



**The role of urban development projects in the transfer of land by the  
government Case study: Aran and Bidgol**

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**Abstract**

Along with the development of urbanization in Iran and in order to regulate the physical structure of cities, as well as sustainable urban development that required the optimization of urban land use, comprehensive plans from 1345, the roadmap for urban development became. Aran and Bidgol are among the cities that have had organic growth until the Pahlavi period and especially before the land reforms of the 1340s, along with an intensive growth pattern. But in the last quarter of a century, the model of inorganic growth has had a very rapid physical growth and physical pattern. The purpose of this study is to examine the factors affecting the transfer of urban land as well as the role and actions of the government in the field of land transfer. This research seeks to answer the questions of what factors have been effective in the development of the city of Aran and Bidgol and also the physical reflections of the choice of land for transfer in the city of Aran and Bidgol. The present study is an applied research and its method is descriptive-analytical. They are located within the city limits and due to the lack of efficient land planning and management, they have been separated illegally and exposed to the stock market. The regional assessment index related to the expansion of the city shows that a large percentage of the current realized area of Aran and Bidgol is false and does not need any increase in area for future periods.

**Keywords:** horizontal city expansion, urban development plans, passive urban levels, land transfer, physical development.

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## 1-INTRODUCTION

Reviewing urban development plans and policies is an important step in the pathology of policies and actions. (Shams Pouya et al. 1395:61) Land use regulation has always been considered as one of the most important tools to control urban macro-growth that can directly affect land values and further determine the economic welfare associated with the city. (Han et al: 2020) With the increasing urban scale, a large number of rural areas are occupied by urban construction, which creates not only GDP growth but also a set of urban diseases that seriously affect urban production and the quality of life of residents. Puts such as crowded crowds, traffic jams and environmental pollution. (Ewing; 2008, Liu et al; 2018, Brueckner; 2000) Urban problems such as inadequate housing and unsanitary living spaces, the spread of corruption and the spread of various diseases that occurred after the industrial revolution in cities around the world, made city actors and decision makers prioritize the regulation of urban spaces. In the first stage, they formulated and implemented plans called maintaining security, health, and public welfare to solve the city's problems and manage the city's affairs. Since then, the increasing direct involvement of the government in the affairs of cities and their development and control has led to the preparation of plans that address all the social, economic and physical problems of cities. In the book, the developments of the city, Ian Bentley considers market forces, technology, etc. to be effective in shaping spaces. (Bentley, 1999:10) Thus, urban development projects also address sustainable issues such as ecological challenges and social issues related to citizens' housing, and land use monitoring tools are used to reduce urban development costs and achieve sustainable land use governance. (Bovet et al., 2018)

In Iran, since 1345, the preparation of comprehensive urban plans has been on the government's agenda. The necessity of preparing such plans goes back to the urban problems of that time. Along with the development of urbanization in Iran and the need to rethink the nature of cities and their socio-economic and physical needs, comprehensive plans in 1345 as a completely imported version from Western countries and inspired by the ideas of Patrick Gods, proposed for Iranian cities. Considering that, more than 200 comprehensive plans with a traditional model were presented and implemented in different cities of the country, but each of them has not been realized for some reason. (Mujtahedzadeh, 1377: 134)

But among the downstream plans that were implemented by the city executives under the comprehensive plans and simultaneously with them, are the urban land transfer plans. These plans have been implemented in most cities since the 1350s, and in some cases were in line with the policies of comprehensive plans, and sometimes disrupted what was thought by experts for the development of the city.

Regarding the necessity and goals of the present study, we must say that by changing the role and function of cities following socio-economic, political and physical changes, some of the city's functions have been moved to the surrounding areas and suburbs, and on the other hand due to changes in land use due to change. Its functions have caused irregularities in the space organization of elements and uses. These changes lead to the emergence of important issues such as disruption and imbalance in the user system, incompatibility between functions and physical space, problems related to materials and their wear and tear, social issues (displacement of social classes), economic issues and its transformation, Lack of equipment and facilities and the weakness of the communication network. Various factors have played a role in the development of the city. In addition to natural factors, social and economic factors, the political factor and its most important element, governments, also play an important role in the development of cities.

Government policies can be effective in the development of cities in various ways, including the development of administrative and political cities, the economic dependence of Third World cities, the productive relations that govern society and the creation of slums, suburbs, the exhaustion of the central city, the creation of the land bank And controlling the form of urban development and the optimal use of urban land is involved.( Azizi and Yarmohammadi,1393).

Today, the role of governments in creating geographical space, which was previously forgotten in geographical studies, is one of the determining factors, and therefore political decisions can make a city complex attractive or unattractive. Among these decisions is the policy of occupying suburban lands, preparing them and handing them over to individuals, organizations and groups of people, which affects the dynamism of cities. Looking at the appearance of large and medium-sized cities in Iran, including Aran and Bidgol, one can understand the importance of the role of the government and its administrative organizations. The administrative and service spaces of cities, which include administrative, medical, cultural, religious, educational and other centers, are a manifestation of the role of the government in shaping the image of Iranian cities, which, along with other built spaces, creates the current perspective for the country's cities.( Hosseinzadeh Dalir et Hooshlar, 1385). Now the question arises that what factors have been effective in the development of the city of Aran and Bidgol and also what are the physical reflections of the choice of lands for transfer in the city of Aran and Bidgol?

The city of Aran and Bidgol, due to its special location, has experienced a sharp expansion in the past few decades and has increased the size of the city several times and its population has reached more than 5 times. In this city, since 1357, the first series of lands were handed over to individuals and organizations in the form of land transfer plans, which at the same time coincided with the implementation of the comprehensive plan for 1359. After that, the process of land transfer was not only not interrupted, but was implemented more widely in different parts of the city, and the result of these plans was the addition of many new settlements to the map of the city for years to come. As in the eastern part of the city, the city center, west and northwest of the city, the towns of Pardisan, Golestan, Masoudabad (phases 1-5) and Saleh Dasht were born in the body of this city.

Given the position of governments and the political system in how to build a bright future for cities and to guide policies towards planned goals for cities, including Aran and Bidgol, it is necessary for researchers and urban planners, including in This study was considered necessary to examine more and more comprehensively the reflections of government interventions in urban development.

