

# Towards Creating Child-friendly Cities: Allocation of Urban Spaces to Children in Mashhad, Iran

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## Abstract

*Children are the future contributors and decision makers of the world. They are equal citizens with the same rights as adults and are valued as citizens of today, rather than future citizens or citizens of tomorrow. The day is coming when the majority of the world's children will grow up in cities and towns. Every year, the world's urban population increases by approximately 60 million people. Most of this growth is taking place in low- and middle-income countries. Asia is home to half of the world's urban population. It is now thought that six out of 10 of our future children will grow up in cities, in poverty, at risk. Yet, most cities are largely unfriendly to children and have governments that take few steps to address children's needs and assess children's priorities. This paper aims to review the urban facilities per capita assigned to children in the urban spaces of Mashhad city. In this study, the desired information collected by referring to the documents and based on these information the conclusion has been made. The findings indicate that the rate of facilities per capita assigned to the spaces for children in the development plans of Mashhad do not meet the needs of this part of community. Therefore, pay attention to the needs of children in the development plans of Mashhad and moving toward child-friendly city can be provide better living conditions not only for children but also for all citizens.*

**Keywords:** Child-friendly City, Children, Urban Spaces, Urban Development Plans, Mashhad

## Introduction

Children are the future decision makers of the world (Malone, 2010). They are equal citizens with the equal rights as adults and are valued as citizens of today, rather than citizens of tomorrow or future citizens (Tranter and Pawson, 2010; Penrith City Council, 2012).

The day is coming when the majority of the world's children will grow up in urban areas. Already, half of all people live in cities. By mid-century, over two thirds of the world population will call these places home (UNICEF, 2012). It is now thought that six out of ten of our future children will grow up in cities, in poverty, at risk and Projections suggest that by 2025, six out of ten children will live in urban areas in low- and middle-income nations (UNICEF, 2004; Satterthwaite et al., 1996).

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Among various groups living in a community, children more than others, lack political and economic power, so they deserve special attention (Kingston et al., 2007). There are many more urban children now, and hundreds of millions of them live in the kind of deep poverty that is a challenge to health, life and future prospects (Bartlett, 2002). Because children are the most vulnerable to environmental and social damage, in terms of both their likelihood of personal harm and the constraints these place on their capacity to reach their fullest potential, they are exposed to the greatest risk (Malone, 2001).

Yet, most cities are largely unfriendly to children and have governments that take few steps to assess children's priorities and address children's needs, so policy makers, social workers and urban planners need to pay special attention to the rights and interests of children (Riggio, 2002; Nikku and Pokhre, 2013). Child-friendly city (CFC) can help urban planners in achieving this goal. Child-friendly cities movement has been developing throughout the world as a growing number of city governments in low-, middle- and high-income countries (Riggio, 2002). A child-friendly city is a sustainable city, a city that focuses on a quality of life and soft factors (Eisinger, 2012). Receiving basic services such as health care and education, meeting friends and playing are the child-friendly cities indicators. In order to achieve these fundamental factors in a child-friendly city, urban spaces for children are required.

This paper aims to reviewing the urban facilities per capita assigned to children in the urban spaces of Mashhad, Iran. The purpose of this paper is devoted to the study of children's urban per capita in urban development projects in Mashhad, from the beginning till today and the existing condition. It is obvious that the most urban services for children include kindergartens, elementary schools, parks, sports and games' space, children's library, sports fields and open space, which the per capita amount of these spaces has been discussed in this article.

## **Literature Review**

The background to many recent child-environment studies is UN Convention on the Rights of Children, CRC (Nordström, 2010). In 1989, the United Nations ratified the Convention on the Rights of the Child, which places the relationship between children and their societies and cities on new ground. The Convention recognized that children have basic rights as persons, in harmony with the Universal Declaration of Human Rights, but in addition, they have special requirements for protection and provision, given their vulnerability and requirements for healthy growth. The articles of the Convention, therefore, can be divided into three groups: those to ensure the protection of children, provision for their basic needs and participation in decisions that affect their lives, to the level of their ability (Chawla and Salvadori, 2003).

Building on the Convention, Agenda 21 (the Program of Action from the United Nations Conference on Environment and Development in 1992) recognizes children and youth as main actors who must be involved in participatory processes of environmental management and decision making. In a further step, the Habitat Agenda (the Program of Action from the Second United Nations Conference on Human Settlements in 1996) identifies children and youth as critical resources for the creation of sustainable settlements (Chawla and Salvadori, 2003).

