

Analysis of Socio-Economic Effects of Metropolises on Suburban Villages from the Perspective of Local Communities (Case study: Mehrabad village - Damavand city)

Mohammad Ghasemi Siani*, Assadollah Najafi**

Received	2020/08/01
Accepted	2020/11/22

Abstract

Cities and villages are the main centers of human societies. They shape the geographical foundations of an area that have special relationships with each other based on socio-economic and spatial characteristics. The rapid spread of technology in recent decades has transformed the way of living and working in cities and villages. On the one hand, this expansion has caused anti-urbanism and on the other hand, it has increased the desire for second homes and rest in places far from cities. This is especially the case for neighboring villages in metropolitan areas, especially Tehran and other large cities. Therefore, every rural settlement located on the outskirts and around these urban centers has been exposed to attention and impact, which affected the villages in different ways. The question is that how villagers see these developments and how they feel the impacts of such changes. The purpose of this article is to study the social and economic effects of the expansion and growth of the metropolis of Tehran in the village of Mehrabad from the perspective of the residents themselves. The research method is based on documentary and field studies and quantitative and qualitative methods. The statistical population of this research is the householders of Mehrabad village (612 households), from which, due to financial and time constraints, the researcher selected 230 householders using the Cochran formula. The next step was to randomly distribute a questionnaire among the householders and to analyze the answers using SPSS software. The results showed that, in the social aspect, the most important effect of metropolitan growth and urbanization in Mehrabad village was the change of the attitude of villagers towards rural life and economic activity, and in the economic aspect, it was the imbalance in employment and the decrease in income and savings of the villagers, which has occurred as a result of neglecting agriculture and animal husbandry.

Keywords: village, metropolis, local community, Mehrabad village, suburban villages.

* Faculty member of the Institute of Humanities and Social Studies. Ghasemi_siani@yahoo.com

** Iran Road Maintenance & Transportation Organization.

Introduction

Cities and villages are the main centers of human societies. They shape the geographical foundations of an area that have special relationships with each other based on socioeconomic and spatial characteristics. These settlements due to their spatial and temporal conditions have witnessed fundamental changes in their structure and function over the course of history. As a result of such changes in the environment of these settlements, the relationships, connections and the type of interaction between these two demographic areas have undergone fundamental changes (Afrakhteh, 10: 1392). The ratio of demographic changes in urban and rural settlements in Iran –as a developing country– has been similar to the ration of changes in the total population of the world and more severe than developing countries during the last half century (Zia Tavana and Ghadermarzi, 2009: 120). The study of official censuses of Iran in the last fifty years shows that the share of rural and urban population in the total population of the country has changed inversely and the ratio of rural and urban population respectively from 68.5 and 31.5 percent in 1954 has changed to 31.5 and 68.5 percent in 2006, and it reached to 74% in 2016. These relative population changes in Iran indicate the rapid growth of urbanization, rural urbanization, rural abandonment, the trend of more unbalanced spatial distribution of the population and the like. It seems that four main factors have played a role in this process: (1). The mass movement of people from villages to cities; (2). The conversion of some villages into cities; (3). Natural population growth of cities; and (4). Physical expansion of cities and consequently integration of neighboring villages into the city space (Ghadermzi and Afshari, 2008: 3). However, cities cannot provide adequate living space for the increasing population. Therefore, a part of the population is driven to the suburban areas. This is significant from two perspectives. In the first perspective, poor residents and laborers of villages who are not financially and socially able to live in urban areas are driven to neighboring villages, which are cheaper for living. In this

case, the rural settlements that are closer to the city are the main place to attract such population. In fact, the proximity to the city makes it possible for the residents of such villages to use the services available in the city, especially in the economic field. As a result, due to the low cost of living, especially cheaper lands and houses compared to the city, many migrants who wants to live in a city choose these suburban villages for living. In this process, many of these villages will start to perform a "residential-dormitory" function over time serving as a place where those who work in the city during the day spend the night for sleeping. Therefore, the rural economy gradually alters under the influence of proximity to the city, and the village, which was once a place of mostly agricultural production, becomes a consumer of urban resources. As a result, the economic structure of the village becomes subject to urban economic processes, and rural immigration occurs as a new phenomenon in the last fifty years (Rezvani, 2012, 86). This has happened in most villages that are close to metropolises, especially those that are near the capital city. As a result of immigration, the population of these villages increases tremendously and causes the physical expansion of the villages into the surrounding agricultural lands. Job opportunities, mainly in the service sector, have provided income and employment for the residents of suburban villages. In the second perspective, the villages that have a pleasant climate and are somehow close to the urban centers have become a good place for the upper middle class of the urban community to spend their time away from the crowdedness of the city. In this case, the agricultural lands and gardens of the villagers attract the attention of urban dwellers. As a result, the living spaces of villages gradually expand into the surrounding farms, causing physical, economic, social, and environmental losses and limitations. In this process, the structure of livelihood in villages changes under the influence of proximity to the city, and instead of being a productive area with often agricultural content, villages turn into a place of ignorance and consumption without