## 2- Theoretical Foundations

### 2-1- research literature

A comprehensive plan is a long-term plan (usually 10 years) in which the use of land and zoning related to residential, industrial, commercial, administrative and agricultural areas, urban equipment and general urban needs, etc. are determined and Rules and regulations related to all the above are prepared and regulated.( Department of Housing and Urban Development, 1379: 109) The master plan maps are usually prepared in 1: 10000 and 1:5000 scale and in that, the location and distribution of land uses and population densities, existing and proposed urban boundaries and areas and directions and future development of the city by signs Is shown.( shieh, 1374: 95) In a study conducted by Sharmand Consulting Engineers for the Ministry of

Interior on the reasons for the non-realization of urban development plans, a set of issues and problems affecting the non-implementation of the plans is given as follows:

1- Fundamental issues:

Lack of concentration of power and executive facilities in the municipality, little credit related to the urban development season, lack of upstream planning to create understanding at the national level,

2- Issues and problems of human resources:

Lack of specific staff, lack of staff knowledge about the content of projects, lack of technical ability to implement projects, passive approach of human resources to the project.

3-Issues and problems related to human aspects:

Lack of people's participation, influence of local authorities, people's resistance against the plan and ...

4-Technical issues and problems:

Delays in preparing detailed plans and their incompleteness, lack of sufficient details to implement non-regulated plans and segregations according to registration regulations (Sharmand, 1382:17-34)

At present, the growth rate of urbanization in developed countries is in a proper and planned orbit, but in third world countries, it is growing rapidly, which has led to the spiral growth of urban areas of these countries.( Davoodpour, 1384: 13) The development of cities in different countries has usually been in three forms: development connected with continuous, disconnected or discontinuous, and internal development or urban inputs in general, urban development has been done as a flow. Accelerated flows of development have led to accelerated development. Internal currents have created endogenous development and external currents have created exogenous development.( Fazli and Amini, 1399: 54)

The study of the urban system in the world shows that before the Industrial Revolution and the sharp increase in population in the nineteenth century and especially in the twentieth century, urban growth management due to population growth, influenced by concepts such as security and political issues The shape of the walls around the city or natural barriers around the city. .( Fazli and Amini, 1399: 54) Population growth in the last two centuries, industrial and technological advances have led to the immense expansion of existing cities and the formation of several new cities. In order to achieve urban sustainability, growth management uses a wide range of various political tools according to its goals, including coding growth within a specific area, protecting agricultural lands around cities, and improving the quality of life. Policies that restrict urban growth by restricting urban growth and rationally guiding development in the form of specific rules and regulations or in the form of delayed boundaries. According to the above, it can be seen that in scattered and intensive growth, physical growth is controlled and managed in a different way. Therefore, the tools and policies of urban growth management can be classified in a range that one end of this spectrum is considered as Intense growth control and the other end is considered as poor growth control and at the center of this spectrum places the growth direction.( Abedini, 1396: 17)

If we accept that urban planning is a collective action to control, liberate and expand human activities in space, then it is an institution that deals with society; A society in which competition for scarce resources (such as land) is high and therefore requires coordination between individual activities and decisions. From the perspective of the new institutionalist

approach, planning is a response to the high costs of market exchanges (both economic and political markets) and, since it deals with social (and public) action, requires formal organizations. Planning reduces transaction costs Development activities These organizations exist in both the public and private sectors and are formed to reduce transaction costs, so planning is not just a public sector activity but There is also in the market. From this perspective, urban spatial planning coordinates market and government activities, not a restrictive tool by one for the other. Exchange cost theory combines conventional dualism (market versus planning) to integrate them as an aspect of governance (involving both the public and private sectors). Exchange cost theory seeks to reduce the parallel and even contradictory activities of space actors by establishing a link between program, coordination, and execution, as it states that these activities increase costs for everyone as a whole.( Sharifzadegan and Hosseinabadi, 1399) Therefore, we can say that organizing and creating a suitable space with different functions for optimal access of citizens that are well used is the common goal of most urban development projects. In Iran, which has more than a few decades of experience in urban projects, it should be known to what extent the success of these projects has been and to what extent it has been able to reduce the problems of cities and improve the atmosphere of cities. Because assessing the feasibility of land uses is a good help to policy makers in the field of urban planning methods from traditional to modern, flexible with rapid changes and provides the necessary ground for urban management to modify, continue and stop the program. Despite more than fourteen years of experience in preparing urban development plans in Iran, these plans have not been successful in achieving their goals. Because none of them were born of technical knowledge and practical experience of the professional community and urban planning and urban planning of Iran. So that the initial model of all these designs is a perception of the models and experiences of other countries.( Mohammadi Doost et al, 1399: 94)

## 2-2- Research background

Regarding the role of comprehensive plans in the development of cities and its positive and negative points, it should be noted that it has been less discussed in scientific articles and discussions. Few sources have mentioned the issue of land transfers. However, the distinguishing feature of this research is that the angles that others have paid less attention to, that is, the issue of the role of comprehensive plans in guiding the development of cities has been paid more attention.

-The findings of Han et al. "2020" show that the Chinese land market is significantly distorted by excessive administrative interference by local governments, driven in the urban transition phase, regulatory tools can play an important role in regulating The price of urban land and hence the impact on urban growth.

- Mohammad Kazem Shams Pouya, Mozaffar Sarrafi, Jamileh Tavakoli Nia and Zohreh Fani in an article entitled "Analysis of Urban Development Plans and Policies with Emphasis on Good Land Governance Approach, Case Study: Tehran Metropolis, in" 1396 " study the development plans and policies of urban land and the impact of urban development plans on the development of Tehran and the fact that at different times a lot of land was transferred to housing cooperatives, some old villages gradually expanded and became residences. And the towns around Tehran came in, and thus Tehran expanded unevenly within the 25-year range and outside the 5-year range. As a result, the government's share of land for housing construction changed from less than 10 percent before the revolution to more than 45 percent in 1366.



- Nasser Eslami, Mohammad Hossein Sarai and Mohammad Reza Naqsan Mohammadi in an article entitled Analysis of the role of urban land transfer policies in urban physical development planning, a case study of Yazd region 3 in "1395" have dealt with land transfer policies and land Support and effects of land transfer policies on the physical development of Yazd. The results of this study show that if we consider the uncontrolled growth of the city as a kind of damage, one of the reasons can be the annexation of lands around the city to the area of urban services, either through the preparation of urban land preparation and transfer plans by the organization. And other numerous methods, including land trading and pimping.