Several definitions of what constitutes a child-friendly city appear in the academic and policy literature (Penrith City Council, 2012). It is also recognised that there are no standard models of what a child-friendly city is – each society needs to define that for itself (Penrith City Council, 2012). In some contexts, especially in the Global North, emphasis seems to be on physical and environmental issues such as safe and green environments, developing parks and green spaces,

improving recreational areas, child participation and controlling traffic in order to make streets safer for young citizens. In the Global South and Low-income countries, the focus is more frequently on increasing access to basic services (Riggio and Kilbane, 2000) and to prioritize service delivery in education, health, nutrition and child protection (Nikku and Pokhre, 2013). UNICEF defines a Child-friendly city as “a local system of good governance committed to fulfilling children’s rights” (UNICEF, 2004). It is a city, or more generally a system of local governance, committed to fulfilling children’s rights, including their right to:

- Influence decisions about their city
- Express their opinion on the city they want
- Participate in family, community and social life
- Receive basic services such as health care and education
- Drink safe water and have access to proper sanitation
- Be protected from exploitation, violence and abuse
- Walk safely in the streets on their own
- Meet friends and play
- Have green spaces for plants and animals
- Live in an unpolluted environment
- Participate in cultural and social events
- Be an equal citizen of their city with access to every service, regardless of ethnic origin, religion, income, gender or disability (UNICEF, 2004; Malone, 2001)

The International Secretariat of CFC initiative has identified nine principal building blocks for local administrations aiming to become “child-friendly”. They are:

- (1) Child participation at all stages of planning and implementation
- (2) Child-friendly legislation
- (3) A child rights strategy
- (4) A coordinating mechanism or agency for children
- (5) Assessment of policy and program impact on children
- (6) A budget and resources for children
- (7) A regular report on the state of children in the city
- (8) Awareness-raising and capacity-building on child rights
- (9) Independent advocacy for children (UNICEF, 2004)

At the operational level, Child-friendly spaces attempts to integrate primary and fundamental services in health, primary education, child care and psychosocial development into a protective environment that is both family-focused and community-based (UNICEF, 2004). Children are seen and heard in a child-friendly city. Their active participation as citizens and rights-holders is promoted, ensuring the freedom to express their views and making sure that their views are taken seriously (Mayor of London, 2004).

In terms of urban planning, a good city for children should undergo the following terms:

- The Physical and social organization in a child-friendly city, should be based upon the trust, fairness and justice and promote them. In this case, it is necessary to create a space which is associated with the presence of an adult to ensure the safety of child. The public spaces should be planned and designed in such a manner that enhance the relationship between people in terms of age and social class.

- The chance of observing people, adults and children in terms of various activities and occupations is a social attraction for children.
- Adults' involvement to support the children of city and neighborhoods as well as theirs.
- Creating the safe urban spaces free from any commuting hazards, that let children to discover and observe their neighborhoods and neighbors.
- A clear, health and comprehensible urban environment where children are able to walk readily.
- Paying attention to valuable social and cultural roles and participating children in social events and rituals.
- Proximity of the work place and home, and accessibility of children and parents is necessary.
- Creating the enthusiastic elements for children in urban spaces and avenues.
- Events and ceremonies that enhance the national, religious and historical feelings and interests in the society and its traditions.
- Type of urban texture, attractive buildings, color, materials, figure and formation of buildings which exciting for children are important in urban design (Shieh, 2006; Lennard, 1997).

Considering urban spaces that are suitable for children is one of the main features of a child-friendly city. The urban space should share value related to natural environment and associate children with natural elements such as; water, plants, trees, animals, birds and insects. Children could learn in such a way and love the nature and preserve it (Lennard, 1997).

Extensive efforts in the field of community life in cities have been made to improve the children conditions in various points of world. We could mention to creating great neighborhood parks in New York for improving the physical and mental health of children and developing the outdoor opportunities especially for low-income families during the years 1995 to 1997 as well as researches such as the effect of physical environment on children and improving the conditions in cities, the alphabets of life in city including Multi Media technologies in the city neighborhoods -Manhattan, New York- leading by the neighborhood schools, the initiative of creating the large green spaces for sports and plays in residential developments and maintaining the streets and passages (www.web.gc.cuny; Shieh, 2006).

