

## Evaluation of Social Housing Indicators Case Study District 22 of Tehran

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### ABSTRACT

Housing is one of the most important issues that people have been grappling with and trying to overcome this problem and find a decent answer (Ahari, 1988:89). Perhaps the most important tool in housing planning is housing indicators. Housing social indicators are one of the means and methods of identifying housing features to know efficient parameters in the housing and facilitating any planning and right decision in housing.

Housing issue can be investigated in two aspects of quantitative and qualitative. In a quantitative dimension, regardless of its quality, responsiveness to the needs desired and in the qualitative dimension, type & form of the needs proposed. Housing indicators considered main and determinant in explanation, analysis and making decision that can be used by macro policymakers and planners of housing, provided that they complete understanding, their review and analysis done through basic and applied research & applied properly in the programs. The aim of this paper is considering social indicators of housing in district & it's tried to consider quantitative & qualitative characteristics of housing in district 22 of Tehran in time limit of 1996-2004. To do so, densities, age and quality of buildings & housing ownership were analyzed by research method of analytical and descriptive and SWOT method were used. Research findings shows that housing status in district is in good condition. This status needs special attention of planners to provide essential and circumferential services in housing and access to social important services to reach space balance & social justice.

**KEYWORDS:** urban housing, social indicators, district 22 of Tehran

### 1- INTRODUCTION

Today housing issue is a topic that have ginned the countries with their conditions. While in developed countries, housing is a dimension of social welfare and housing development programs focused on quantitative improvements, in our country housing considered a basic need and providing that is alongside of providing foods and clothing (Sattar zadeh, 2009:5).

In today world, housing have eclipsed many aspects of human life, in a way that more than 50% of family income aligned to it. In addition of economic aspect of housing, which align amount of income to itself, most of mental & social results also related to it, in such way that providing security & soul calmness and cause fundamental transformations in social relations and so on (Maleki, 2011:104).

In common conditions, having right to have a suitable housing is one of the most fundamental pillars of human rights. Right to have a suitable housing were always emphasized in all global compacts. In statement of "committee of economic, social, & cultural rights" of UNO, housing right means having living right in secure & calm environment, maintain the honor and dignity for all people (Rezaee et. al, 2009:2).

Proper indicators of housing are:

- judicial protection of property
- access to services and housing's infrastructure
- accommodating new housings with financial residents' afford
- accessibility to housing for poor social class
- proper place in healthy environment
- accommodation with cultural needs of needy (Rafiee, 2004)

Discussion about housing align the minds of municipal housing authorities to itself for a long time and housing indicators is the most important tool in planning housing. Consideration experiments of different countries about housing indicators verify the most attention to housing (Noori, 2013:2).

Definition of housing & characteristics of proper housing

In addition to physical place, housing also include residential environment includes all the necessary facilitate & services for family welfare & people's employment scheme, training and hygiene. In fact, definition & concept of housing science isn't a residential unit but involve whole residential environments. In other words, housing is something more than a physical shelter and include all necessary public services & facilities for welfare and occupation rights for the users should be long & secure. (Hataminejad et.al,2004:133)

In this paper it tried to study role & importance of housing social indicators in district 22, first housing social indicators is stated. Then analyzing these indicators in region or housing quantity (family density in residential unit, person density in room, person density in residential unit, room density in residential unit, and residential units' density in terms of family resident)& social indicators related to quality housing situation(average level infrastructure housing units & residential units in terms of durability).

## 2- MATERIALS & METHODS

### 2-1- Research Method:

Research method in this paper is a combination of descriptive methods, analytical & case-field and SWOT model which by analyzing demographics, social quantitative and qualitative indicators of housing has used descriptive-analytical methods. Collecting other information is done by library & documents method.

### 2-2- Study Area:

Study limit of this study is district 22 of Tehran population 107820(statistical center of Iran, 2004). This municipality region of Tehran located in an area with  $60km^2$  and with privacy over  $300km^2$  between eastern lengths of  $51^{\circ} 5' 10''$ -  $51^{\circ} 20' 40''$  & northern width of  $35^{\circ} 32' 16''$ -  $35^{\circ} 57' 19''$  in northwest of Tehran & in downstream catchment of Kan River and Wordig. This region is limited in north with central Alborz mountains in east with frontage of Kan River, in south with Tehran- karaj freeway & in west with forests & it's adjacent to district 5 & 21. Northern border of district 22 developed up to the end of southern domain of Alborz in height of 1800m.