identity, and their economic construction becomes dependent on the economic processes of cities. Moreover, being away from the organic internal developments, the socio-cultural aspects of villages become subject to the external socio-cultural currents and developments of cities, which are in conflict with the existing social structure of villages due to their speed and intensity. In the physical aspect, the agricultural lands of villages gain commercial value, and the market for buying, selling and turning them into residential, service and recreational lands flourishes. In the meantime, in addition to the physical changes in the function and nature of villages, the emergence of a class of landowners who have relatively high incomes (comparing to the level of income in villages) boosts the real-estate market in villages. This increasing demand for land lots is one of the factors of irregular and excessive construction, which itself plays a key role in the turmoil of construction and the physical fabric of villages. Nevertheless, the impacts and consequences of unequal and sometimes destructive relations between cities and their surrounding villages are not limited to the aforesaid issues, and other dimensions such as environmental, spatial and managerial-institutional dimensions have also a share in feeling such impacts.

In this regard, Mehrabad village, as one of the villages that are near Tehran and have a desirable climate, has been affected by the attention of urban dwellers and has witnessed the impacts of this phenomenon. In recent decades, the surrounding farms and gardens of the village have succumbed to the cheap housing, and many gardens and rural houses have been destroyed and turned into villas in the process of constructing villas and second homes for urban dwellers. Therefore, due to the sharp increase in population and consequently the expansion of space, the landscape of the village has undergone significant changes under the influence of the city. The dormitory-residential function of the village has become dominant and has caused rapid displacement and high population density destroying the organic and traditional fabric of this village. (According to the Islamic Council of the village, more

than 30 villas and gardens have been bought or built by investors of Tehran in the last 10 years). Thus, a large number of people have gathered in this village who have no roots in the place they live. The inorganic expansion of Tehran, especially in recent years, has led to changes in various dimensions. In this regard, the present study examines and evaluates the effects and economic and social changes of this phenomenon. This study seeks to find an answer to the following questions: What are the socio-economic effects of urban growth and expansion on Mehrabad village? And, how do residents of this village see these developments?

Literature Review

Given the breadth of the subject, many studies have been done in this field. In a general classification, some studies have limited the issue of urban sprawl to the occupation of lands and to the change of their use. These studies include Afrakhteh and Hajipour (2013), Jalalian et al. (2013), as well as foreign studies such as Chalato Tafa (2014) in Eastern Ethiopia, and Bi Ansa (2012) in Romania, which are concerned with urban sprawl and the widespread change in the use of lands. These studies argues that the most important effect of urban growth and expansion (urban sprawl) is the destruction of agricultural lands in suburban villages and the change of their use for commercial, industrial and residential purposes. Other studies have specifically addressed the effects of urban sprawl on environmental degradation, natural resource consumption, and infrastructure efficiency (Batty et al: 2003; Alberti, 2005; Burchell et al, 2002). Another group of studies have examined the social effects, including Gordon and Richardson, who argue that this phenomenon promotes the quality of life and social well-being (Gordon and Richardson, 1997; Bruekner: 2000). In most studies, the negative aspects of urban sprawl have been discussed (Muller and Hmlton, 1994). The negative aspects of urban sprawl include environmental degradation, loss of farmlands, loss of open spaces, exacerbation of traffic problems, declining incomes, increased hidden costs, and loss of sense of community in rural areas (Bengston et al, 2005).

Saeedi, Rahmani Fazli and Ahmadi (2013) believe that several consequences such as population increase due to the arrival of rural and urban migrants and consequently the emergence of new suburban settlements, the change of the use of farmlands to residential and serviced lands, and pollution and environmental issues in rural areas are among the results of urban growth and the integration of villages into cities. Many of the studies that are conducted so far have been concerned with the negative effects of this phenomenon, especially on the environment and land use, and only a few of them have argued quantitatively and qualitatively its socio-economic consequences from the viewpoint of villagers. The distinguishing feature of this study is that it focuses more on the socio-economic effects of rural immigration from the viewpoint of villagers rather than the environmental and physical issues such as the change of land use, environmental and biological pollution of the village, and population growth especially during holidays.

Cities and villages are the main centers of human societies. They shape the geographical foundations of an area that have special relationships with each other based on socio-economic and spatial characteristics. These settlements due to their spatial and temporal conditions have witnessed fundamental changes in their structure and function over the course of history (Mohammadi, Moradi and Hosseini, 2018).

One of the important changes in the relations of these settlements is the expansion or sprawl of cities to the surrounding villages. With the expansion of urban space, the level of urban anomalies in marginal areas increases. Social and residential environment, inappropriate job structures, social failure, and economic poverty, provide the basis for urban damage and the uncontrolled growth of anomalies, as well as the spread of social insecurity in the outskirts (Kargar and Sarvar, 2011: 7).