Another important point in the field of community life is the design of appropriate spaces for children. Space is an infinite fact which is defined through limitation, focus and activity. Space, as an urban factor, is a place for activity and in terms of urban planning, the spaces are associated with buildings surrounded. The urban spaces are special elements with aesthetic values, which play a vital and active role. According to this definition, parks, open spaces, squares, public places such as parks and open sport spaces are considered the urban spaces. On the other hand, the space is defined upon the type of usage. The urban spaces are an organized, arrayed, and regulated structure for human activities (Tavasoli & Bonyadi, 1990; Shieh, 2006; Butterworth, 2000).

Children in urban spaces are encountered with diverse population in terms of age groups, cultural and social level. The road between home and schools is located through such spaces and most of leisure time is spent there. If children are not supervised or guided properly, there is no restriction about what perceived in such spaces. The urban spaces have a leading role, while it can play an instructive role for children or a destructive role. Related to this latter perspective, they are considered the expressive tongue of city and the most important relation factor to

various class of society (Sadoughian Zadeh, 1996; Harris et al., 2000). Foremost, neighborhoods and their interior spaces, should be planned to develop the level of the healthy social relationship. Today, the urban planners are well aware that constructing a suitable urban spaces for children are not practicable and parents explicitly, express their concern over the plays of children in avenues and pedestrians located at the distance between home and school. We should construct spaces that children be able to communicate through their childhood emotions and characteristics and spend time over there in tranquility (Economic and Social Research Council, 1997). Le Corbusier, the famous architect, has planned a readily and efficient initiative that emphasizes the presence of children in city. In his suggestive city, playing spaces, and residential complexes are planned in suitable locations.

In Iran, the concept of child-friendly cities does not have a long record. It can be probably said that the first serious attention to this issue took place, after the earthquake in Bam in 2003 in a way that UNICEF with the cooperation of the other institutions defined the each child-friendly research with the purpose of “collective participation” of the children and set a goal for it. The project of child-friendly city has been planning in Tehran since 2009 in Tehran Municipality’s Office of Community Participation and through the required studies of this city in the next ten years, it will approach the criteria, which has been notified in the Legislation in this area by the City Council of Tehran.

## **Research Methodology**

Research methodology in this study is a descriptive-analytic approach, which by referring to related documents, urban development plans and the theoretical bases of the pundits is trying to study the spaces dedicated to the children in the city. The considered case study is the city of Mashhad. In this regard, three urban land use, include educational, sport and green space land use are reviewed in two master plans of Mashhad and according to the Development Project Studies of Mashhad the Distribution of these land uses were specified on the map. Data collection instruments has been included of library studies of existing documents, related sites and books, Khazeni and Mehrazan Master plans of city of Mashhad and the information contained in the Institution of the Development Projects Studies of the city of Mashhad. Based on these information the conclusion has been made.

## **Findings**

### **Children in the Urban Spaces of Mashhad City**

The urban planning in Mashhad is not suitable for children. The city is not walkable for adults or children’s commuting. The area of pedestrians get smaller and smaller every day for enhancing the traffic movement; therefore, there is no solution for the child about how travels the distance between the home and the school. In all neighborhoods, the type of land use draws the attention to economic benefits; therefore, no attention paid to children housing requirements such as sport open spaces, green spaces, libraries and social centers for children. In spite of the fact that, the kindergartens can play a constructive role in child social education, they are more likely to use for nursing the child. In this respect, the kindergartens instead of proper sprawl in city and neighborhoods, mostly located adjacent to administrative centers or next to the main and busy streets, where proper for a car to stop for a moment.

Another important problem is the absence of amenities and child well-being services in neighborhoods and open spaces. The most important recreation elements for children in

Mashhad are parks and green spaces. Despite the fact that the number of parks was added during the recent decade, the distances between the parks and the residential areas are long. The green spaces are more likely to be taken advantage when there is enough opportunity for parents for recreation. Whilst children, as for the population and building density and sense of enclosure, need to use such spaces. The sport spaces are so limited and the number of children's cultural centers lack the required equipments – considered a part of public cultural centers- is so little. The number of child libraries, the institute of intellectual development, is so low. Artistic training and entertainment centers are limited and children are entitled to pay the charge to the private sectors. The science centers of children -the Science World- is the same and child-friendly films are produced in limited numbers. The artistic and cultural museums are centralized and don't spread over urban districts of Mashhad properly.