-Tahmasebi in 1392 has dealt with the pathology of the transfer of national and state lands in the Islamic Republic of Iran.

-Qadir Firuznia, Abdolreza Rokanuddin Eftekhari, Leila Dayani, Majid Parishan and Mehran Asgharinia in an article entitled "Analysis of the Consequences of the Assignment of Rural Residential Lands in "1391" have dealt with the issue of land scarcity in different areas and the role of governments in organizing the exploitation of It has paid off. Since 1358, the government has started to acquire mortal and national lands and transfer part of it in the form of transfer of residential lands in order to provide housing to eligible villagers. The results of this study showed that the positive consequences of the transfer of rural residential lands in physical dimensions were more than the negative consequences. It has also had positive and negative consequences in the social field.

- Yaser Assadollah Tabar in "1391" in his master's thesis entitled "Study of spatial-physical changes in the city of Babel in the process of urban development projects with emphasis on worn-out textures", has studied the role of immigrants and tourism in the spatial development of the city .

- Abolfazl Meshkini, Jila Sajjadi et akram Tafakori in "1390" in an article have reviewed the policies of the government and the Housing Foundation in the field of land transfer in Kermanshah and come to the conclusion that these transfers in the form of individuals or cooperatives It has destroyed the life of the earth and housing and spatial development.

- Masoumeh Mohammadi in "1390" in her master's thesis entitled Review of the physical development of Qazvin city with emphasis on the performance of housing cooperatives, point to increase population growth and demand for housing and increase housing construction and the annexation of villages to the city and the role of cooperatives Housing companies after the 1340s and has considered these cases to be effective in accelerating the process of physical development of the city.

- Mohammad Taghi Rahnamaei, Mohsen Kalantari and Parvaneh Safari Lohesara in 1389 in an article have dealt with the role of government and its interventions in the physical development of Masal city and concluded that the government by using oil rents in the urban economy along with the problem Land and housing have increased the attractiveness of cities, population growth and physical development of Masal city.

- Awaz Alipour et al. In 1389 in the study of land transfer process in industrial towns of the country conclude that in the first four years of the study period (1383-1387) the transfer process has been upward and in the final year has been decreasing, so The transfer rate has decreased from 18.04% in 1383 to 12.16% in 1387. The decrease in assignments this year indicates a decrease in the growth of industrial activities in the country.

-Baqaei in "1386" in his master's thesis has analyzed the process of urban land supply and its role in the development of Sabzevar city. The results of his research show that the government's policies to improve the supply of urban land indicate their inefficiency, as the government has provided only 40% of the land needed by citizens and therefore 60% of citizens' demand has been met by the private sector.

- Karim Hosseinzadeh Dalir and Hassan Hoshyar in "1385" in an article entitled "Perspectives, factors and elements affecting the physical development of Iranian cities, in the field of political factors and the role of governments in the development of the city Have pointed out to some government interventions, including the establishment of the bank Land refers to the control of the form of urban development and the optimal use of urban land in the physical development of the city.

- Lughman Aziznejad in "1383" in his master's thesis entitled urban land transfer projects and its role in the spatial development of Saqez (from the Revolution to 1382) points out that during the 1360s onwards, The government has created heterogeneity in the physical, economic and social environment of the city by acquiring suburban and inner-city lands and transferring them individually and to employee and worker housing cooperatives.

- Ali Shamaei in "1382" in an article entitled "Unbalanced spatial-physical development of Yazd city and its effects on the construction of the city's ecology, points out that the uncontrolled transfer of land in different parts of Yazd, including in The south and southwest segments have caused the population to leave the city and especially from the old texture to the suburbs and the prevalence of stock exchanges in these parts.

- Mohammad Taghi Rahnamaei in "1373" for the first time in an article entitled Government and Urbanization, a critique of Hans Bobek's theory of capitalist exploitation has examined the impact of government on urbanization in Iran.

### 3- research method

This study tries to identify the factors and components affecting the physical construction of the city in relation to the supply of urban land in Aran and Bidgol. Due to the nature of the subject, its needs will be based on descriptive and analytical research methods. A collection of information that will be obtained from library and scientific centers, statistics, census results and official information of research departments and institutes such as the Management and Planning Organization, the Statistics Center of Iran and the National Land and Housing Organization and field visits. The cause and effect relationship will be analyzed through tables and diagrams as well as maps and the final analysis will be done through the drawings of the performed plans.

### 4-Introducing the scope of research

Aran and Bidgol cities are the northernmost cities of Isfahan province with an area of 6051 square kilometers, from the north to Namak desert, Namak lake and the provinces of Tehran, Semnan and Qom, from the south to Natanz and Borkhar and Meymeh cities from the east to Kavir plain and Ardestan city is limited to Kashan city from the west.(Aran and Bidgol city master plan, 1380: 26) The average altitude of this city is 912 meters above sea level (Salmani Arani, 1377, p. 9). The distance of this city to Kashan is 5 km, to Isfahan 210 km and to Tehran 230 km (Farrokh Yar, 1386, p. 185). The city consists of two parts, four cities and three villages. In general, this city is divided into three parts in terms of topographic features: mountainous, plain and plains of Lake Masileh.

The population of this city according to the last census of 1395, was 103517 people. In 1385, 84.6% were urban and 15.4% were rural, respectively. In this city there is a combination of old and new textures. The old texture has a history of several hundred years and belongs to the Seljuk and Safavid eras, which are systematically placed next to the new texture. In the city of Aran and Bidgol, the old texture is mostly in the central core areas of the city and the new texture is stretched in the outskirts of the city from east to west and north of the city. Another texture can be seen in the central and adjacent areas of old and new textures, which is a composite texture that according to the new needs of the population living in the texture, part of the traditional and old texture is destroyed and turned into new texture and Has found a function according to new city life needs.( Aran and Bidgol city master plan, 1380, Volume III: 280)

The physical development of Aran and Bidgol has been slow and slow until the 1360s. But since this decade, urban plans along with the decision-making of responsible institutions have led to the transfer of land in different areas of the city and the increasing development of the city.