During the second half of the twentieth century, migration to the city center reversed and the population overflowed out of the city and moved into the suburbs (Krieger, 1999: 16). The term 'sprawl' was an entry in the

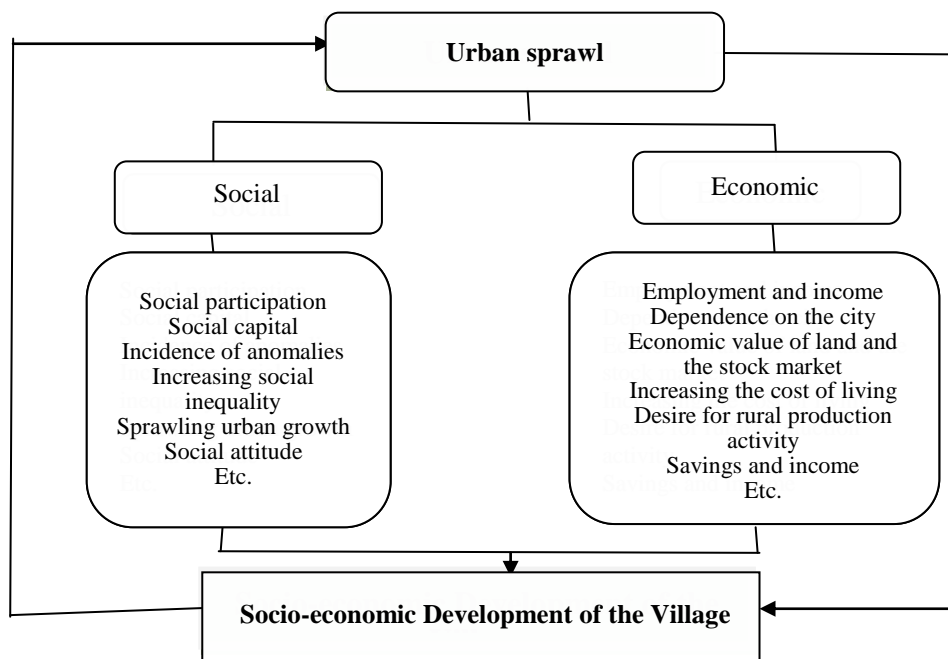
dictionaries of land estates until the mid-1940s. Whereas it has become a collocation of the word 'urban' and 'rural' in these dictionaries. Rural sprawl can be seen as a demographic manifestation in the American conservatism –an economic and social movement in the 1960s.

One of the most important challenges that researchers have always pointed out regarding 'sprawl' is the lack of a comprehensive and complete definition of this phenomenon, claiming that it has not a single and clear definition (Wilson et al., 2003; Johnson, 2001; Angel et al., 2007; Ashkenazi and Frankel, 2007). An examination of the definitions provided by the experts shows that a number of them, such as Clawson, Harvey and Clark, and Archer and Otensman, place more emphasis on the physical dimensions of the phenomenon and consider it as the continuous sprawling expansion of cities along the access roads of cities. In these definitions, this expansion is commercial and irregular with a low density (Clawson, 1962; Harvey and Clark, 1965; Archer, 1973; Otensman, 1977). This purely physical definition of the phenomenon prevailed until the early 1980s, but the emergence of discussions on the ecological consequences of this phenomenon and the increasing concerns of the public have encouraged some researchers, such as Ewing, Galster, and Downes, to focus more on the environmental issues. These researchers do not consider the phenomenon as a pattern for urban development, but define it as a pattern that has many environmental consequences (Ewing, 1997; Downs, 2001).

According to Hayward, the number of people who can afford to live in the suburbs are now more than before. With this in mind, it is unrealistic to expect cities to grow with their previous density as the middle class grows more and more successfully. In addition, the growth of the upper middle class increases the demands for larger homes with yards. In this situation, due to the insufficiency of lands within the cities, there is an increasing tendency for people to leave cities and settle in villages near them. The influx of the upper middle class to these

villages and the purchase of lands and gardens of villagers to construct villas (second homes) have many environmental, social, economic and physical effects. In this

study, we tried to investigate the socio-economic effects of urban sprawl on the destination community (village) and prepared the following conceptual model.



F1. Conceptual model of Research.

Research Method

A descriptive-analytical method was used to do the present research. The approach of research is a combination of quantitative and qualitative methods. First, qualitative interviews were conducted to examine and evaluate the effects of urban sprawl and expansion on Mehrabad village. After that, the categories and dimensions of the effects were identified and indexed. In the qualitative method, the required information was collected through the interviews that were conducted to identify the most important consequences and effects of the metropolitan growth in the socioeconomic dimensions of the village. To collect information through interviews, 15 interviews were conducted in the group of officials and experts of the village. In this stage, the village governor (1 interview), the members of the Islamic Council of the village (3 interviews), the mayor and employees of Boumehen municipality (3 interviews), and experts and influential people living in the

village (5 interviews) were interviewed. (Experts and influential people include: 1 resident real estate agent, 3 elders, 1 chairman of the village council). Moreover, we interviewed some educated people living in Tehran and Damavand (3 interviews, including 1 physician and 2 university instructors).

