

INFLUENTIAL ELEMENTS IN THE DEVELOPMENT OF IRAN'S URBAN POPULATION

Rahimberdi Annamoradnejad^{1*}, Taher Safarrad¹

Department of Geography and Urban Planning,
Mazandaran University, Babolsar, Iran

Email: r.moradnejad@umz.ac.ir, t. safarrad@umz.ac.ir

ABSTRACT

Urbanization is the concept of increasing urban population and the number of cities in a region. The growing trend of urbanization in developing countries is one of the challenges of today's world due to the occurrence of problems and its negative consequences. This article analyses the spatial distribution of Iran's urban areas and the factors affecting it, examines the rate of change in the country's urban population over 6 decades, and finally predicts the change in the country's urban population until 2030. The main question of the research is how urbanization in Iran has changed over the last 6 decades (1956-2016) and what factors have influenced it. The results showed that urbanization in Iran, as in most developing countries, has grown rapidly in recent decades, with the country's urban population increasing more than tenfold over the past six decades. The reasons for the rapid growth of the urban population in Iran can be listed as follows: the massive migration of villagers to urban areas, the development of industries in big cities, land reforms, the occurrence of the Islamic Revolution, the Iraq-Iran war, the continuation of the centralization process, regional inequalities in the country, the tendency of Afghan immigrants to live in the city and the implementation of some inappropriate laws, such as the abolition of the population criteria for turning a village into a city, the high natural population growth rate in the cities due to the suspension of the family planning program.

Key words: *Urban population, Urbanization, Population Growth Rate, Government policies, Iran*

INTRODUCTION

Urbanization refers to both the increase in the proportion of the population living in urban areas and the associated growth in the number of urban dwellers, the size of cities and the total area occupied by urban settlements (UN, 2018). On the other hand, urbanization is about two related issues. First, urbanization means the increase in the population living in urban areas compared to the total population of a country. Urbanization means a development towards more efficient and advanced use of resources and technology in a society, in this case in Iran (Jauhiainen and Eyvazlu, 2018). Traditionally, urbanization is mostly associated with positive economic outcomes such as higher incomes and growth. By providing better access to goods and services, employment opportunities, information and increased demand for agricultural products (as they create markets for farmers), urban areas have the potential to stimulate economic growth in general and that of the rural economy in particular (Dorosh & Thurlow, 2012). In doing so, they can reduce disparities between urban and rural households (OECD¹ & European Commission, 2020) and increase productivity, growth and living standards. For example, urban-rural integration has facilitated both the flow of agricultural goods to cities and the flow of industrial goods and services to rural areas, increasing the productivity of the agricultural sector and thus raising living standards (Michaels, Rauch, & Redding,

¹ . OECD = Organization for Economic Co-operation and Development

2012). In other words, if well managed, the structural and spatial transformation that follows urbanization not only affects the flow of goods and services, but also puts countries on a long-term path to prosperity (World Bank, 2020).

For the first time in history, the majority of people now live in urban areas and the urban population is growing rapidly (UN, 2017). Urbanization is not confined to a particular country or region of the world, as it is a phenomenon that is currently affecting every nation in the world. In 1960, 34% of the world's population lived in urban areas, in 1990 it was only 43%, but by 2014 the urban population accounted for 54% of the world's population and continues to grow. By 2050, the proportion of people living in urban areas is expected to reach 66% (UNDESA², 2014; UN-Habitat, 2016; UNDESA,2019). There have been concerns that with the current rapid growth of the world's population, the trend of shifting from rural to urban settlements is likely to continue and the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050, with almost 90% of this increase taking place in Asia and Africa (UN, 2018).

The rate of urbanization varies from one country to another, even among countries in the same region (Chen, 1991). Although there is a similar trend of urbanization in developing and developed countries of the world, there are still differences in each country (Bodo, 2015). In the developing countries, urbanization became noticeable in the late twentieth century, before 1950, urbanization was a phenomenon common only to developed countries, which experienced rapid urbanization during the period of industrialization in Europe and North America in the 19th and early 20th centuries. The movement was usually from rural settlements to urban centers for better jobs, but after 1950 this trend slowed down in developed countries (Mondal, 2019). In fact, currently, people are moving from the big cities in the developed countries to the rural areas, resulting in what is considered as counter-urbanization (Mondal, 2019). This trend has led to the growth of suburbs.

Reasons for rapid urban population growth

In relation to the reasons for the rapid growth of urbanization, especially in developing countries, it should be said that Rural-urban migration is the voluntary movement of people (as individuals, family units or large groups) from their place of origin (place of birth or residence) to a new location with the intention of settling there temporarily or permanently; due to economic and technological growth or development in their desired destination. The absence of basic amenities, lack of government presence and little or no commercial activity in rural areas of most developing countries act as push factors driving people away from rural settlements, while the cities of these countries remain the focus of government development projects and the center of various opportunities, forcing rural dwellers to flock to cities in large numbers due to these pull factors. Especially in developing countries, the main causative factor is rural-urban migration (Bodo, 2015). Governments are biased towards rural settlements because they pay special wage structures in urban areas (Gibert and Gugler, 1982). It is believed that there is a surplus of employment opportunities in the cities as there are many industries that offer high wages (Todaro, 1979). There are more educational institutions, health facilities, better housing, good road networks and larger markets for residents of cities. Most rural dwellers in some of the poorest countries do not have electricity, so they often desire the urban lifestyle with beautiful street lighting at night. This factor also makes natural increase in cities more noticeable. In the absence of proper planning and supportive policies, urbanization can increase discrimination, economic inequality and limited growth spillovers (Sakketa, 2020).

The main cause of rapid population growth in the world today is due to poor government policies that encourage the concentration of basic social amenities and employment opportunities only in the cities; leading to massive rural-urban migration. Poor urban planning, poor policy implementation and government

² .UNDESA= United Nations : Department of Economic and Social Affairs

focus on urban development by locating major development projects only in the urban centers have contributed immensely to the rapid population growth in the cities of developing countries, leading to an urban traffic jam of crisis (Bodo,2019). urbanization, which is usually accompanied by industrialization, should normally lead to an improvement in the economic conditions and standard of living of the population, as is the case in developed countries. Unfortunately, urbanization in most developing countries does not show any significant or improvement in the living standards of the population; rather, in some African countries, urbanization leads to wars and armed conflicts, insecurity, poverty and diseases (Boadi, et al, 2005; Fay and Opal, 2000). Most urban centers in developing countries are unable to meet the needs of the growing population, so urban dwellers turn to the informal sector for employment opportunities (Gundogan and Bicerli, 2009).