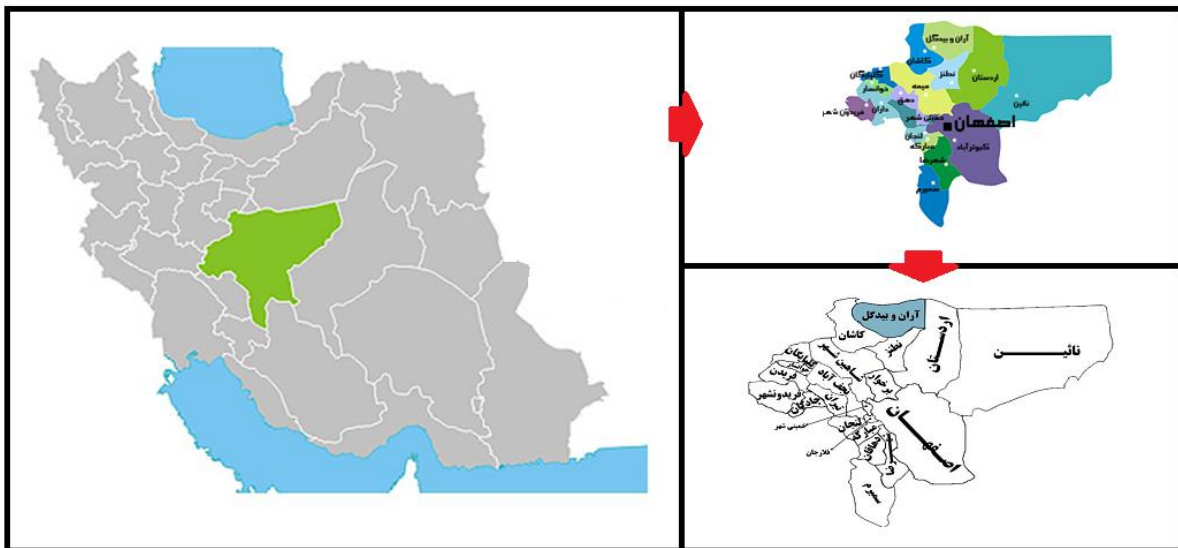


Figure 1: Location of Aran and Bidgol cities in Isfahan province and Iran

## 5. Discussion and findings

### 5-1- Urban plans approved by Aran and Bidgol cities; master plan of 1359

This comprehensive plan was approved on 1359/5/29. In this plan, the southern and western parts of the city were considered as the axes of future development. This stage should be the initial stage of formal intervention in the old fabric of the city and planned development in the city. The changes in the construction of the body, which at this time caused a change in the face of the physical texture of the city, were mainly the result of new urban planning measures, the construction of direct streets and the construction of government offices and organizations along the streets. New neighborhoods were formed under the names of Massoud Abad, Qasemieh, Qasem Abad, Resalat town. There was also a slum neighborhood called Mostafa Khomeini Town on the southern outskirts of the city, which is home to Afghan refugees. In general, in the comprehensive plan of 1359, the natural growth of the city's population, urbanism and the tendency of rural people to migrate to the city, the inadequacy of the city's facilities and the lack of per capita share of each type of land use, rapid growth of residents and economic growth It will cause the development of Aran and Bidgol cities until 1370.



Development goals: In the comprehensive plan of 1359, development goals, improving the quality of the body and physical environment, providing all urban services for all areas, reviving the old texture, maintaining neighborhood neighborhood units and creating hierarchical urban units, inspired by physical form And the old part of the city is mentioned in the design of new neighborhoods.

Development options:

- A) Linear development: The physical form and current shape of the city in no way allows linear development for the city. Because in addition to not adapting the new parts to the old texture, the streets across this form of development in the future will be the bed of soil and sand.
- B) Cluster development: The possibility of cluster development of the city at a distance from the existing fabric will cause the abandonment of the old part and the influx of city residents to new parts. In addition, the local municipality is not responsible for financing the construction of the infrastructure for the future development of the city.
- C) Radial development: Continuation and widening of the passages of the old texture of the city and radial development, puts the city in a logical relationship with the old texture and the disadvantages mentioned in the two previous types of development are not considered here. But the existence of satellite hills east and north of Bidgol, the existence of Mobarakeh farm in the north of Bidgol, the existence of Salehabad farm in the northeast of Aran prevent the existence of such a development.

The final solution of development: the axes of future development of the city, the southern and western parts are considered. Considering the obstacles of each of the types of development mentioned above, for the next 16 years, according to the physical form of different parts of the city, as well as the emphasis on renovating old parts and considering the area of surrounding farms and agricultural lands, parts In the southeast and south of Bidgol, parts in the south, southeast and east of Aran are also considered for the future development of the city. The legal area of the city is 242.4 hectares, of which about 28.3 hectares are barren lands.



Map 1- Axes of the proposed development of the comprehensive plan for 1380

## 5-2- Master Plan for 1380

As stated in the master plan of Aran and Bidgol in 2001, natural and environmental constraints necessarily lead the development of the city to the following three axes:

- A) Development in Kashan axis: Due to the existence of open lands and being away from the dangers of quicksands, as well as the lack of agricultural lands on the one hand and the existence of urban facilities and existing passages and networks, part of the future development of the city in this axis is considered.
- B) Noosh-abad axis: the closer we get to the east from the northeast, Reduces the movement of quicksands and allows for physical development.
- C) Bidgol to Aran axis: This development is around Bidgol and lands located in the area of Bidgol, which are located in empty areas of the tissue, whether agriculture or etc., and part of the future population will settle in these areas. (Map 1) (Master Plan, 1380: 42).

## 5-3- Criteria for physical planning of the city in the Master Plan of 1391

- A) Limiting the expansion of the city from the periphery: The existence of 390 hectares of barren lands in the city and their lack of development in the process of urban growth over the past decade, has led to the formation of incoherent, scattered, scattered texture and physical expansion of the city. Due to the sufficiency of these lands for the development of residential and service levels up to the horizon of the forthcoming plan (1405), increasing the area in the form of peripheral development is not recommended at all.
- B) Compactness and development from within: The total population density of Aran and Bidgol in 1385 was equal to 34 people per hectare, which in 1390 increased to 46.5 people per hectare, also the average number of floors with residential use was only 1.30. As a result, population density and consequently building density in the city is very low, so it makes more sense to take advantage of development capacities from within, the main of which is to regenerate and renovate the old texture and increase population densities.
- C) Development, regeneration and renovation of old and historical centers and textures: These lands, which form the core of the city, on the one hand, due to being located in the geometric center of the city, have high opportunities for access to work and activity centers. On the other hand, they are identifiable due to the reference to the background and origin of the formation of the city. The increase in the area of the city and the annexation of the surrounding lands to its area over the past few decades, has led to the evacuation of the old part of the city from habitation and the lack of renovation of these parts.