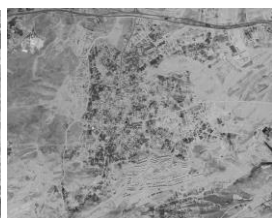
In the quantitative section, a questionnaire was distributed among the households of Mehrabad village. The questionnaire contained questions about the socioeconomic effects of immigration and urbanization in the village. After collecting the questionnaires, the data were analyzed using SPSS software. The statistical population of this study was divided into two groups. The first group was the villagers living in the village, who were studied using the quantitative method. The second group was a number of experts including executives, managers and rural development specialists familiar with the conditions of the region, who were studied using the qualitative method. To limit the sample size in the first group, we applied the

Cochran's formula and selected 230 households out of 612 households in the village. Moreover, to determine who should receive the questionnaire we used simple random sampling.

Mehrabad village is one of the subdistricts of Mehrabad rural district in Roodehen, Damavand city, Tehran province. This village is located in the south of the main access road of Tehran-Damavand. According to the 2006 census of the Statistics Center of Iran, its population was 1592 people (412 households). In 2016, the population increased to 3278 people (612 households). As the time passed and the village grew larger, the population increase due to migration caused many villas to be constructed in the village. In this process, the village gardens obtruded upon attention. Agriculture has almost lost its prosperity in the village due to the construction of more than four thousand 500 housing units (at the time of field study, houses had not yet been fully delivered). However, there are still people who are active in agriculture, animal husbandry and horticulture (Islamic Revolution Housing Foundation, Village Guide Project, Naghsh Click Consulting Engineers Company 2015).



Aerial photograph of Mehrabad village (2005)



Aerial photograph of Mehrabad village (2018)

F2. The process of growth in Mehrabad Village.

Research Findings

In this section, the research findings are analyzed separately in two parts: quantitative and qualitative.

Qualitative findings

In the qualitative phase, 15 interviews were conducted regarding the evaluation and impact of urban sprawl on the socioeconomic development of Mehrabad village. Then, the interviews were analyzed using the basic theory method in three coding stages (open,

axial and selective). It should be noted that the interviews continued in a semi-structured manner until sufficient information were collected to outline the theoretical framework. After that, while avoiding elaboration, the results in the coding steps (optional and pivotal) are shown in tabular form. Table 1 shows the main categories and concepts.

Social Metamorphosis and Inadequacy

With the expansion of rural community in Mehrabad village, the arrival of immigrants with different styles and cultural backgrounds, and the spread of urban customs in the village, a kind of heterogeneity has arisen in rural society and many values of Mehrabad village have been forgotten and faded away. Values such as loyalty to the heritage of the past, respect for land and water, avoidance of extravagance, advocacy of self-reliance, productivity, intimacy and empathy, and other similar values have been forgotten, and urban culture has penetrated into the village. In this process, the values and attitudes of the villagers have changed and are somehow solved in urban modernism, and the social capital of the village has diminished. Youngsters of the second and third generations are not interested in agricultural activities and animal husbandry. They prefer activities that provide services. Some of them are even involved in black jobs. Quite shockingly, to have such jobs, they sell their fatherlands. With the spread of quasi-urban culture, a majority of people desire a lavish lifestyle. It has also had an impact on childbearing and has led to the creation of families with one or two children in an urban lifestyle.

On the one hand, participation, assistance, and empathy in the village have decreased, and many of the village affairs that were previously done in cooperation of people are now considered as the duties of the council and village administration, and the residents do not participate in the development of the village.

A shift in values and the reduction of social capital have led to an increase in anomalies and the prevalence of violence and theft, while the arrival of satellites and the change

of lifestyle in the village has caused many problems among rural households. For example, at the end of the week, many newcomers disturb the local residents of the village by holding celebrations and periodic ceremonies. This has been effective in changing the morale and character of the youth. All of this has led to increased inequality in rural areas.

... The rich have come from Tehran to build villas here, they have bought gardens, they hold their birthdays and weddings in these gardens, their culture is not in line with our culture, their works and ceremonies are different from ours, these things have had a

great impact on the youngsters. If we are affected, the effect of these actions cannot be expressed in numbers ... In a word, these have caused the spread of corruption and anomalies in the village ...

On the other hand, selling the lands of the village, increasing the cross-sectional growth of capital, increasing social relations with urban dwellers, and accepting urban customs, were all effective on the sociocultural habits and ceremonies of the villagers such as marriage, weddings and even mourning, which are now more similar to those prevalent in the city of Tehran and Damavand.