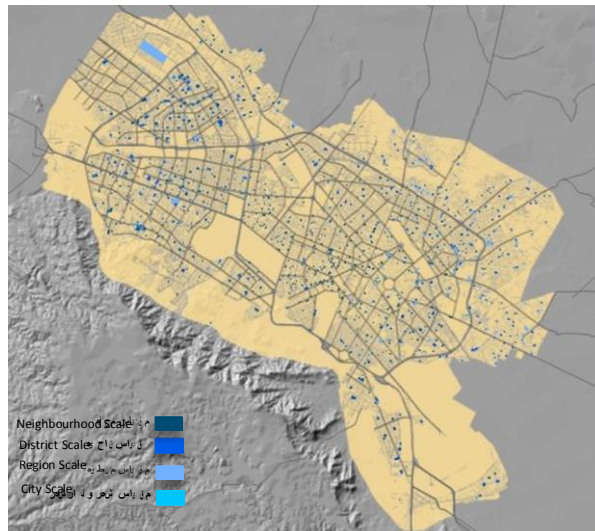
### **The Distribution of Urban Facilities Associated with the Children in the City of Mashhad**

One of the features of child-friendly cities, in achieving sustainable development of the future cities is devoting proper spaces to the children in the cities. The main urban facilities for children includes educational spaces (pre-school, elementary school and guidance school), green spaces (parks and gardens), children's sport and play spaces, children's library, sports playground and open spaces. Per capita provision and the extent of the area of the spaces assigned to each land use are the important parts in any urban development plan, which in Iran, this area and per capita are mentioned in urban master plans. In the city of Mashhad since the beginning till now, two master plans called Khazeni Master Plan and Mehrazan Master Plan has been provided and implemented which have been discussed about the per capita study assigned to the applications mentioned in these plans and the existing status. Khazeni Master Plan of the city of Mashhad has been placed on the agenda since 1967 and during March 1970 and April 1971, its first and second stages was done and approved (Khazeni Consulting Engineers, 1971). In fact, this plan is the first master plan approved by the city of Mashhad and now it is also the basis of action for a major part of the city. After that, Mehrazan Master Plan was approved in 1993 (Mehrazan Consulting Architects and Planners, 1993). In this regard, three urban land use, include educational, sport and green space land use are reviewed in these two master plans.

#### **1- Educational Land Use**

Among children's rights, which attracts attention in the child-friendly cities, having appropriate education is important; therefore, paying attention to create educational spaces in the cities is important in this field. Educational land use per capita has been studied in the city of Mashhad in two master plans, Khazeni and Mehrazan and in the current situation and has been compared with the standard per capita. It should be noted that the target group in this study are the children who are aged between 0 to 14 years old; therefore, the response scale to this age group is at the level of the neighbourhood and region, which includes kindergarten, elementary school and guidance school. The proposed per capita for the educational land use in Khazeni Master Plan is 10.55 square meters, which this figure has been calculated with calculations of the area and city scale land use (High school and university) and the mentioned per capita has not separately been calculated for the neighborhood and the region. Therefore, we cannot have the correct analysis of the extent of the realization of this urban per capita in the current situation for the children. The proposed per capita of the educational land use in Mehrazan Master Plan on the scale of the neighborhood and the region is 1.43 square meters (Mehrazan Consulting Architects and Planners, 1993).

The standard of urban per capita of educational land use in different countries varies and depends on population. Through the study of the standard per capita of the governmental organizations in Iran and the proposed per capita of various references, it can be observed that the proposed per capita is much lower than the standard per capita. Now the educational land use per capita in the city of Mashhad is 1.21 square meters, which from this rate 0.35 square meters is related to the educational land use of the neighbourhood scale and 0.39 square meters is allocated to the educational land use of the region scale, which again compared with the standard per capita, the lack of a major space for children is obvious.