According to the comprehensive plan of 1391, it is concluded from this discussion that the existence of large areas of barren and undeveloped lands in the city of Aran and Bidgol, the increase of the area and the immediate annexation of lands to it without justification. Also, the existing land uses not only meet the needs of citizens in the current situation, but also meet the projected population in accordance with the plan. Therefore, 1) development from within and 2) intensive development are considered as two acceptable options in the proposed development model.

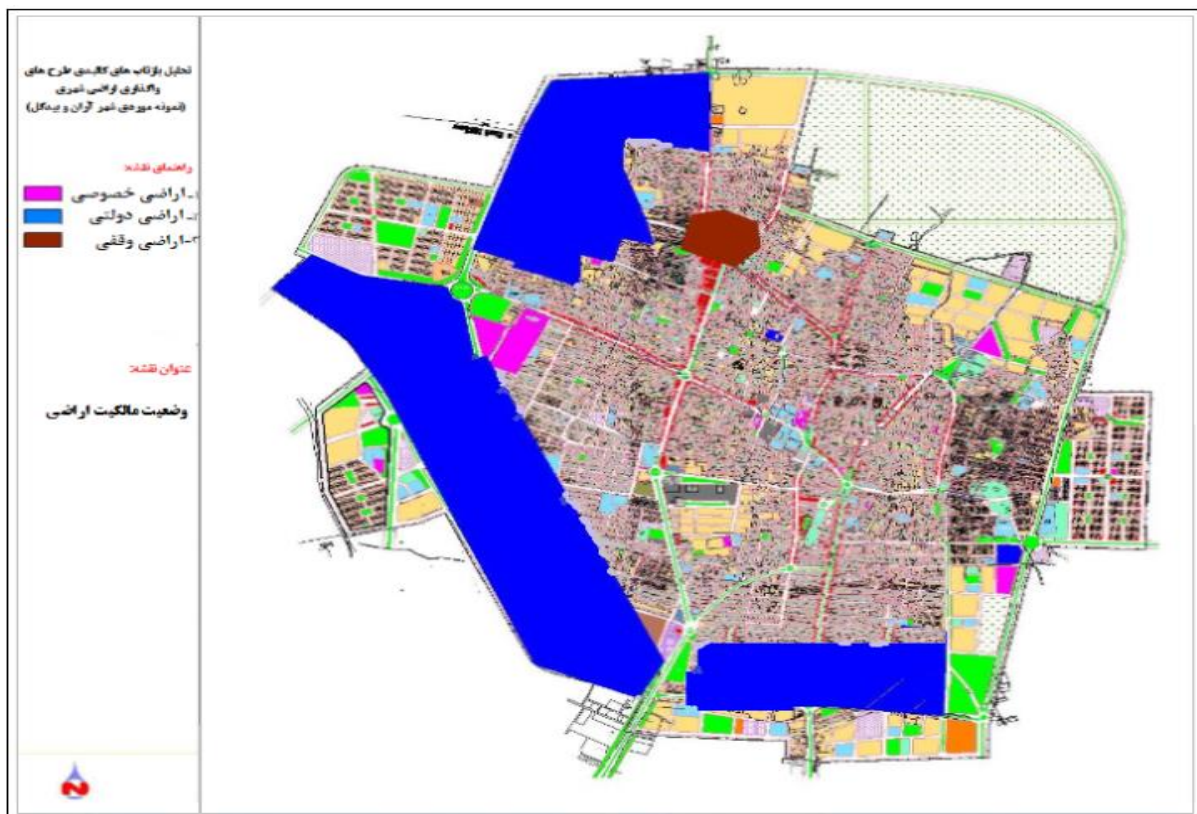
## 5-4- The current situation in 1393 based on the latest documents of 1390

At the end of 1390 and as mentioned in the comprehensive plan of 1391, the total legal area of Aran and Bidgol has reached 1279 hectares. The average area of land allocated to each residential plot has decreased from 366 square meters in 1354 to 227 square meters in 1390.

The number of residential units has increased from 2374 in 1359 to 13713 residential units in 1390 (Aran and Bidgol City Council and Municipality, 1383).

|                                       |                       |   |               |
|---------------------------------------|-----------------------|---|---------------|
| City area<br>(1390)                   | 242.4 hectares (1359) | → | 1279 hectares |
| Number of residential units<br>(1390) | 2374 units (1359)     | → | 13713 units   |

Assignment of lands: After the victory of the Islamic Revolution, the government and the revolutionary institutions devoted all their time and grief to meeting the needs and difficulties of the people's lives. On the issue of land and housing, due to the large and young population of the 50s and 60s and the large number of housing applicants, many measures were taken after the revolution. One of these measures was the implementation of urban land transfer plans. Accordingly, and with regard to the enactment of laws throughout the country, which naturally included the lands of Aran and Bidgol and its suburbs, in addition to the national and natural resources at the disposal of the government, a considerable amount of land within the tissue Urban and outside it, it was taken over by the government to be provided to individuals, legal entities, and public, governmental, and sometimes social services entities upon request and in accordance with the law. Relevant agencies are obliged to transfer these lands according to Articles 65 and 66 of the Executive Regulations of the Urban Land Law - to people who do not have a residential unit and urban land, are at least 25 years old, married, have a residence history in the city, etc. (Map 3).



Map 2 - Major appropriations of national lands by the government

## 6- The results of the analysis

So far, we have examined what was mentioned in the approved plans of Aran and Bidgol. Now we will compare and match the items that have been considered in the plans with the decisions made by city managers in order to develop the city. Some of these cases are in line with the guidelines of comprehensive plans and some are contrary to these guidelines.