Main Category	Categories	Concepts
Social (cultural) metamorphosis and inadequacy	Alteration of social values	Losing the desire for agricultural activities and animal husbandry, increase of luxuries, promotion of consumerist culture, change of lifestyle, desire to reduce childbearing
	Decrease of social capital	Losing the sense of cooperation, decrease in the cooperation of people with each other, change in the homogeneity of the village, losing people's trust in each other, increase in conflict and strife, difference in social level of the people, decrease in empathy and cooperation
	Alteration of attitudes	Losing hope in agriculture, increase in service activities, prevalence of false employment, sale of land, preference of villagers to live in the city, believing in a lavish lifestyle, consumerism
	Increase of anomalies	Increased conflict, increase in addiction, popularity of satellite, increase in individual crimes, feeling poverty, increase in alcohol use
	Increase of social inequality	Increase in inequality, social gap, having a sense of poverty
	Dominance of urban culture	Reduction of livestock and agriculture, tendency to buy luxury goods, decrease of productivity, an increasing desire for leisure, change of demographic structures, decrease of intimacy, decrease of family ties
	Imbalance in employment	Increase in unemployment, decrease in the level of agricultural activity, decrease in women's employment, reluctance of young people to family jobs, impossibility of animal husbandry in the village, tendency to ruin agricultural lands, increase in false jobs and entrepreneurship, increase in service activities
	Costs increase	Decreasing the ability to finance household expenditures, promoting a culture of consumerism, reducing purchasing power, insufficient prices of agricultural products, inflation
	Income and savings decrease	Decrease in income, increase in costs and decrease in savings, promotion of consumerism, demolition of land to build villas and decrease in income, destruction of livestock
	Increase of the economic value of land lots	Villa construction, increasing the economic value of lands, the desire of urban dwellers to buy rural lands, increasing commercial and residential land uses, selling farms and gardens, increasing land stock exchange

T1. Categories and concepts in the selective coding stage.

One of the cultural characteristics of the villagers, which has various social manifestations in different areas of their lives, is cooperation. Cooperation and intra-group participation in our country has both spiritual and material roots. Field studies in the village of Mehrabad indicate that due to the increase in household income, participation, harmony and empathy between them has decreased to some extent. In fact, some residents, due to their financial superiority as a result of having more land, have lost their attention to others and have also gradually reduced their forgiveness and self-sacrifice.

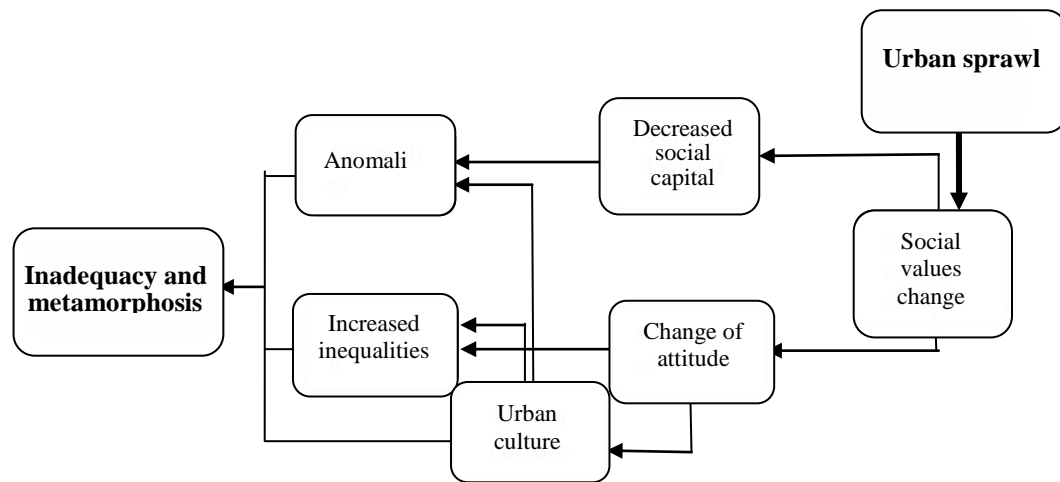
... You see, in the past, when there was a

breakdown or a problem in the village, everyone repaired it hand in hand. Now, the youth and the villagers want to be the same as the city dwellers. For example, when there is a problem in the village if you say let's fix it, they answer, so what does Village Office do? We are not the one who should solve the problems, we have a council, we have a mayor. Some of them sold their agricultural land, bought houses in the city and only come to the village during the holidays. They no longer consider themselves villagers, they do not feel sorry for the village, they have become urbanized ...

Decreasing the spirit of effort and hardworking among the villagers in order to

earn a legitimate livelihood is lost, and instead the culture of earning too much money with less work is replaced. There is also a lot of tensions and disputes due to increased demand for household items that sometimes do not fit the conditions and structure of family life (such as cars). An increasing demand for expensive and luxurious items and a competitive lifestyle in consumerism are other cultural consequences of the growth of urbanism. Moreover, the desirability of rural lands has increased the prices of lands owned by the villagers. Therefore, with the phenomenon of urban sprawl in the villages of Mehrabad, the social values of the village have changed, and this

has led to a decrease in social capital in the village changing the rural attitude accordingly. With the dominance of urban culture and the penetration of relatively prosperous communities in the countryside, social inequalities have intensified and the feeling of poverty has become more prevalent among the villagers. This has led to an increase in social anomalies and conflict in the village, which has intensified the occurrence of crime. Social anomalies and inequalities have somehow led to social transformation and inadequacy throughout the village. Figur 3 shows the occurrence of social effects of urban sprawl in Mehrabad village.