**Fig. 1:** Distribution of Educational Land Use  
 Source: Development Project Studies of Mashhad

**Table 1: Educational Land Use Per Capita**

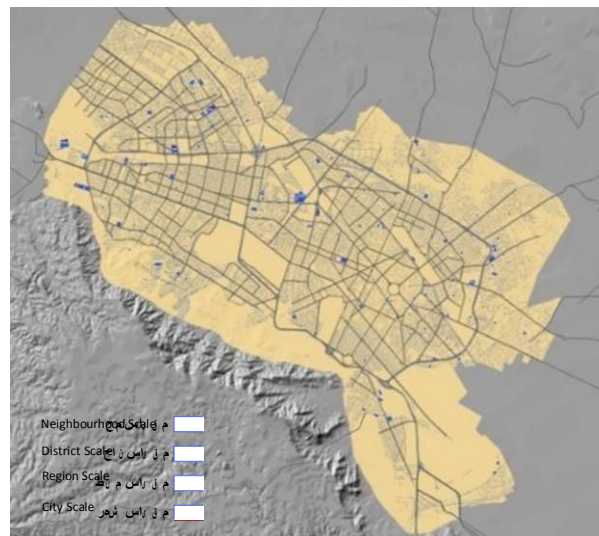
Current Situation	Mehrazan Master Plan	Khazeni Master Plan	standard educational land use per capita	Scale of Function	Function	Land Use
			Organization of Renovation of schools			
0.35	1	10.55	5.54	Neighbourhood	Kindergarten and Elementary School	Educational
0.39	0.43		6.18	Region	Guidance School	



**Fig. 1:** The high school and primary school in Mashhad: educational land use  
 Source: author

## 2- Sport Land Use

Children spend less time playing outside than they used to, and while outside, they are chaperoned more often (Gaster, 1991; Hillman et al.,1990; Karsten, 2002; van der Spek and Noyon, 1995). In the Khazeni Master Plan none per capita has been proposed for this important urban land use. In Mehrazan Master Plan the proposed per capita of 2.19 square meters for sport land use has been offered, which from this amount, 1.54 square meters is specified for the target group of this research that includes sport playground, sport hall, indoor swimming pool and a small stadiums. The present per capita of this land use in the City of Mashhad is 0.4. By studying the standard per capita, it can be observed that the sport land use per capita in the City of Mashhad both in the development plans and the current situation is less than the standard per capita.



**Fig. 2:** Distribution of Sport Land Use  
 Source: Development Project Studies of Mashhad

**Table 2: Sport Land Use Per Capita**

Current Situation	Mehrazan Master Plan	Khazeni Master Plan	Standard per capita		Land Use
			Site Planning	Time Saver	
0.4	1.54	–	5	4.5	Sport



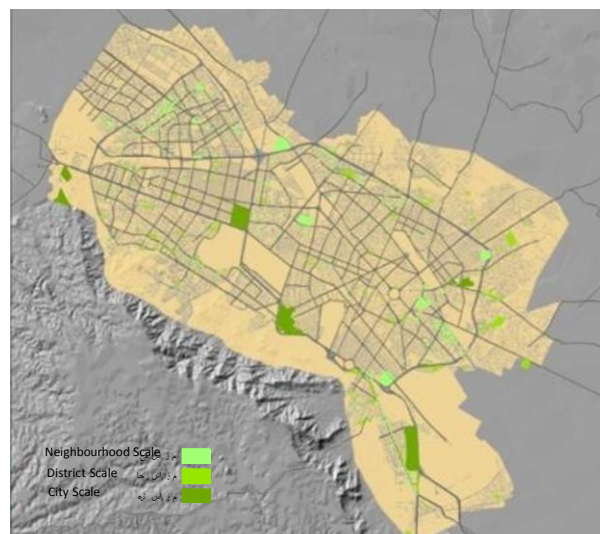


**Fig. 2:** The playground and Stadium in Mashhad: sport land use  
Source: author

### 3- Green Space Land Use

Various researches on the effect of green area on children's behavior have been conducted. Recent studies have also shown positive associations between access to local parks and playgrounds and children's physical activity (Timperio et al., 2004; Epstein et al., 2006; Roemmich et al., 2006). The environments and open spaces (such as green spaces) have a significant role on the children's behaviors and perceptions and providing their growth and creativity.