In relation to the topic of the current research, studies have been conducted in Iran by researchers who were able to provide an answer to the research question, for example, the following can be mentioned:

- Javaheri and Ebrahimi (2022) in their article titled "Investigating the factors affecting urbanization rates in Iranian provinces: spatial econometric method", examined the development of urbanization at the level of Iranian provinces and concluded that Iran has experienced one of the fastest growing urbanization processes in the world, where about 75% of the population now lives in urban areas. The variation in the rate of urbanization across Iran's provinces has ranged from about 48% to 95%. Agriculture and industrialization are the main variables explaining urbanization in Iran.

Sturtevant (2014) in an article titled "The New District of Columbia: What Population Growth and Demographic Change Mean for the City" showed that Population growth was fueled by an influx of white residents and an unprecedented loss of African Americans. This article explores the population and demographic trends in the District of Columbia between 2000 and 2010 by examining the socioeconomic characteristics of the city's in-migrants, out-migrants, and nonmovers to explore evidence of gentrification.

- Navabakhsh and Fathi (2007) in an article titled "urbanization Growth and Development in Iran with Emphasis on Socio-Economic Activities" considered the dominant pattern in Iran's urban development to be the dominance of a single city and the predominance of centralization policies and believe that in recent decades Iran has experienced several different booms, including the oil boom, the urbanization boom and the rapid population growth boom. In such a situation, urbanization will be associated with many consequences, including the distribution of injustice, the spread of social damage and increasing social heterogeneity, and will contribute to the spread of all kinds of social, economic and cultural crises.

Given the importance of the issue and the growing trend of urbanization, especially in developing countries, the main question of the research is how urbanization in Iran has changed over the past 6 decades and what factors have influenced it.

METHODOLOGY AND STUDY AREA

This research is a descriptive-analytical type of research and has used documentary method to collect data. In this regard, the required statistics have been obtained from the official website of the Statistical Center of Iran, the website of the Ministry of Roads and Urban Development and other related centers. In this direction, an attempt has been made to study the developments of 60 decades (from 1956 to 2016). More recent statistics are less reliable because they are not based on a general census but on sampling. The last general census in Iran was conducted in 2016.

Iran is one of the most populous countries in the Middle East, bordering Turkey, Iraq, Afghanistan, Pakistan, Turkmenistan, Azerbaijan and Armenia. According to the latest census (2016), Iran's population is around 80 million people, 74% of whom live in urban areas. The country is characterized by rapid population

growth, ethnic diversity and a growing number of large cities. The study of settlement life in Iran is all the more important because of its antiquity, development and instability. As settlement in Iran has developed over time, many cities have also been destroyed, so that the remaining works are not sufficient to determine their location and position, and sometimes there are no works at all. There is nothing left of them. This kind of changes can be seen mainly in the big cities, because the big cities have been promoted and degraded as a result of changes in power, according to the importance of their geographical location and the role that their geographical location has played in solving the problems of concentration and settlement in the Iranian plateau (Lockhart, 1960:18). The central and south-eastern regions of Iran, the desert regions, are not very favorable for the development of urban life. Figure 1 shows the location of Iranian cities in relation to natural conditions and population centers. This means that the density of cities and villages is higher in areas where the amount of rainfall and atmospheric precipitation is suitable for agriculture and its development. On the other hand, there are very few urban and rural centers in the central, eastern and south-eastern regions of Iran, where rainfall is insufficient for plant growth. Due to its geographical location, the amount of rainfall in Iran has a clear relationship with longitude. Rainfall intensity decreases from west to east, and the meridian of 52 degrees separates the hot and dry weather in the east from the mild and humid weather in the west. In addition, the improvement of the climatic situation from low to high latitudes has resulted in a significant percentage of the country's urban population settling between 35 and 40 degrees latitude (Zanjani, 1990). Some human factors also played an important role in the formation of densely populated urban centers in Iran. These include the decision of the central government to create a new city (for example, the creation of 17 new cities after the Islamic Revolution) or changing of the capital (throughout history, the capital of Iran has been moved several times, and each time a city was chosen as the capital, that densely populated city), religious factors such as the presence of the tombs of leaders in a region also caused the attraction of population and the formation of a densely populated city such as Mashhad and Qom, Historical events such as internal or external wars (such as Iraq-Iran war which caused some population displacements from the border areas to the internal parts) and also the existence of valuable mines such as oil in Khuzestan province led to the formation of new cities and the development of port cities such as Abadan and Khorramshahr and the passage of important transit routes through a region which led to the strip development of cities along it (Figure 1).