F3. Social impacts of urban sprawl on Mehrabad Village (field studies, authors, 2018)

Metamorphosis and Economic Inadequacy

In Mehrabad village, due to the influx of urban dwellers to build second homes and have gardens and recreational areas, encroachment on agricultural lands has intensified. Moreover, the increasing demand for lands and the loss of interest in agricultural and livestock activities have increased land prices in recent years. A large number of villagers and early owners have sold their lands for profit. In this situation, some villagers have gained a lot of profit and significant capital by selling land, which makes them inclined to quasi-urban life and or even migration to the city. With the abandonment of agriculture and animal husbandry, these villagers have tended to live

a luxurious life in the city, and consumerism has increased as a result. Some of the villagers and the rural community of Mehrabad, by abandoning their agricultural jobs, have turned to jobs that provide services and those relevant to real estate market. This is evident in the existence of five real estate agencies in the village, all of which have been established in the last 10 years. With the closure of agriculture and animal husbandry in the village, the villagers have now become somewhat dependent on urban production, and households that previously supplied meat, milk, bread, etc., now supply their daily needs from the cities and supermarkets. Currently, in this village, from a social and cultural point of view, occupations such as agriculture and animal husbandry have a negative burden and

a negative attitude, as it was repeatedly mentioned in interviews:

Previously, in this village, each household had a number of livestock and poultry, it produced its own food, eggs were even sold to the cities, now less people show interest in animal husbandry and agriculture, all materials must be bought from the shop, even in the village there has been opened a bakery recently.

The spread of consumerism and lavish lifestyle has increased the cost of living for rural households. For example, vehicle has become an essential commodity needed by everyone in the village. Moreover, the style of architecture and housing has been changed. An example of this change is the use of open kitchens, which is a typical style of urban architecture, in rural houses.

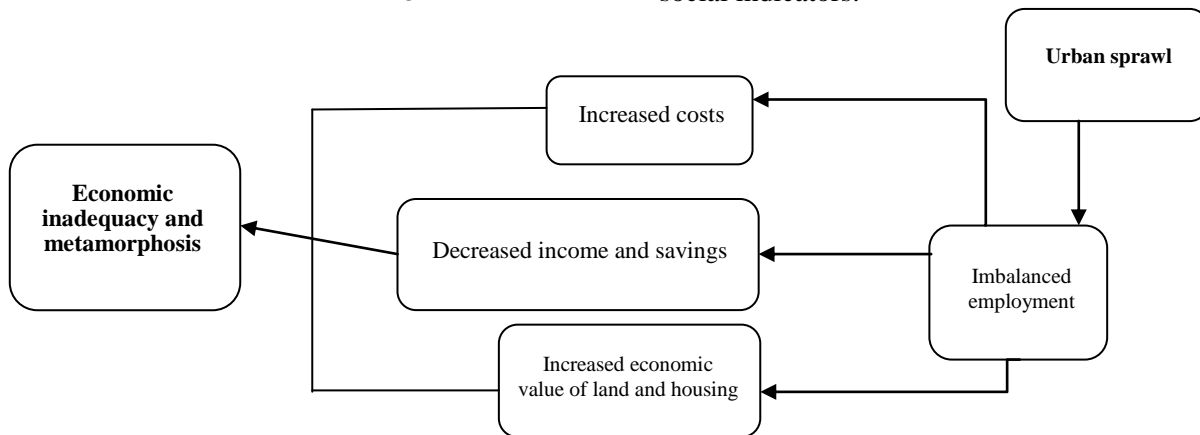
Consumerism on the one hand and the closure of income-generating employment in agriculture and animal husbandry on the other hand among rural households has reduced their income and savings. Therefore,

employment and production, which are the most important pillars of economy in any rural society, have been proved inadequate and failed. It is to be noted that the economy of this village has been dependent on agriculture and animal husbandry, but it is now the culture of consumerism that dominates the culture of production. These changes have been adversely effective on the lifestyle of families. Background model No. 2 shows the economic relations of Mehrabad village in the process of urban sprawl.

Findings in the quantitative section

Social dimension

One-sample t-test was used to analyze the questionnaires. In this study, the mean value is equal to 3 as a numerical and expected utility. The results showed that in the social dimension, all the identified indicators and consequences related to the effects of metropolitan growth in Mehrabad village have been confirmed. Table 2 shows the results of this study in social indicators.



F3. Social impacts of urban sprawl on Mehrabad Village (field studies, authors, 2018).