### 6-1- Expanding the city limits - Suggestions for the Master plan and the current situation

In the comprehensive plan of 1359, the renovation of old structures and less development of the urban area is emphasized, and in the comprehensive plan of 1391, intensive development and development from within is emphasized. On the one hand, in the comprehensive plan of 1359, the axes of future development of the city of the southern and western parts have been considered and also considering the obstacles of each of the types of development mentioned in this plan, for the next 16 years of the plan, according to the physical form. Different parts of the city and also emphasis on renovation of old parts and considering the area of surrounding farms and agricultural lands of the region, parts in the southeast and south of Bidgol, as well as parts in the south and southeast and east of Aran for future development of the city in opinions have been asked. The city limits in different years up to the project horizon are also estimated as follows:

- A) City limits until 1360: Until 1360, the final city limits will remain with an area of 242.4 hectares.
- B) The city limits until 1365: From 1360 to 1365, the city limits will reach an area of 301 hectares.
- C) City area until 1370: From 1365 to 1370, the city area will reach 467.5 hectares.

On the other hand, the studies of the comprehensive plan of 2012, which began in 2006, consider the increase of the area and the immediate annexation of lands to it without justification. Thus, among the listed models, the only model of development from within is logic (Molaei Arani, 1393: 135).

Table (1) Area, percentage and per capita land use of the city in the years 1354, 1375, 1383 and 1390.

| ۱۳۹۰       |            |         | ۱۳۸۳       |            |        | ۱۳۷۵       |            |       | ۱۳۵۳       |            |       | Land use   |
|------------|------------|---------|------------|------------|--------|------------|------------|-------|------------|------------|-------|--|
| Per capita | Percentage | Area    | Per capita | Percentage | Area   | Per capita | Percentage | Area  | Per capita | Percentage | Area  |  |
| ۶۳.۲       | ۲۹.۳۹      | ۳۸۱۲۳۸۱ | ۷۶.۳۹      | ۳۲.۰۳      | ۳۹۷۱۰۶ | ۶۸.۰۶      | ۴۱.۷۹      | ۳۲۷۷۹ | ۴۵.۷۸      | ۵۵.۸۳      | ۱۳۵۳۴ | Residential and commercial-residential Commercial For-profit and non-profit services Industrial Educational Higher Education |
| ۳          |            |         |            |            | ۹      |            |            | ۹۷    |            |            | ۱۰    |  |
| ۲.۵۸       | ۱.۲۰       | ۱۵۵۶۵   | ۰.۸۰       | ۰.۳۳       | ۴۱۴۹۷  | ۰.۸۲       | ۰.۵۰       | ۳۹۳۸۳ | ۱.۱۶       | ۱.۴۲       | ۳۴۴۰۶ |  |
|            |            | ۶       |            |            |        |            |            |       |            |            |       |  |
| ۰.۷۲       | ۰.۳۳       | ۴۳۱۲۹   | ۹.۲۶       | ۳.۸۸       | ۴۸۱۱۷۶ | ۱.۷۱       | ۱.۰۵       | ۸۲۱۵۰ | ۳.۲۶       | ۳.۹۸       | ۹۶۴۸۶ |  |
| ۳.۲۶       | ۱.۵۲       | ۱۹۶۷۲   | ۴.۰۸       | ۱.۷۱       | ۲۱۱۸۲۷ | ۴.۲۷       | ۲.۶۲       | ۲۰۵۶۲ | ۱.۳۴       | ۱.۶۳       | ۳۹۴۹۰ |  |
|            |            | ۷       |            |            |        |            |            | ۹     |            |            |       |  |
| ۳.۷۷       | ۱.۷۵       | ۲۲۷۱۰   | ۰.۳۹       | ۰.۱۶       | ۲۰۳۲۰  | ۰.۰۰       | ۰.۰۰       | ۰     | ۰.۰۰       | ۰.۰۰       | ۰     |  |
|            |            | ۴       |            |            |        |            |            |       |            |            |       |  |
| ۳.۲۹       | ۱.۵۳       | ۱۹۸۶۴   | ۱.۱۶       | ۰.۴۹       | ۶۰۳۸۰  | ۰.۸۴       | ۰.۵۲       | ۴۰۴۶۲ | ۱.۶۱       | ۱.۹۶       | ۴۷۵   | Administrative-disciplinary  |
|            |            | ۰       |            |            |        |            | ۲          |       |            |            | ۶۸    |  |