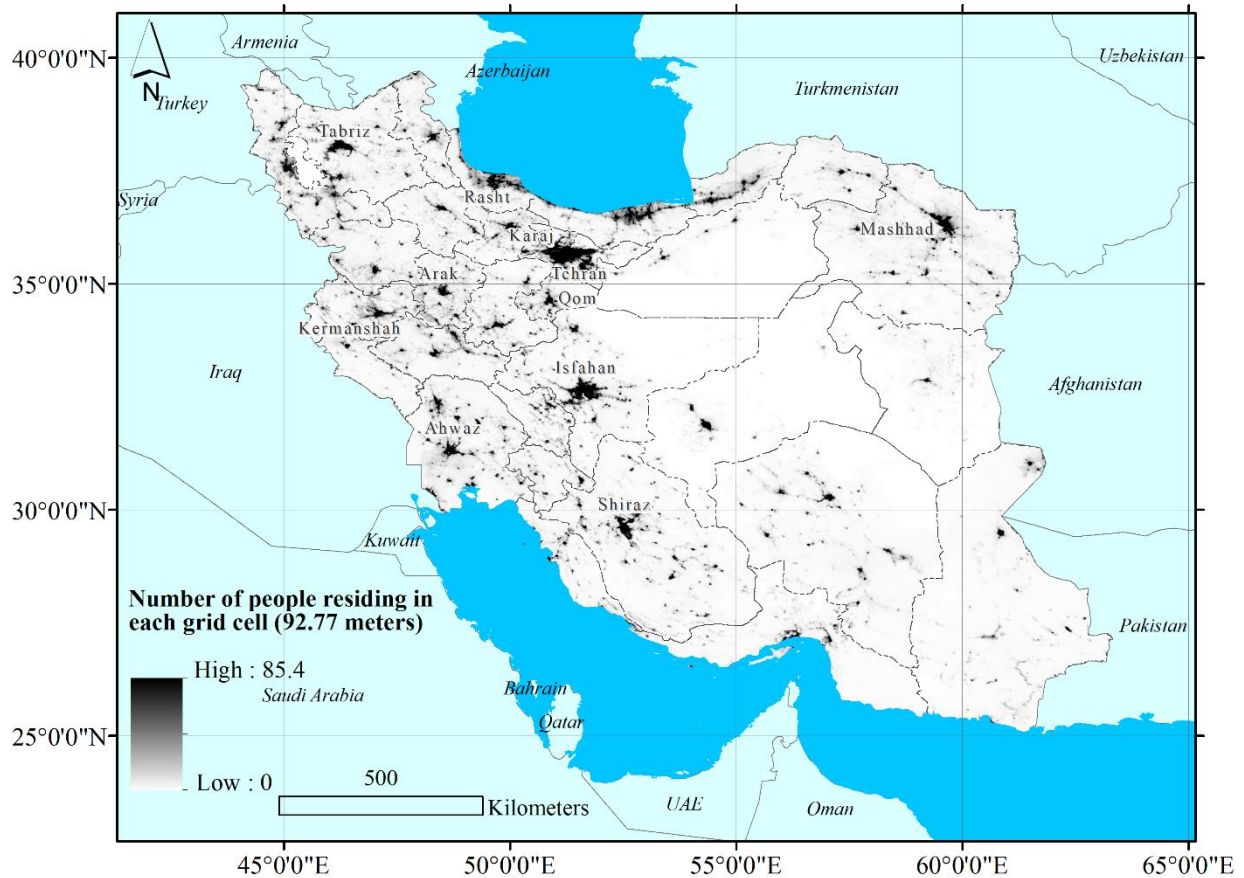


Figure 1. Geographical distribution of urban population in Iran

RESULTS AND DISCUSSION

1. Urbanization in contemporary Iran

At the beginning of the discussion on urbanization, it is worth mentioning that whenever we talk about urbanization, we mean the growth of the urban population and the increase in the number of cities, and in recent decades, four factors have influenced the growth of urbanization in Iran, which are:

- The natural growth of the urban population, which is the result of the difference between births and deaths, and does not include immigration.
- The transformation of the village into a city, which is mainly formed by a natural process and with the increase in the population of the villages, and sometimes this process can be accelerated by a decision of the government, and small and sparsely populated villages also become cities.
- The incorporation of villages into the legal boundaries of cities due to urban expansion and the size of cities, so that a large city like Tehran has swallowed 13 surrounding villages in recent decades.
- The migration of villagers to cities.

In this regard, Montgomery believes that "the migration of villagers to cities in developing countries is due to the wide gap in living standards between urban and rural areas, and these migrations are one of the

main causes of the growth of urbanization (Montgomery, 2009). Increased urbanization in such countries means that, because governments are unable to provide basic health care and infrastructure such as clean and purified water, mortality rates rise and the urban poor increase more than the rural poor (Harpham and Stephens, 1991: 62). For example, the infant mortality rate in urban areas of Bangladesh is between 95 and 152 per thousand, compared to 32 per thousand in rural areas (Martin, 2000). Nairobi, Kenya's largest metropolis, is home to one of the world's largest slums. Nairobi has around 40 slum neighborhoods, with low-income settlements housing almost 60% of the city's 5 million inhabitants (Faye,2023). The findings of Rajaei's study also showed that metropolitan and densely populated cities in Iran have the highest levels of social vulnerability, while smaller cities are less socially vulnerable, despite the common perception that they lack adequate facilities and economies. Intermediate cities were also placed between these two groups (Rajaei et al. 2019). The migration of villagers to cities in developing countries is due to the large gap in living standards between cities and villages, and these migrations are one of the main causes of urbanization (Montgomery, 2009).

As in other developing countries, urbanization in Iran has increased in recent decades, and the country's population center of gravity has moved uncontrollably from villages to cities. From the first general population and housing census in 1956 to the last one in 2016, Iran's urban population has undergone rapid changes. It can therefore be said that Iran was among the countries with rapid urbanization growth during this period. At the same time, the rural population has declined over time (Figure 2).

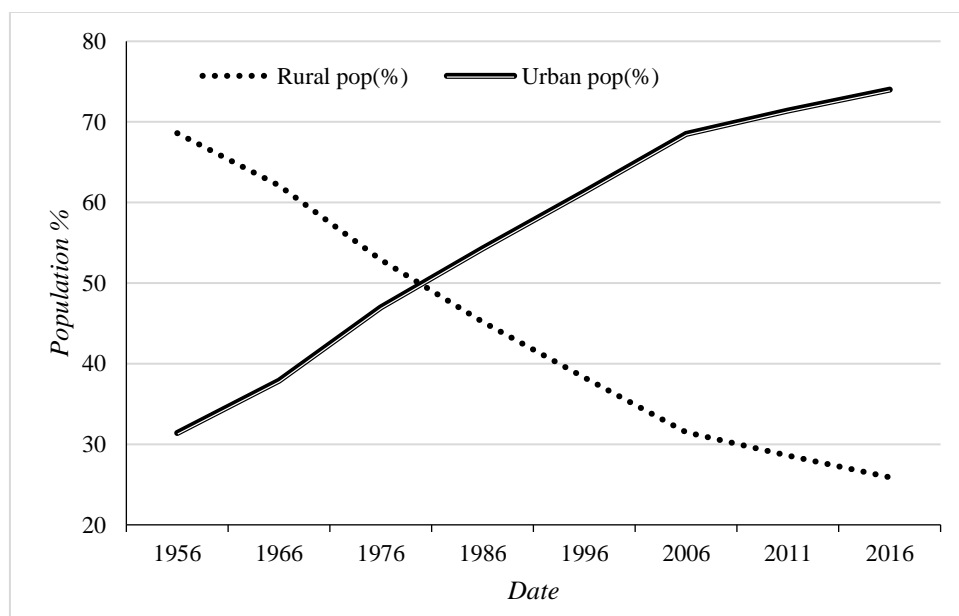


Figure 2. Changes in the ratio of urban to rural population in Iran, 1956-2016 (%)

Statistically, the urban population of the country in 1956 comprised only one third of the country's population (31.4 per cent) and the number of cities was 199 (SCI³, 1956). In 1966, the urban population of the country reached 9.7 million people with a rapid growth and covered 38.7 percent of the country's population with a growth of 5.2 percent. The number of cities reached 272 (SCI, 1966). The reasons for the growth of urbanization in this period can be found in the land reform in the early 1960s, the unprecedented migration of rural people to cities, the increased attractiveness of cities due to the special attention of the government with the injection of oil revenues and efforts to develop cities, the increase in the natural growth

³ . SCI, Statistical Centre of Iran

of the country's population due to the decrease in deaths caused by unfavorable health conditions, including the eradication of malaria and the improvement of drinking water in cities (Annamoradenjad, 2016).