Dimension	Component	Degrees of freedom	Level of significance	T-test	Mean	Result
Social	Change of social cooperation	232	0.000	4.35	3.34	Confirmed
	Decrease of social capital	232	0.000	3.51	3.51	Confirmed
	Urbanism growth	232	0.000	8.45	3.67	Confirmed
	Increase of social inequality	232	0.002	4.65	3.29	Confirmed
	Anomalies	232	0.000	4.87	3.25	Confirmed
	Change of social attitude	232	0.000	6.21	3.56	Confirmed

T2. Results of one-sample t-test of the effects of metropolitan growth on the social dimension in Mehrabad village from the perspective of rural households (field studies, authors, 2018).

In the social dimension, the growth index of urbanism phenomenon has the highest value of t-statistic and the calculated average value is 3.67. It has received the greatest impact from the growth of urbanism in Mehrabad village. In contrast, the incidence index of level of 0.001, indicating the effect of urban growth phenomenon at a confidence level of 99%. It is to be noted that rural areas are always known as environments that are in a satisfactory position in terms of social indicators such as social capital, customary and traditional values and structures, and the lack of anomalies and inequalities. Accordingly, the occurrence of the phenomenon of urban growth in the village of Mehrabad, not only hinders the development of the village but also in the future, it will face with far more social problems.

Economic dimension

The study of changes in economic indicators affected by the phenomenon of urban sprawl in Mehrabad village shows that this

social anomalies is considered as an index with the lowest calculated average value equal to 3.25, and the effects of metropolitan growth on it have been calculated at a significance level of 0.000. In general, the calculated average is 3.35, at a significance phenomenon has been effective in all economic components. The most important component affected by this phenomenon is the imbalance of employment among villagers. This component has the highest level of t-test and the highest average (3.84). On this basis, due to the imbalance in rural employment, the income and savings of the villagers have decreased in the second stage. This component is in the second stage with an average of 3.67. In total, the economic components in Mehrabad village with a calculated average of 3.40 were confirmed at the significance level of 0.001 and with 99% confidence. Table 3 shows the results of t-statistic in the economic components studied in Mehrabad village.

Dimension	Component	Degrees of freedom	Level of significance	T-test	Mean	Result
Economic	Imbalanced employment	232	0.000	9.35	3.84	Confirmed
	Costs increase	232	0.000	5.51	.351	Confirmed
	Decreased income and savings	232	0.000	8.45	3.67	Confirmed
	Increased prices in real estate market	232	0.000	4.65	3.29	Confirmed
	Losing interest in production (agriculture and livestock)	232	0.000	4.87	3.25	Confirmed
	Dependency on the city for earning livelihood	232	0.000	7.21	3.56	Confirmed

T3. Results of one-sample t-test of the effects of metropolitan growth on the economic dimension in Mehrabad village from the perspective of rural households (field studies, authors, 2018).

Conclusion

This study has investigated and evaluated the effects of urbanism and urban growth in Mehrabad village. The most important purpose of this research was to evaluate the socioeconomic effects of this phenomenon. As a matter of course, the research was not concerned with physical and environmental aspects of this phenomenon. Therefore, the main quest of the research was to find the socioeconomic effects of urban growth and development in Mehrabad village.

In order to answer the research question, qualitative and quantitative methods were used and in the qualitative stage, 15 semi-structured interviews were conducted and analyzed by grounded theory method. At the end, the coding and the background model of each dimension according to the concepts,

components and the obtained categories were drawn.

Then, using a quantitative method and a questionnaire, the indicators of two social and economic dimensions of households living in the village were questioned and evaluated, and then the results were analyzed with the help of SPSS software. The results showed that in both dimensions, the phenomenon of urban growth in rural areas has been effective. In the social dimension, the growth index of urbanism was ranked first with an average of 3.67 and then the index of change of social attitude was ranked next with an average of 3.56. The results showed that the average was higher than 3 in all indicators and the phenomenon of urban growth and expansion in all the social indicators of the village have been influential

(with intensity and weakness). Among them, the least impact was on the occurrence of social anomalies, which was less than other indicators.

In the economic dimension, the results showed that the employment imbalance index had the highest average. This has violated the balance between income, production, employment and rural life in the village due to urbanization. In the past, with employment in agriculture and animal husbandry, household needs and livelihood have been acceptable. Now, with the reduction of livestock activities due to the reduction of pastures and agricultural lands and the lack of desire in agriculture and animal husbandry, there is an imbalance between income and livelihood. The increase of costs and the reduction of income is in the second rank. In this dimension, the highest average is 3.84, 3.67 and 3.56. Moreover, due to employment imbalance, decrease in income and increase of expenses, and the fact that earning income is dependent on the city, there is an inadequacy in the economic dimension of Mehrabad village.

References

Afrakhteh, Hassan (2013). The Role of Spatial Flows in the Rural Sprawl Process, Case study, Soleimanabad district. *Spatial Physical Planning Quarterly*, No. 2, pp. 9-24.

Afrakhteh, Hassan and Mohammad Hajipour (2013). Urban Sprawl and Its Consequences in Sustainable Rural Development, Case Study: Villages Around Birjand. *Quarterly Journal of Geography (International Quarterly of the Geographical Society)*, No. 39, pp. 158-185.