|       |        |       |       |        |        |       |        |       |       |        |       |                        |
|-------|--------|-------|-------|--------|--------|-------|--------|-------|-------|--------|-------|------------------------|
| ۲.۷۶  | ۱.۲۸   | ۱۶۶۴۱ | ۱.۸۳  | ۰.۷۷   | ۹۴۹۲۱  | ۲.۱۶  | ۱.۳۳   | ۱۰۴۲۲ | ۰.۷۱  | ۰.۸۷   | ۲۱۱۲۲ | Therapeutic-health     |
|       |        | ۳     |       |        |        |       |        | ۵     |       |        |       |                        |
| ۲.۸۸  | ۱.۳۴   | ۱۷۳۶۹ | ۳.۲۰  | ۱.۳۴   | ۱۶۶۱۳۰ | ۲.۸۰  | ۱.۷۲   | ۱۳۴۷۸ | ۲.۶۰  | ۳.۱۷   | ۷۶۹۳۵ | Religious              |
|       |        | ۸     |       |        |        |       |        | ۳     |       |        |       |                        |
| ۰.۸۲  | ۰.۳۸   | ۴۹۳۷۹ | ۰.۵۷  | ۰.۲۴   | ۲۹۴۵۵  | ۰.۱۳  | ۰.۰۸   | ۶۰۷۶  | ۰.۱۷  | ۰.۲۱   | ۵۱۵۵  | Sports                 |
| ۱.۵۷  | ۰.۷۳   | ۹۴۵۹۵ | ۱.۴۸  | ۰.۶۲   | ۷۶۸۸۹  | ۰.۸۸  | ۰.۵۴   | ۴۲۴۹۹ | ۰.۰۰  | ۰.۰۰   | .     | Park and green space   |
| ۰.۳۲  | ۰.۱۵   | ۱۹۵۹۲ | ۰.۰۰  | ۰.۰۰   | *      | ۰.۰۸  | ۰.۰۵   | ۳۶۱۸  | ۰.۰۱  | ۰.۰۱   | ۲۴۰   | Cultural               |
| ۴۹.۸  | ۲۳.۱۹  | ۳۰۰۷۵ | ۲۶.۲۷ | ۱۱.۰۱  | ۱۳۶۵۵۱ | ۲۳.۹۶ | ۱۴.۷۱  | ۱۱۵۳۹ | ۱۲.۳۵ | ۱۵.۰۶  | ۳۶۵۱۰ | Passages and parking   |
| ۹     |        | ۸۶    |       |        | ۱      |       |        | ۳۲    |       |        | ۵     |                        |
| ۱.۲۶  | ۰.۵۹   | ۷۵۹۱۵ | ۰.۸۷  | ۰.۳۶   | ۴۵۲۱۳  | ۰.۸۱  | ۰.۴۹   | ۳۸۷۹۶ | ۳.۴۲  | ۴.۱۷   | ۱۰۰۹۶ | Slaughterhouse use     |
|       |        |       |       |        |        |       |        |       |       |        | .     |                        |
| ۶۴.۷  | ۳۰.۱۰  | ۳۹۰۵۱ | ۵۴.۶۶ | ۲۲.۹۲  | ۲۸۴۱۳۳ | ۳۳.۲۳ | ۲۰.۴۰  | ۱۶۰۰۲ | ۹.۵۸  | ۱۱.۶۸  | ۲۸۳۱۲ | Barren and destructive |
| ۷     |        | ۳۵    |       |        | ۷      |       |        | ۵۷    |       |        | ۳     |                        |
| ۱۳.۳  | ۶.۱۸   | ۸۰۱۹۳ | ۵۷.۵۹ | ۲۴.۱۴  | ۲۹۹۳۷۰ | ۲۳.۱۵ | ۱۴.۲۱  | ۱۱۱۴۹ | ۰.۰۰  | ۰.۰۰   | .     | Agriculture            |
| .     |        | ۸     |       |        | ۵      |       |        | ۴۵    |       |        | .     |                        |
| ۰.۷۳  | ۰.۳۴   | ۴۴۰۵۰ | ۰.۰۰  | ۰.۰۰   | .      | ۰.۰۰  | ۰.۰۰   | .     | ۰.۰۰  | ۰.۰۰   | .     | Historical             |
| ۲۱۵.  | ۱۰۰.۰۰ | ۱۲۹۷۱ | ۲۳۸.۵ |        | ۱۲۳۹۹۴ | ۱۶۲.۸ | ۱۰۰.۰۰ | ۷۸۴۴۷ | ۸۱.۹۹ | ۱۰۰.۰۰ | ۲۴۲۴۰ | Total                  |
| ۱۶    | .      | ۹۳۷   | ۳     | ۱۰۰.۰۰ | ۳۰     | ۹     | .      | ۵۲    |       |        | ..    |                        |
| ۶۰۲۹۰ |        |       | ۵۱۹۸۲ |        |        | ۴۸۱۶۰ |        |       | ۲۹۵۶۳ |        |       | population             |

\* The area dedicated to cultural use was announced in 1382 in integration with religious use. (Source: Part Consulting Engineers, 1391)

Given the above issues raised by experts and the future dynamism and expediency of the city to not expand the city from the periphery, naturally in later periods we should have seen solutions and measures in this direction, while in the same years And in the continuation of the transfers after the revolution, up to 120 hectares of land in the west and east of the city have been transferred. As the area of the city has increased from 242 hectares to 1279 hectares and in (Map 4) clearly, the blue color of the western and southern margins of the city indicates the lands assigned and the expansion of the city. In this map, it is clear that in the periods 1343-1353 and 1354-1365, which are marked with orange and earthy colors, the expansion of the city in a controlled framework and has been accompanied by a slow growth.





Map 3 - Major appropriations of national lands by the government

5-5- Changing the directions of city development - the axes of the proposed development of the comprehensive plan and the current situation

- The axes of development in the comprehensive plan of 1359 have been west and south of the city and the observance of farm privacy has been emphasized.

According to (Map 1) and in accordance with the provisions of the 1380 master plan, the axes of development in this plan are Kashan axis, Noosh-abad axis and Bidgol axis to Aran (Master Plan, 1380: 42).

- In the 1391 plan (beginning of the 1385 study) no development is allowed and only the development model from within is in line with the requirements of the city and the level of barren lands in the current city limits not only fully meet the needs of citizens on the plan horizon but also levels It is significantly more than the development requirements of the city.

The data from (Figure 5) describe this in a different way. In this map, the development directions of the city after the revolution did not follow the approvals of the master plan 1359 nor the views of the experts of the master plan 1380 and 1391. The development and progress of the city has been done in 5 main directions, and despite the recent recommendations of experts that it is not necessary to expand outside the center, the city is still progressing in the northern and northwestern parts.

Map 4- Axes of development of Aran and Bidgol cities after the revolution, contrary to the proposed aspects of the approved plans

Arbitrary segregation of land by persons who own land plots within the scope of land transfer schemes. We see this in most of the plots where the government has separated a large area of land and made it available to the people. The area of land allotted to the people was in some places more than the area needed by the people, and as a result, this later encouraged the owners to build as much land as they needed and either sell or keep the rest to Increase the price of land, make them more profitable. You can see examples of this happening in phase 3 in (Figure 2).