In 1976, the growth rate of the country's urban population decreased slightly and reached 4.9%, which was attributed to the beginning of the country's family planning policy in 1968, which was most welcomed by urban dwellers. The urban population of the country reached 46.1% of the total population (SCI, 1976) and 101 cities were added to the number of cities and 373 cities were included in the census. In the 1986 census, the changes in the country accelerated and the occurrence of the Islamic Revolution in 1979 and the resulting cultural and economic changes, including the suspension of the family planning policy and the imposed war in Iraq, increased the growth of the country's total population to its highest level in history. At 3.91%, Iran was one of the few countries with very high population growth. As a result, the country's urban population experienced high growth, reaching the highest level (5.4 per cent). The number of cities increased to 496 (SCI; 1986) and the urban population exceeded 50% for the first time in Iran's history, reaching 54.3%. Interestingly, every time the government changed the family planning policy, the country's population growth changed too. After this period, the country's population growth rate slowly decreased, and the urban population grew by 3.2% and accounted for 61.3% of the total population, and the number of cities increased to 612 (SCI, 1996). In the 2006 census, the number of cities exceeded the limit of 1000 cities and reached 1012 (SCI, 2006). The main reason for this extraordinary increase in the number of cities was the implementation of the amendment to Article 4 of the 'Law on Definitions and Rules of Land Divisions' in 1992, according to which 'villages with any number of inhabitants, if the conditions are met, can become a city' (Hosseini, 2011). As a result, the number of cities in the country increased by 400 in just ten years, almost four times the increase in the previous period. The urban population increased to 68.4% of Iranian society. However, the growth rate of the urban population continued to decline gradually with a growth rate of 2.74% (Table 1).

Table 1: Urban population trends in Iran, 1956-2016

Year	Number of cities	Growth rate of urban population (%)	Urban population	N. of urban households	Urbanization ratio (%)
1956	199	-	5953563	1261372	31.4
1966	272	5/02	9795810	1962023	37.9
1976	373	4/93	15854680	3265524	47
1986	496	5/41	26844561	5528542	54.3
1996	612	2/95	36817789	7948925	61.3
2006	1012	2/74	48245057	12405584	68.5
2011	1139	2/14	53646661	15427848	71.4
2016	1245	1/97	59146847	18125488	74

In the 2011 census, urbanization returned to a more normal routine and the growth rate of urban population continued to gradually decrease and reached 2.16%, and the number of cities, according to the announcement of the Iranian Statistical Center, reached 1139 cities and the urban population was 71.4% of the total population Increased (SCI, 2011).

In the last general population and housing census of the country in 2016, according to the opinion of the Iranian Statistical Center, the city is defined as "any geographical location that has the approval of the governmental body and has a municipality" (SCI, 2016). The population criterion for defining a city has been removed. It should be explained that until 1983, a city was statistically defined as a place with a population of more than five thousand people and a municipality, and from that date, with the increase in the country's urban population, the population criterion became ten thousand people. In 2016, the number of cities in Iran increased to 1245 points and 106 cities were added to Iran's cities. The country's urban population also increased to more than 59 million people (SCI, 2016) and the proportion of urban population reached 74 percent. A figure that places Iran in the ranks of countries with high urban populations. The growth rate of the urban population decreased again in relation to the country's total population, reaching 1.97 percent.

The government's family planning policies have been very effective in reducing the fluctuations in the country's urban population. Among the influential factors in reducing population growth in the last two decades are the increase in the level of literacy and education of people, especially women, the expansion of urbanization, the industrialization of affairs, the increase in the cost of living, the change in the attitude and desire of families, especially young couples, to reduce the number of children, the increase in the level of health, the decrease in the level of mortality (especially infant mortality) and, as a result, the increase in life expectancy, are all achieved through the stages of demographic transition in Iran (Fathi, 2020). Iran has experienced three major reversals in population policy since its inception in the 1960s. In response to a rapid decline in fertility to very low levels, the most recent policy reversal has led to the development of legislation aimed at encouraging marriage and fertility, in particular the 'Youthful Population and Protection of the Family' law passed in 2021 (Asadisarvestani & Sobotka,2023).

In general, it can be said that the change in the number of cities in Iran has been gradually increasing over the past 60 years, and an average of 17 cities have been added to the total number of Iranian cities every year. However, there is one exceptional period that has disrupted this gradual increase, and that is the period between 1996 and 2006, when 400 cities were added to the existing cities of Iran within ten years due to government approval. As can be seen in Figure 3, there is a certain harmony between the increase in the number of cities and the urban population, and both have grown almost in parallel over the last 60 years (Figure 3). Although the birth rate in rural areas of Iran is higher than in urban areas, the growth rate of the country's urban population has been much higher than that of the rural population over the past six decades (3.86% versus 0.56%), indicating the role of rural migration in increasing the country's urban population.

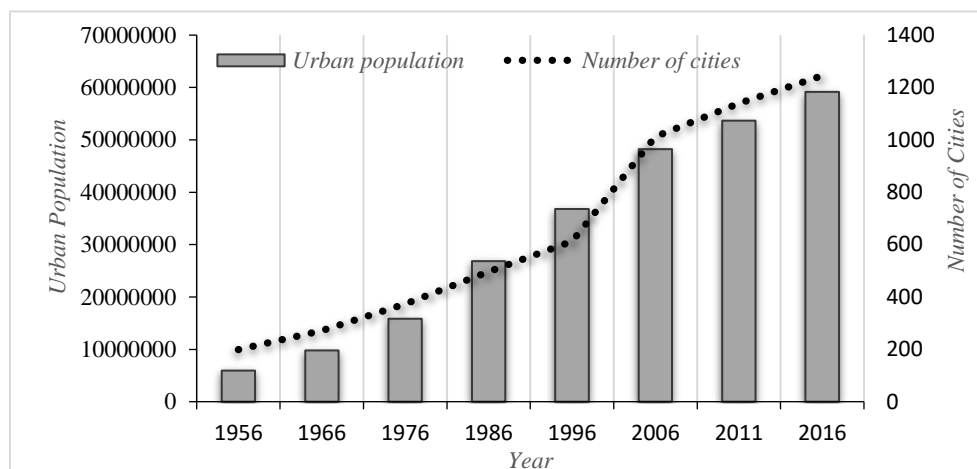


Figure 3. Changes in population and number of cities in Iran from 1956 to 2016

2. Spatial analysis of the Urbanization development process

Centralized planning governance in the country has led to an unbalanced distribution of facilities and investments at the regional level, which has resulted in the emergence and growth of a demographic, economic, educational and service center called Tehran as the country's capital. This, in turn, has led to the emergence of a phenomenon called "urban primate", which is also referred to as the "macrocephaly" phenomenon.