Jalalian, Hamid; Ziaei, Parviz; Daroui, Parasto and Khadijeh Karimi (2013). Urban Sprawl Analysis and Land Use Developments in Comparative Studies of Urmia and Isfahan. *Spatial Physical Planning Quarterly*, Second Year, No. 4, pp. 73-98.

Rezvani, Mohammad Reza (2012). Analysis of Patterns of Urban-Rural Relations in Rural Areas Around Tehran. *Quarterly Journal of Geographical Research*, Volume 34, Number 43, pp. 81-94.

Saeedi, Abbas; Rahmani Fazli, Abdolreza and Manijeh Ahmadi (2013). Urban Annexation of Rural Settlements around the City of Zanzan; Case Study: Sayan and Gavazang villages. *Journal of Housing and Rural Environment*, No. 33, pp. 3- 16

Zia Tavana, Mohammad Hassan and Hamed Ghadermarzi, (2009). Land Use Changes in Suburban Villages in the Urban Sprawl of Naysar and Hassanabad Villages of Sanandaj. *Journal of Human Geography Research*, University of Tehran, No. 168, pp. 119-135

Kargar, Bahman and Rahim, Sarvar (2011). *City, Suburbs and Social Security*, Tehran: Geographical Organization of the Armed Forces Publications.

Mohammadi, Saadi, Eskandar Moradi and Shermin Hosseini (2018). Identification and Analysis of the Effects of Urban Sprawl on the Development of Rural Areas, Case study: Villages around the City of Marivan. *Journal of Applied Research in Geographical Sciences*, 20th Year, Number 56, Spring 1397, pp. 68-91

Alberti, M., (2005), The effects of urban patterns on ecosystem function, *International regional science review*, 28(2), 168-192.

Angel, S., Parent, J. and Civco, D. (2007) "Urban Sprawl Metrics: An Analysis of Global Urban Expansion Using GIS", *Proceedings of ASPRS 2007 Annual Conference*, Tampa, Florida May 7-11.

Archer, R.W. (1973) "Land Speculation and Scattered Development: Failures in the Urban-fringe Market", *Urban Studies*, 10, 367-372.

Batty, M., Besussi, E., & Chin, N., (2003), *Traffic, urban growth and suburban sprawl*.

Bengston, David N.; Robert S. Potts; David P. Faen and Edward G. Goetz (2005) "An Anlysis of the Public Discourse about Urban Sprawl in the United States: Monitoring Concern about a Major Threat to Forests", *Forest Policy and Economics* Volume 7, Issue 5, August 2005, Pages 745-756.

Brueckner, J. K. (2000) "Urban Sprawl: Diagnosis and Remedies", *International Regional Science Review*, 23(2), 160-171.

Burchell, R., Downs, A., McCann, B., & Mukherji, S. (2005), *Sprawl costs: Economic impacts of unchecked development*, Island Press.

Burchell, R.W., Lowenstein, G., Dolphin, W.R., Galley, C.C., Downs, A., Seskin, S., Still, K.G. & Moore, T., (2002), *Costs of Sprawl 2000*, Transit Cooperative Research Program (TCRP) Report 74, published by Transportation Research Board, Washington

Clawson, M. (1962) "Urban Sprawl and Speculation in Suburban Land", *Land Economics*, 38(2), 99-111.

Downs, A. (1999) "Some Realities about Sprawl and Urban Decline", *Housing Policy Debate*, 10(4), 955-974.

Ewing, R., Pendall R., Chen D. (2002) "Measuring Sprawl and its Impact" Vol. 1 (Technical Report). *Smart Growth America*, Washington D C.

<http://www.smartgrowthamerica.org>

Johnson, MP. (2001) "Environmental Impacts of Urban Sprawl: A Survey of the Literature and Proposal Research Agenda", *Environ Plan A* 33: 717-735

Krieger, D. J. (1999). Saving Open Spaces: public support for farmland protection. American Farmland Trust Center for Agriculture in the Environment. National Conference Proceedings: The Ohio State University, Columbus, Ohio, September. Available from: <http://atvb.ahajournals.org/>.

Lungo, M., (2001), Urban Sprawl and Land Regulation in Latin America, *Land Lines*, Volume 13 (2), 28-39.

Muller ES, Hamilton BW (1994) *Urban Economics*, Harper Collins College, New York.

Ostrom, E. (1990), *Governing the commons*, Cambridge University Press, Cambridge;

Vescovi, F. D., Park, S. & Viek, P. I. G. (2002), Detection of human-induced and cover change in savannah landscape in Ghana: 1. change detection and quantification. 2nd workshop of the EARSEL special interest group on remote sensing for developing countries, 18-20 September, Bonn, Germany;

Wilson, E.H., Hurd, J.D., Civco, D.L., Prisloe, S. and Arnold, C. (2003) "Development of a Geospatial Model to quantify", describe and map urban growth. *Remote Sensing of Environment*, 86(3), 275-285.