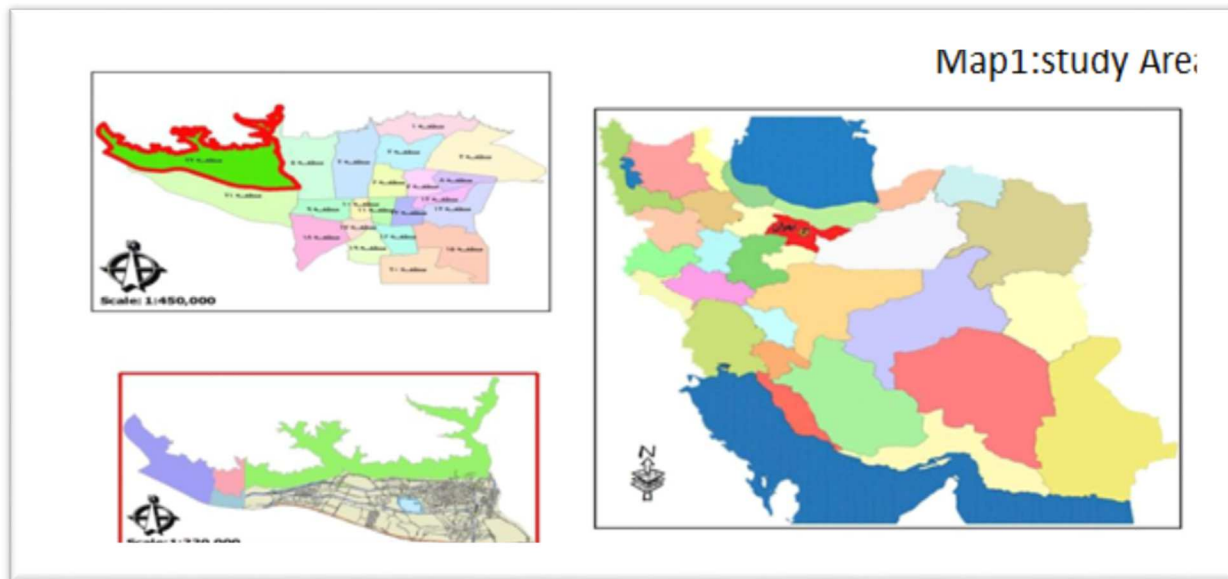


Table 1-population of district 22

population	year
56020	1996
107820	2004
128827	2011

## 3- DISCUSSION

### Housing indicators

Housing issue is considerable in economic. Social and skeletal dimensions and some factors are efficient in its quantity & quality. Among them, housing indicators should be known as the most important tool and main infrastructure which considered in economic, social, & skeletal dimensions (Azizi, 2004: 40).

In order to know housing, different indicators is used, in general, divided into quantitative & qualitative. But as mentioned in housing discussion, access to fundamental services is also of housing indicators & indicating residential units' quality.

### 3-1- quantitative indicators of housing in district 22

#### 3-1-1- family density in residential unit

One of the most important quantitative indicators to know the housing is family density in residential unit.

This indicator obtained from dividing family member on residential units' number. In the best of circumstances reside in each residential unit and in this unit enough space is available for family member & it shows healthy and pleasant function, as small as the indicator is the most efficient it is. Density more than a family in residential unit is a sign of problem and barrier existence in housing producing's market or a sign of insufficiency and problems in effective demand for housing. High density of residential and ratios which shows different residents in residential unit, is a measures in disability of housing unit in producing & offer & accountability to residential needs of families & a sign of inadequate housing production growth rate compared with household formation rate.

**Table 2-family density in residential units(population and housing census)**

Family density in residential unit			Residential unit's number			family		
2011	2004	1996	2011	2004	1996	2011	2004	1996
0/7	0/9	0/9	34198	28373	13663	34101	28145	13587

#### 3-1-2-person density in residential unit

This indicator shows the average number of people in residential unit. This type of indicator shows the family welfare according to residential spaces. This obtained by dividing population number on residential unit's number, as less as it is the residence condition is better. This indicator is one of the housing quality aspects & one of the important factors.

**Table 3-person density in residential unit**

Density of residential units			Number of Housing Units			population		
2011	2004	1996	2011	2004	1996	2011	2004	1996
3/7	3/8	4/1	34198	28373	13663	128827	107820	56020

#### 3-1-3-people density in room

This indicator obtained from dividing resident family on all the rooms in residential unit. Number of people against each room computed by formula P/R and as less as it is shows more independence of family members inside residential unit. This indicator is one of the national development indicators & also one of the most important indicators related to housing.

According to UNO standard, healthy housing exist in a way that person density in room weren't more than one person (Hataminejad, 16:2005). It's considered ratio of room in year 1996 was about 2/1 person in each room and in a year 2004 decreased to 1/6 person and in year 2011 to 1/5 person in each room which show relative improvement in district.

**Table 4-person density in room**

Person density in room	Number in room	Population in person	Family number	Year
2/1	25959	56020	13587	1996
1/6	63834	107820	28145	2004
1/5	81309	128827	34101	2011

#### 3-1-4-room density in residential unit

Increasing average of rooms in residential unit, regardless of how many people reside in each residential unit, shows the welfare improvements of residents (amount of family welfare). This indicator obtained by dividing room number of residential unit on total number of residential units.