In Iran, the primate city phenomenon has existed for the past 60 years, but its intensity has decreased in recent years with the growth of second-tier cities such as Mashhad and Isfahan. The easiest way to detect the existence of a primate city in a region is when the population of the first city is more than twice the population of the second city. The two-city index was used here. According to the two-cities index, Iran has faced the primate city phenomenon in all census periods. Table 2 shows this situation. The result of estimating the primate city of Iran according to the above table has shown that (Table 2):

The primate city phenomenon has existed in Iran since 1956, but its intensity has decreased over time. The distance between the primate city and the second city has decreased from 3.5 times to 2.8 times, which is a sign of improvement in the primate city phenomenon in Iran and a move towards regional balance in population distribution (Table 2).

Table 2. The primate city phenomenon in Iran over 60 years

year	Population of the first city (Tehran)	The population of the second city		Two cities index
	population	population	City	
1956	1560934	289996	Tabriz	5.3
1966	2719730	424045	Isfahan	6.4
1976	4530223	667770	Mashhad	6.7
1986	6042584	1463508	Mashhad	4.1
1996	6758845	1887405	Mashhad	3.5
2006	7711230	2410800	Mashhad	3.2
2011	8154048	2691648	Mashhad	3
2016	8693706	3001184	Mashhad	2.89

The main reason for the weakening of the first urban phenomenon in the country is, on the one hand, the increase in the population growth rate of the second city and, on the other hand, the decrease in the population growth of Tehran due to the influx of some immigrants to the cities around Tehran. During these years, for example, Islamshahr went from a village of 2,000 people to a city of over 300,000. Another study by Rizvani et al. found that 92 villages around the metropolis of Tehran have experienced the reception of immigrants in the past decades (Rezvani et al., 2015). In 1966 and 1976, the highest first urban index was observed (6.4 and 6.7). In fact, these years were the peak years of government attention to Tehran. In 1976, Tehran had the largest share of the country's urban population (28.8%). In order to examine the spatial evolution of urbanization in Iran, the urban population of the provinces was used as a criterion. The share of the country's urban population at the provincial level has not followed a consistent pattern. According to the latest census (2016), the province of Qom has the highest percentage of urbanization at 95.1%. This is followed by Tehran Province with 93.8% and Alborz Province with 92.6%, with some provinces exceeding the national average of 74%. The reason for the high rate of urbanization in the above-mentioned provinces can be found in the following cases:

The presence of a densely populated metropolis that accounts for the majority of the province's population. In the five provinces of Qom, Tehran, Alborz, Isfahan and Razavi Khorasan, the high rate of urbanization is linked to this factor.

The presence of labor-intensive industries in the cities of these provinces, which has attracted the rural migrant population. The provinces of Isfahan, Markazi, Yazd and Qazvin are examples of this group.

The inconvenience of natural conditions, which results in the inability of agricultural bases and the desire to migrate to cities. Three provinces also have very low levels of urbanization, including Sistan and Baluchistan (48.4 per cent), Golestan (53.2 per cent) and Hormozgan (54.6 per cent) (Figure 4).

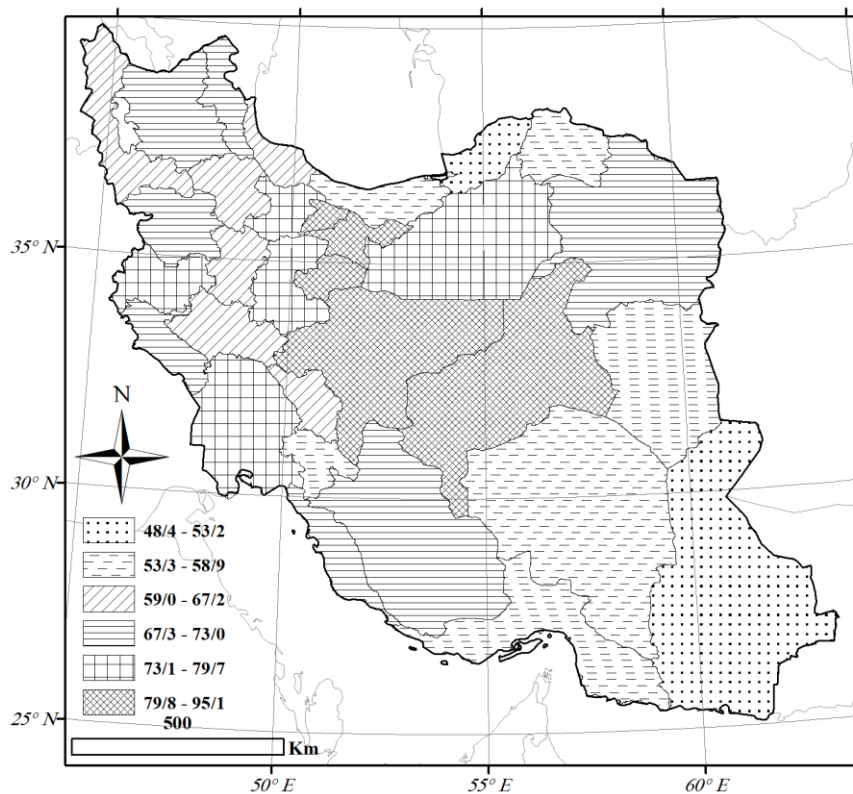


Figure 4. Urban population in Iranian provinces (%)

Based on the survey of the spatial distribution of the population in Iran's urban areas, the main urban clusters in the country can be identified in three patterns, as follows:

A) Metropolitan areas, including the clusters of Tehran and Karaj, Mashhad in the northeast of the country, Isfahan, Tabriz, Ahvaz, Shiraz.

b) Provincial centers with a population of less than one million: including Rasht (together with Bandar Anzali, etc.), Sari (together with Qaemshahr and Neka), Urmia, Sanandaj, Ardabil, Kermanshah, Kerman, Zahedan. It should be noted that not all provincial centers can be planned as urban clusters, e. g. Gorgan has no major city nearby.

c) Urban axes: These axes are linear and often formed in the coastal strip, such as the coastal cities of Guilan and Mazandaran provinces (with the exception of local clusters such as Rasht) and the southern coasts of the country, or along important transit roads, such as the road from Tehran to Mashhad, along which small and large cities have been formed from Behshahr to Galikesh (at the beginning of the Golestan Forest) (Seyfoddini et al., 2014).