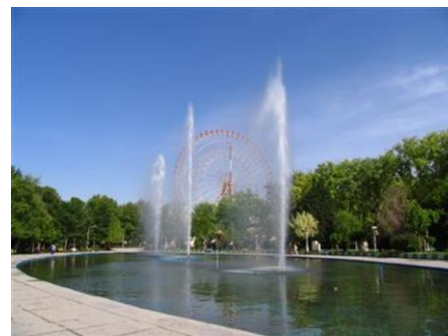
In the Khazeni Master Plan the green space land use per capita has been considered 10.55 square meters, which this per capita has not calculated separately for the neighborhood, the district, the region and the city, therefore, we cannot have a correct analysis of the per capita amount assigned to the children in this plan. In Mehrazan Master Plan, the proposed per capita for the green space land use has been proposed of 12.53 square meters, which from this amount 4.4 square meters is for the target group of this study, which includes children's parks, local parks, regional parks and the city parks. The green space per capita of the City of Mashhad currently is 2.62 square meters, which 1.5 square meters of it is on the scale of the present study. By studying the standard per capita, it can be observed that the green space land use per capita for children in the City of Mashhad both in the development plans and in the current situation is less than the standard per capita.



**Fig. 3:** Distribution of Green Space Land Use  
Source: Development Project Studies of Mashhad

**Table 3: Green Space Land Use Per Capita**

Current Situation	Mehrazan Master Plan	Khazeni Master Plan	Standard per capita	Scale of Function	Function	Land Use
			Urban Land Use Planning			
0.91	1.27	10.55	4	Neighbourhood	children's parks and local parks	Green Space
0.59	1.52		5	Region	regional parks	
1.12	1.61		-	City	city park	



**Fig. 3:** The parks in Mashhad: green space land use  
 Source: author

### Conclusions and Recommendations

UNICEF and the United Nations Human Settlement Program collaborated for 15 years in the field of child-friendly cities plan in order to create a ground for partnership, which place the children at the centre of the agenda of urban programs and by provide services and creating child supportive spaces gives them the childhood which they deserve; therefore, paying attention to these plans and the global achievements in the field of child-friendly cities should be put on the agenda of urban plans. It seems in the current situation, the question of child-friendly city is not be taken into consideration seriously. Children are generally ignored in urban development plans and it can even be said that constructions and development projects implementation in the cities often reduces the children's playground and insecure the public space for them more than before. Nowadays, it is emphasized on this issue that playing and in particular lively plays is essential for the proper growth of the child, but the need of children to play has always encountered with numerous obstacles, especially in crowded and densely populated areas of the city and creates many restrictions for them.

One of the main objectives of the land use planning is the response to a variety of needs of the residents of the area through the establishment of hierarchical activities and different land uses in the assigned spaces. Accordingly, the required levels of the urban land use in the neighbourhood, district, region and city scales and beyond on the basis of the upstream projects' per capita is calculated, in order to estimate the lack of the required service levels in the current situation and provide programs to eliminate the possible deficiencies in the services. But since

the proposed per capita criterion for Khazeni Master Plan has been on the scale of the entire city, the calculation of the shortage of land uses' levels specialized for children is not reliable. The proposed per capita of the Mehrazan Master Plan has been used, because the land use per capita has been suggested through the separate skeletal divisions. The findings suggest that per capita amount allocated to the spaces specified for children in the development plan of the City of Mashhad in comparison to the population of the children does not meet the needs of this class of the society. In Mashhad, thousands of children are busy playing, who do not have appropriate play conditions, equipment and instruments and there is also no center to introduce to the citizens and parents, plays, play culture, play standards and appropriate toys. So in order to eliminate the need of the children for appropriate play instruments, to create relationships between peers, identifying new phenomenon and to encounter new issues for the children during the play, to correctly train the use of the toys, to promote the children's health and to train the life skills and lifestyle through games and toys and finally, to promote the culture of playing in the family, City of Mashhad needs to set up toy houses and consider the per capita of this application in the urban development plans, so that in addition to achieving the children's cognitive development, mental, emotional and of children's physical objectives, it improves the families' performance in playing with children. In total, according to figures and statistics obtained from the study of the existing levels and per capita and proposing the upstream projects, in the existing situation we encounter serious deficiencies for the children, in order to provide the needs of this population now and in the future. Naturally these deficiencies over time with the increase of population and according to the population capacity in Mashhad will be more and more crucial, which will require planning and optimal design to upgrade the quality of settlement and to increase the levels of services.

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