As many as this indicator is, it would be better. In field considerations, this indicator has increased in district 22. Average of room number is a good criterion for measuring level of resident's welfare.

**Table 5-room density in residential unit**

Room density in residential unit	Number of total rooms	Number of residential unit	year
1/8	25959	13663	96
2/2	63834	28373	04
2/3	81309	34198	11

**3-2- housing qualitative indicators:**

Housing quality in a way that effect on health, security, and welfare conditions, has a direct effect with income of people. This indicator include factors such as type of material, quality and the age of building, building life, technology practices and necessary engineering.

**3-2-1-building archaism**

One of the indicators which is important in buildings' qualitative analyzing is building archaism and year of building completion to show that how much of existing building deserve living and how much of them would remove from existing wealth because of building's end of useful age.

**Table 7-residential units in terms of durability**

Other	Weak	Half durable	Durable	Year
9%	49%	34%	8%	1996
9.5%	27%	19%	44.5%	2004
3.5%	8%	12.5%	76%	2011

Since district 22 isn't so archaic, its residential units' age is small. The average of building archaism in district 22 is about 12. The most lifetime of a building in district related to 30 years ago and the least lifetime related to a year ago. Totally 90% of residential units in district 22 have archaism less than 20 years and less than 10% of them have archaism more than 20 years. Of course most of district residential units have archaism between 5 to 10. In fact, most of the construction done through the years of 2006 to 2011, which was a growth period of district 22.

**Table 6-percentage of housing units in terms of building archaism**

undeclared	More than 30 years	20-30 years	10-20 years	Less than 10 year	Total residential units	Year
0.5%	21%	35%	27%	16.5%	15900	1996
0.5%	10%	16%	13%	60.5%	42830	2004
0.5%	8.4%	13.9%	10.7%	66.5%	34198	2011

**3-3-housing ownership**

Housing ownership of families resided in is another indicator which used in housing analysis. Developments show great intensity to housing ownership.

Security and feel secure in housing ownership is an important social and mental dimension. It causes family member feel secure in the prospects of living & it brings more mental comfort. On the other hand, in order to poor people improve their housing condition, ownership security is so important (Akrami, 1998:26). Status of this indicator in district 22 are the following

**Table 8-ownership percentage of residential unit**

	Undeclared	Other	Free	The service	rented	Civil lords	Civilian areas & objects	Year
		0.5%	2.5%		11%	0	86%	1996
	0.1%	0.2%	0.5%		16.5%	28%	54.5%	2004
	0.2%	0.5%	0.5%		23.5%	27.2%	48.1%	2011

**3-4- Housing analysis in district 22 by SWOT model**

Is one of the consideration models that by using two internal & external factors, which each of them include two SWOT model positive & negative, considers characteristics of studied limit. Internal factors obtained from inside of district, involve weaknesses & strengths. External factors are also related to the macro level and in fact get the reason of being from outside. External factors include opportunities & threats. By using this model could realize many capabilities and limitations of geographical space in different fields. Here by this model analyze housing section in district:

**Table 9: Weaknesses, strengths, weaknesses, opportunities and threats.(SWOT Model)**

External factors		Internal factors		Background indicator
threats	opportunities	weaknesses	strengths	
-existing speculation of ground and housing -high-voltage transmission tower & related environmental damage -possibility of district horizontal spread	-remove part of housing difficult in Tehran through residing in district 22 -existing many wasteland around limited area -increase residential building capital consequently decrease family dimension & became core -decrease person quantitative indicator in residential unit & person in room	-increase the density of tall building and construction -increase the mass process -existing bribery & speculation of housing -overcome of less aspects of construction on qualitative aspects -inattention to Iranian cultural characteristics in designing new housings at pre-periods of urban management in this district -lack of comprehensive definition of housing & living spaces -inattention to psychological & aesthetic qualities in designing housing	-having low prices in housing & ground compare to Tehran -having low building density -a high level of residential units -using concrete and durable materials in constructions	housing

Source: Authors

**4- Conclusion:**

Since man is a social creature and making family is one of his/her basic needs, is the most important & basic social group, hence humans need housing to protect family & determining family structure. Housing indicators is a suitable tool to measure housing policies' standards and regulations. With the help of these indicators could view tangible picture of housing conditions & when reaching goals of housing problems, shortcomings appear. The aim of housing indicators is providing suitable scientific information that can be used as a social aspects reflection to know dimensions & related policies' codification. In this paper with regard to social indicators' role in housing planning, some social indicators of district 22 has been introduced & the role of these indicators has been considered. First discussion is the partly normal family dimension in district. Pleasant standard for each room is one person and this district should have mutations in this indicator till reach to a normal indicator. Totally among two census report gap 1996-2004 and 2004-2011 there's increase in quantitative indicators. However there need more effort. Housing planners should give more attention to housing quality, because it has effect on people behavior.

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