One of the emerging phenomena in Iran's urban system is the emergence of a system of medium-sized cities around metropolises with relatively balanced distances, which have themselves become new poles of development, but at the same time have economic relations and capital flows with the central city of the metropolitan area. They have intensive technological and human resources. He noticed examples of these cases in large cities such as Qazvin, Arak, Qom, Semnan and Zanzan around the metropolises of Tehran, Isfahan and Mashhad, which are formed as independent systems (Nazarian, 2014).

Although the experience of building new cities in Iran dates back to the 1960s with the creation of cities such as Pooladshahr and Shahinshahr, however, Iran's greatest experience in building new cities occurred in the years after the Islamic Revolution, when about 17 active cities were created and the total population of these cities is about 730 thousand people (SCI, 2016). These cities mainly have a dormitory function and were built near the metropolises, and despite the goal of attracting the population overflow of the mother cities, they could not be populated as expected and take the burden off the shoulders of the metropolises. In general, it can be said that these cities have been able to attract some of the rural migrants or low-income households from the cities and to some extent reduce the rapid population growth in cities such as Tehran.

3. Population evolution in Iran's urban classes

In order to better study the temporal changes in the population of Iranian cities, first all the cities of the country were categorized in the form of 6 demographic classes, and then the demographic statistics of each class were extracted during the 60-year period. The results of this study show that

From 1956 to 1976, Tehran was the only city in Iran with more than one million inhabitants. From 1986 to 2016, the trend of increasing the number of metropolises in Iran intensified and reached 8 cities. The names of these cities, according to their population rank based on 2016 statistics, are listed in Table 4.

Table 4 The trend of population evolution of Iran's metropolises from 1956 to 2016

Rank	Metropolis	1956	1965	1975	1986	1996	2006	2011	2016
1	Tehran	1512082	2719730	4530223	6042584	6758845	7711230	8154048	8693706
2	Mashhad	-	-	-	1463508	1887405	2410800	2691648	3001184
3	Isfahan	-	-	-	-	1266073	1583609	1853293	1961260
4	Karaj	-	-	-	-	-	1386030	1614626	1592492
5	Shiraz	-	-	-	-	1053025	1227331	1460665	1565572
6	Tabriz	-	-	-	-	1191042	1378935	1494998	1555693
7	Qom	-	-	-	-	-	-	1074036	1201158
8	Ahvaz	-	-	-	-	-	-	1112021	1184788
Total		1512082	2719730	4530223	7506092	12156390	15697935	19455335	20755853
	The share of metropolis from urban population (%)	25.2	27.7	28.6	27.9	32.9	32.7	36.2	35

The demographic share of metropolises in the country's total urban population has risen from 25.2% to 35% in six decades. The city of Tehran alone housed more than a quarter of Iran's urban population for thirty years, and today 36 out of every 100 urban dwellers in the country live in metropolises.

In the class of cities with 500 to 1 million inhabitants, there were no cities in the first two periods, but their number and population doubled between 1976 and 2016. In 2011, there were six cities in this category, accounting for 7% of the country's urban population.

Iran's cities with a population between 250,000 and 500,000 experienced good growth, increasing from 2 to 14 cities (7 times) in terms of number, and their population also increased more than tenfold. The population share of this group increased from 9% to 10.2% in 55 years.

The class of cities with 100,000 to 250,000 inhabitants grew more than nine times in terms of number and population. The population share of this class is around 17% of the country's urban population and has not changed much.

Cities with between 50 and 100 thousand inhabitants increased by a factor of 9. The population share of this class was about 10.5% at the beginning and end of the period.

Iran's small cities with less than 50,000 inhabitants, which had the largest share in terms of number in 1956 and accounted for 90% of the country's cities, increased more than fivefold in terms of number and more than fourfold in terms of population during the six decades. However, due to the promotion of the position of other urban classes, the population share of this group of Iranian cities decreased from 38.5% in 1956 to 19% in 2016.

The demographic share of each of the urban classes in the total urban population of Iran in 2015 is respectively: the group of metropolises (35%), small cities (19%), cities with 100 to 250 thousand people (17%), 50 to 100 thousand people (10.5%), 250 to 500 thousand people (10.2%) and the lowest share is related to cities with 500 thousand to one million people with 7%.

4. Predicting future trends up to 2030

Certainly, the political, economic and social conditions of the coming years will determine the way of urbanization and its future routine in the country. Important and influential factors in this direction will be: the budget distribution system, the way key industries and activities are established at the provincial level, how the demands of farmers and villagers are responded to, the degree of sustainability of traditional

agricultural culture, the amount of attention and investment in the communication infrastructure of medium and small cities, food security, etc.

If we take the current trend of the country's growth in various dimensions, such as the growth of the urban population and the migration rate, as the criterion of our action and prediction, and if the situation continues in the same way until 2030, the situation will be as follows:

The country's population, including the current growth rate (1.24% in 2016), will reach 94977220 people from 79926270 people within 14 years.

By 2030, the country's urban population will grow from 59146847 to 77722268 people at the 2016 growth rate (1.97 per cent), and we will have only 17.7 million rural people.

The proportion of the country's population living in urban areas has also risen to 81.8 per cent. A rate often observed in industrialized countries.

Although the migration of villagers to the cities has been decreasing since 2001, unless preventive economic measures are taken to create jobs in the villages, the gradual decline of the rural population will continue according to the routine of the last three periods.

Reverse migration, which has been successful in some provinces such as Mazandaran (Annamoradnejad, 2021), will continue. This, together with the prosperity of work and life in the villages, will lead to a more balanced distribution of the population in the agricultural fields. However, in general, we cannot be very hopeful about the increase in the rural population as a result of this factor.

RECOMMENDATIONS

The following recommendations can be made to improve the urban system in the country:

- In order to prevent the reduction of consumption resources and damage to the ecological quality of the environment, it is necessary to maintain a stable and reliable number of rural population with a rural lifestyle.

At the national level, the traditional way of investing in development areas, which has been scattered and somewhat influenced by the perspective of the growth pole, should be replaced by a spatial-regional policy based on the needs of the regions and in a scientific way. In this way, the regions and provinces of the country will move towards regional and ecological balance and the emergence of new growth poles will be prevented.