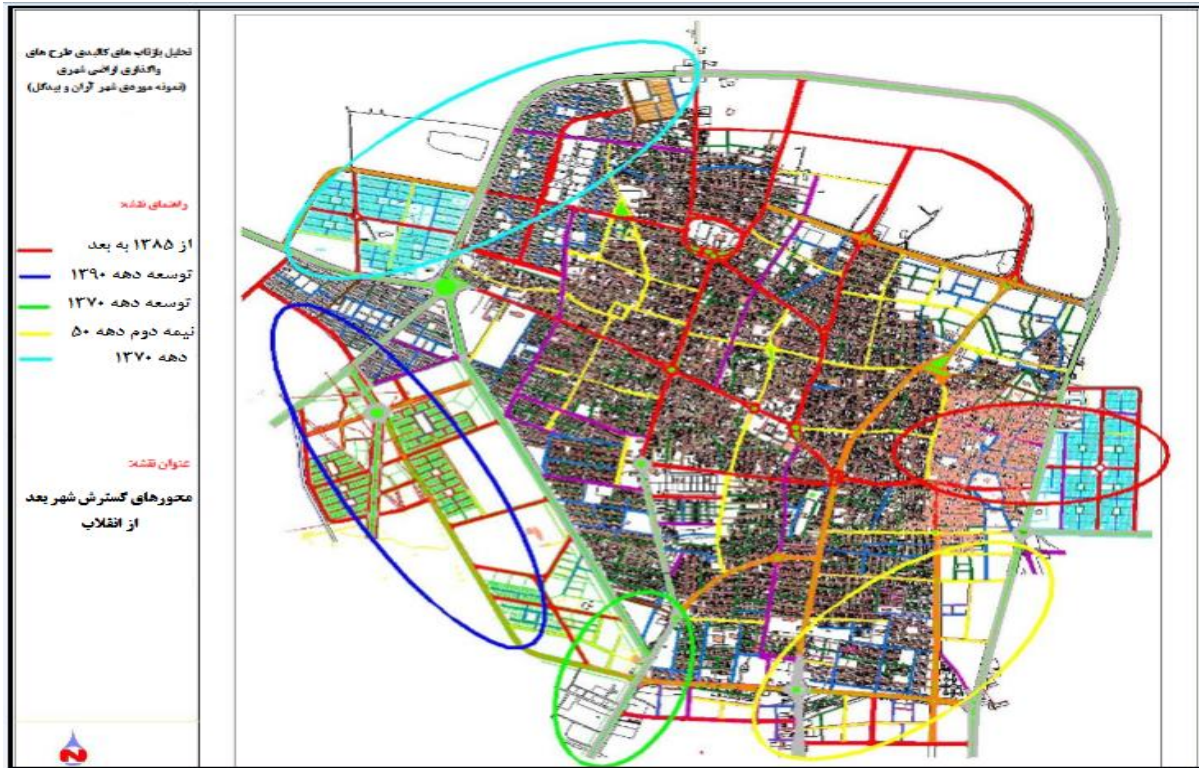


Figure 2 - Arbitrary separation of two large plots of land into two smaller plots in phase 3

The fact that people can separate and keep or sell their land with the permission or without the permission of the relevant authorities into two or more plots, has adverse effects on the body and shape of the city and the order in urban plans. And it disintegrates the texture, body and shape of the city and leads the pattern of the city towards a dense, fine-grained, complex and tangled texture. All urban plans, both short-term and long-term, have goals and objectives that

try to improve the physical and perhaps social and environmental status and urban aesthetics (Molaei Arani, 1393: 160).

Master Plan of Golar (Horizon 1370): From a comparative comparison of levels, percentages and per capita land use proposed by residential consulting engineers for Horizon 1370 and what has happened in practice, it can be deduced that the commercial-service, educational, sports, Green space and parks, urban facilities and equipment, network of roads and workshop industries have been achieved less than what was estimated in the 1370 plan. While some other uses such as residential and health use have been achieved more than estimates.

Comprehensive plan of Aranobidgol city (Horizon 1390): A comparative comparison of levels, percentages and per capita land use proposed by the urban planning management for Horizon 1390 shows that residential, commercial, educational, sports, urban facilities and equipment and parks have been less estimated. The estimated area for higher education uses and the road network and parking lot is less than the realized levels. Also, the levels of health-medical, cultural-religious, cultural-social, administrative-law enforcement and workshop industries are apparently in relative agreement with the estimates (Architect and Urban Planning Part Consulting Engineers, 1391)

Detailed plan of Aranobidgol city (Horizon 1392): A comparative comparison of land levels, percentage and per capita land use proposed by Sepahan Consulting Engineers. Ara plan for Horizon 1392 indicates that the estimated levels of residential, commercial, educational, sports, park and green space uses are more than The realized levels are while the levels created for the applications of higher education, medical-health, administrative-disciplinary and road network are more than the plan (Architect and Urban Planning Part Consulting Engineers, 1391).

Considering that the non-realization of residential use was also applied in the previous plan, the existence of large areas of barren and undeveloped lands in the city during the last twenty years can be considered due to unprincipled planning of the housing sector and more importantly incorrect population forecasts. Finally, it has led to the estimation of large areas of residential land required on the project horizon. In addition, population over-estimation has led to the prediction of large areas of land required for the provision of services, which, in addition to residential land, necessitates the annexation of a large area of land around the city to the area, While the estimated population has not been met, on the one hand it has not provided the necessary demand for housing development and on the other hand it has not met the minimum population thresholds required to form the services needed in the field of living.

## 7-Conclusion

During the last four decades, a comprehensive and detailed plan, two comprehensive plans and a detailed plan have been prepared for the city of Aranubidgol. About four decades have passed since the preparation of the first urban development plan for this city, on the one hand, it provides a good ground for evaluating each one and orienting them in the face of the shortcomings and difficulties of the city, and on the other hand, it can provide a perspective on the city. Therefore, the need to study the relevant urban development documents and review the implementation of these plans, despite not being seen in the description of the services of these studies, is strongly felt.

The point to consider is the lack of attention to development restrictions on arable land in Aran and Bidgol, because the major area of arable land around the city was located at the northwestern and southern extremities of the area. These lands faced the problem of water supply in order to continue and develop agricultural activities, and with the same reasoning,



they were allocated to the physical development of the city, and this method of physical development of the city caused irreparable damage to the urban green belt. This analysis is consistent with the results of Meshkini et al. 1390. According to the above issues in the review and evaluation of master plans, it can be said that in addition to the shortcomings and problems arising from the goals and demands of the plan, the shortcomings and problems arising from the content of master plans are important. In addition to management problems, inadequacies and problems related to manpower and executive organization, environmental and environmental problems of the project in relation to the urban policies of the project, lack of coordination and sufficient communication between the executive organs of the project and financial constraints to implement the project, These are things that are important. This finding confirms the results of the survival research (1386). But another issue and the subject of our discussion here is the lack of coordination between the forecasts of experts and approved urban plans with the cases implemented by managers at the city level, including Aran and Bidgol, which despite the high costs and energy expenditure and work. Getting manpower, etc. But in practice, these plans have suffered from a lack of kindness, and by neglecting and ignoring the necessities and suggestions of the plans, they are pushed aside. Considering the above, it can be seen to what extent Master plans have been abstract and have added to the problems of the urban system of the country's cities.

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