In order to maintain the competitiveness of the country's metropolises with the cities of the West Asian region and not to fall behind the global communication cycle, they should be developed in a principled and systematic way. This includes addressing urban development issues, completing communication infrastructures and enabling them to respond to the growing needs of peripheral functional areas.

Reducing the concentration and density of population and activities in the densely populated areas of the country, especially Tehran and Isfahan, and curbing the growth trend of population and activities in these areas by transforming the structure of their industrial and service activities in order to increase the share of knowledge-based activities and lay the groundwork for redirecting investment to other provinces of the country.

Changing the role and performance of Tehran into a centre with international performance and the metropolises of Isfahan, Mashhad, Tabriz, Shiraz, Ahvaz and Kermanshah into centers with national performance to cover services in specific geographical or functional areas.

Creating organized networks of large and medium-sized cities in the country and equipping them so that they can take on some of the tasks at the regional levels under their influence and participate in addressing the lack of concentration in a national and regional division of labor.

At the local level, more attention needs to be paid to the promotion of regional metropolises (centers of disadvantaged provinces and city centers), focusing on the integrated development of central cities and their peripheral functional areas. This will help to strengthen the surrounding areas, balance the urban network and prevent rural depopulation.

Small and medium-sized cities should be strengthened in all respects, with the emphasis on city centers. The aim is to maintain and strengthen urban-rural relations, increase the income of the inhabitants, preserve local identity, cultural compatibility and social integration. This is possible by paying attention to three important elements of regional systems (small towns, villages and agriculture).

CONCLUSION

Urbanization in Iran, like in most developing countries, has experienced rapid growth in recent decades, such that the country's urban population has increased more than tenfold over the past six decades, and the rate of increase in the urban population compared to the rural population is more than three times higher. The number of cities in the country has also increased more than sixfold, and an average of 17 cities have been added to the number of cities every year, and the population forecast also indicates that the proportion of urban population in Iran will be in the ranks of developed countries. Among the effective factors in the accelerated process of urbanization in Iran, the following can be mentioned: the widespread migration of villagers to urban areas (for reasons such as the development of industries in big cities, land reforms, the occurrence of the Islamic Revolution, the Iraq-Iran war, the continuation of the centralization process, regional disparities at the country level, Afghan immigrants who tend to live in the city, and the implementation of some inappropriate laws, such as the abolition of the population criterion for the transformation of a village into a city).

The number of metropolises has increased eightfold over the period, and Tehran has always maintained its position as the country's largest city. More than a third of Iran's urban population lives in these cities. The continuation of the policy of centralization has led to the emergence of the first urban phenomenon in the country, although the intensity of this phenomenon has improved in recent decades with the increase in the population of the second city (Mashhad) and the decrease in the population growth rate of Tehran (due to the spill-over of the population into the surrounding areas). Another important issue is to match the acceleration of urbanization with the growth rate of the country's population as a whole.

Finally, it can be said that urbanization in Iran, like in most developing countries, has been a rapid process during the period studied, and in addition to the factors mentioned in the previous discussions, the increase in population throughout the country has also played a role. The family planning policy in Iran has been officially stopped on two different occasions (1979 and 2014) and by order of the government. Every time the family planning in Iran has been stopped, the country's population has increased. It has been very effective and the country's population growth rate (3.9 per cent) has been ranked alongside poor African countries such as Chad and Niger. The government's efforts to build new cities in order to attract the population spillover from the metropolitan areas have not been able to help with the spatial organization of the population at the level of Iranian cities, due to the low level of acceptance among the population.

The present study is important because it has been able to provide a 60-year overview of urban population changes in one of the Middle Eastern countries and to clearly identify the effective causes in this process. Forecasting the evolution of Iran's urban population in the coming years and drawing a verifiable perspective are also differences of this study from previous studies. As a result of this research, it can be said that in

Iran, a number of factors especially government policies have worked hand in hand to rapidly increase urbanization and decrease the population of villages, not only to the benefit of the country, but also with the spread of environmental crises in the metropolises and the depletion of natural resources, especially underground water, which has also harmed agriculture.

ABBREVIATIONS

¹ .UNDESA = United Nations : Department of Economic and Social Affairs

² .OECD =Organization for Economic Co-operation and Development

³ .SCI, Statistical Centre of Iran

REFERENCES

- Annamoradenjad, R. (2016): An analysis of spatial planning and the pattern of Urbanization development in Iran, *Journal of Urban Planning and Research*, 7(26), pp: 93-112. [in Persian].
- Asadisarvestani, K., & Sobotka, T. (2023) A pronatalist turn in population policies in Iran and its likely adverse impacts on reproductive rights, health and inequality: a critical narrative review, 31:1, 2257075, DOI: 10.1080/26410397.2023.2257075 [in Persian].
- Boadi, K., Kuitunen, M., Raheem, K., & Hanninen, K. (2005). Urbanization without development: Environmental and health impacts in African cities. *Environment, Development and Sustainability*, 7 (4), 465-500. <https://doi.org/10.1007/s10668-004-5410-3>
- Bodo, T. (2015). Problems of rapid Urbanization and coping strategies in Port Harcourt metropolis, Rivers State, Nigeria. Master's thesis, University of Port Harcourt, Choba, Rivers State.
- Bodo, T. (2019) Rapid Urbanization: Theories, causes, consequences and coping strategies, *Annals of Geographical Studies*, 2(3), PP 32-45. <https://sryahwapublications.com/annals-of-geographical-studies/pdf/v2-i3/5.pdf>
- Chen, X. (1991). "China's urban hierarchy, urban policy and spatial development in the 1980s". *Urban Studies*, 28(3): 341-367. <https://www.jstor.org/stable/43195773>
- Dorosh, P., & Thurlow, J. (2012). Agglomeration, growth and regional equity: An analysis of rural versus urban development in Uganda. *Journal of African Economics*, 21(1), 94-123. <https://doi.org/10.1093/jae/ejr033>.
- Fathi, E. (2015) Urbanization trend in Iran, *Amar Monthly*, 1(12), pp: 8-15. [in Persian].
- Fathi, E. (2020) A look at the past, present and future of Iran's population, Tehran: Research Institute of Statistics. [in Persian].
- Faye, M. (2023), Urban Slums and Inequality in Nairobi (Kenya): A Theoretical Perspective, *ARHUSS*, (2023), 6(1):60-82. <https://dergipark.org.tr/en/download/article-file/2591760>
- Gilbert, A. & Gugler, J. (1982). "Cities, Poverty and Development: Urbanization in the Third World". Oxford University Press, New York. <https://searchworks.stanford.edu/view/2756481>
- Gundogan, N. & Bicerli, M.K. (2009). Urbanization and labor market informality in developing countries. MPRA Paper No. 18247. <http://mpra.ub.uni-muenchen.de/18247/>
- Harpham, T & Stephens, C. (1991) "Urbanization and health in developing countries", *World Health Statistics Quarterly*, 44(2), pp: 62-69. <https://pubmed.ncbi.nlm.nih.gov/1926894/>
- Hosseini, S. A., (2011) Technical and Implementation Principles of Urban and Regional Laws in Iran, Third Edition, Rasht: Darya Danesh Publications. [in Persian].
- Javaheri, B., & Ebrahimi, S. (2022) Investigating the factors affecting Urbanization rates in Iranian provinces: spatial economic method, *Urban studies*, 11(42), pp:49-60. [in Persian].
- Javan, J., (2001): Population geography of Iran, second edition, Mashhad: Mashhad Academic Jihad Publications. [in Persian].
- Jauhiainen, J., & Eyvazlu, D. (2018) Urbanization, Refugees and Irregular Migrants in Iran, 2017, publication: University of Turku, Finland.

https://www.researchgate.net/publication/326065788_Urbanization_Refugees_and_Irregular_Migrants_in_Iran_2017

- Lockart, L. (1960): Persian cities. London: Luzac Publishing Ltd.
- Martin P.B. (2000): "An Urbanizing World", *Population Bulletin*, 55 (3).
https://www.researchgate.net/publication/285676310_An_urbanizing_world
- Montgomery, M. R. (2009): 'Urban Poverty and Health in Developing Countries', *Population Bulletin*, 64(2). <https://www.prb.org/resources/urban-poverty-and-health-in-developing-countries/>
- Mondal, P (2019). Urbanization in developed and developing countries around the world. www.yourarticlelibrary.com/society/Urbanization-indeveloped-and-developing-countries-aroundthe-world/4678
- Michaels, G., Rauch, F., & Redding, S. J. (2012). Urbanization and structural change. *The Quarterly Journal of Economics*, 127(2), 535-586. <https://doi.org/10.1093/qje/qjs003>.
- New Bold, B. (2010): Population Geography: Tools and Issues, Rowman & Littlefield Publishers, Inc.p.309.<http://ndl.ethernet.edu.et/bitstream/123456789/24717/1/3.pdf>.
- Navabakhsh, M., and Fathi, S. (2007) Growth and development of Urbanization in Iran "with an emphasis on socio-economic activities", *Sarzemen Quarterly*, 4(15), 1-12[in Persian].
- Nazarian, A. (2014) Dynamics of Iran's Urban System, Fifth Edition, Mobtakaran Publications. [in Persian].
- OECD (Organisation for Economic Co-operation and Development) & European Commission. (2020). The world's cities: A New Perspective on Urbanization. Paris, France: OECD.
<https://doi.org/10.1787/d0efcbdaen>.
- Rajaei, S., Ziyari, K., Zanganeh Shahraki, S., & Shahsavary M. S. (2019) Spatial analysis of city size changes with the level of social vulnerability (Case study: Cities over 10,000 population in Iran), *Journal of Spatial planning (Geography)*,9(2), pp:1-22. [in Persian].
- Rezvani, M. R., Motiei Langroudi,S ., Pourtahari, M., & Azizi, F. (2015): Immigrant acceptance and sustainable social development in rural areas (case study: immigrant acceptable villages of Tehran metropolitan region).*Regional Planning Quarterly*, 5(19), pp: 84 -71. [in Persian].
- Sakketa, T. G. (2022) Urbanization and rural development in developing countries A review of pathways and impacts, Bonn: German Development Institute, DOI: <https://doi.org/10.23661/dp5.2022>
- SCI, Statistical Centre of Iran (2007): General Results of Population and Housing Census 2006, Volume 1: The Whole Country, available on the website of Iran Statistics Center at: <http://amar.sci.org.ir>. [in Persian].
- SCI, Statistical Centre of Iran: General Results of Population and Housing Census of 2016, 2011, 2006, 1996, 1986, 1976, 1966, 1956. [in Persian].
- SCI, Statistical Centre of Iran (2015): "Iran in the Mirror of Statistics, 2014". [in Persian].
- SCI, Statistical Centre of Iran (2015): Statistical Yearbook of the Country. [in Persian].
- SCI, Statistical Centre of Iran (2014): Internal migrations of the country at the district level based on the results of the 2011 census, Tehran: Iran Statistical Center, Directorate of Public Relations and International Cooperation. [in Persian].
- Seyfoddini, F., Mansoorian, H., Pourahmad, A., & Darwishzadeh, R. (2014): Processes and patterns of Urbanization in Iran, *Urban and Regional Studies and Researches*, 21(4), pp: 61-84. [in Persian].
- Sturtevant, L. (2014). The New District of Columbia: What Population Growth and Demographic Change Mean for the City. *Journal of Urban Affairs*, 36(2), 276–299. doi:10.1111/juaf.12035
- Todaro, M. P., (1979), Urbanization in Developing Countries: Trends, Prospects, and Policies, Working Paper no. 50, The Population Council, New York.
- United Nations Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022: Summary of Findings. UN DESA/POP/2022/TR/N. 3.
https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2022_wpp_key-messages.pdf
- United Nations, Department of Economic and Social Affairs, Population Division (2019). World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420). New York: United Nations.
<https://www.un.org/en/desa/2018-revision-world-urbanization-prospects>

- United Nations, (2017). Principles and recommendations for population and housing censuses. https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles_and_Recommendations/Population-and-Housing-Censuses/Series_M67rev3-E.pdf
- UN-Habitat (2016). Urbanization and development: Emerging Futures. World City Report.
- United Nations Department of Economic and Social Affairs (UNDESA). 2014. World Economic Situation and Prospects. New York. United Nations. <https://unhabitat.org/world-cities-report-2016>
- United Nations Department of Economic and Social Affairs (UNDESA). 2019. World Population Prospects 2019: Highlights. New York: United Nations. https://population.un.org/wpp/Publications/Files/wpp2019_10KeyFindings.pdf
- World Bank. (2020). New World Bank country classifications by income level: 2020-2021. Washington, DC: Author. <https://blogs.worldbank.org/opendata/new-world-bank-country-classifications-income-level-2020-2021>
- Zanjani, H. A. (1990): The collection of topics and methods of urban planning, first volume: population, Tehran: Centre for Studies and Researches of Urban Planning and Architecture of Iran. [in Persian].