

## شهر گریزی و تغییرات کارکردی در نواحی روستایی شمال تهران\*

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### چکیده

نواحی روستایی اطراف شهر تهران و از جمله ناحیه رودبار قصران به دلیل شرایط خاص اکولوژیکی عرصه ای تکمیلی برای کلاتشهر تهران محسوب می شوند. به همین دلیل روابط شهر و روستا در این نواحی متحول شده و با بروز پدیده شهر گریزی موقت و دائمی، تغییرات عملکردی گسترده ای در چند دهه گذشته در روستاها بوجود آمده است. هدف این مقاله بررسی تغییرات کارکردی ناحیه رودبار قصران در طی سالهای ۱۳۴۵-۱۳۸۲ است. در این راستا با استفاده از داده های ثانویه و انجام مطالعات میدانی و از جمله تکمیل پرسشنامه تغییرات اقتصادی - اجتماعی ناحیه بررسی گردید. نتایج مطالعات نشان می دهد کارکردهای جدید گردشگری، سکونت و صنعتی در این ناحیه بوجود آمده و در مقابل کارکردهای سنتی ناحیه در زمینه کشاورزی و دامداری تضعیف گردیده است. متأسفانه این تغییرات بر اساس طرح و برنامه و مدیریت موثر نبوده و به همین دلیل آثار و پیامدهای نامطلوبی ببار آورده است. با توجه به شرایط خاص اکولوژیکی در این ناحیه و اهمیت حیاتی آن برای کلاتشهر تهران، برنامه ریزی و مدیریت موثر و کارآمد فعالیتهای اقتصادی و اجتماعی به ویژه گردشگری خانه های دوم ضروری بوده و می تواند نقش موثری در توسعه پایدار ناحیه از جمله در زمینه گردشگری داشته باشد.

**کلید واژه ها:** شهر گریزی روابط روستایی - شهری، تغییرات کارکردی، استان تهران.

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نویسنده مسئول :

# ***Counter-urbanization and Functional Changes in Northern Rural Areas of Tehran***

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## **Abstract**

Having desirable ecological conditions, the rural area of Rudbar Ghasran located in the northern part of Tehran is acted as a complementary area for this metropolitan. It has undergone radical changes in the past few decades due to counter-urbanization and prevailing urban-rural relations. This paper present functional change occurred during 1967 -2004 in this area. To do so, secondary data, field studies and questionnaires were conducted to investigate the socio-economic changes. The results indicate that new functions such as tourism and industrial activities have been developed in this area while the traditional functions of the area such as farming and cattle breeding have faded away. Unfortunately, these changes have not been based on any preplanned programs and management. This in turn has led to adverse environmental and socio-economic consequences. Considering the ecological significance of this area regarding Tehran metropolitan, implication of proper management of the socio-economic activities and preplanned programs especially in the area of second homes is of prominent importance. This in turn, may lead to a sustainable tourism per say.

**Keywords:** Counter-urbanization, Urban - rural relation, Functional changes, Tehran Province.

## **Introduction**

The trend of social life development and the increase of man's needs along with the expansion of transportation and communication networks and the commercialization of financial activities nowadays have led to the boosting of urban – rural relations. These relations manifest themselves in the form of natural phenomena, food, people, and ideas (Lynch, 2005). Different kinds of these relations can be found in various geographical areas having rural or urban functions. Accordingly, the range and magnitude of these relations as well as their consequential impacts not only is much wider but also is being affected by cities hinterland relations, developmental nature of infrastructure and diverse fiction of urban function. The rural-urban relations of these areas match the periphery model so that the rural areas are acted as a complementary area for urban functions (Saeedi, 1999).

Tehran metropolitan as a socio-economic and political center of the country has different relations with various rural and urban areas at the national and regional level.

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However, like other cities, this city has had some local affected areas and certain relations with its peripheral areas. It should be noted that unlike the small towns and cities which have a limited peripheral area, Tehran enjoys numerous and vast peripheral extent and hinterland relations. Nowadays, the towns and villages of Shemiranat, Karaj, Nazarabad, Hashtgerd, Shahryar, Islamshahr, Pakdasht, Varamin, Rey, Damavand, and some parts of Firoozkuh act as hinterland of Tehran. The concentration of political, socio-economic, and cultural activities in this city and its unprecedented growth in recent decades have accelerated the development of urban-rural relations. This in turn has led to the expansion of peripheral areas, counter-urbanization and subsequent radical changes in the surrounding rural areas. Tehran's increased air pollution level, its sky-racketing land and house prices along with the government's decentralization policies and imposed of construction restrictions in recent years all have created a milder counter-urbanization. These in turn, have intensified the magnitude of these relations with respect to the ecological difference. Tehran's relation patterns differ from these peripheral and hinterland extent. Having unique ecological conditions and being as mountainous area, the northern rural areas of Tehran are mainly used for recreational and resort purposes, whereas the eastern, southern and south-western parts of the city due to their flat nature and the availability of transportation facilities, are used for different functions including residential, industrial, waste dumping and installation of urban facilities etc.

Having special ecological features and acting as one of the main water source providers of the city, the northern mountainous areas of Tehran are of greater significance and are more susceptible to functional changes. To study the functional changes of this area especially those which have taken place in recent years, and in order to analyze the environmental and socio-economic impacts created by these changes, planning and proper management of the present activities can be of great significance.

This paper deals with the functional changes of Rudbar Ghasran within the framework of rural-urban relations and counter-urbanization during 1967-2004 time periods. In general, this paper aims to answer the following questions:

- What are the significant population changes in this area during 1967-2004 and what kind of population trends are compatible with these socio-economic changes?
- What are the most spectacular economic changes during 1967-2004? What general trends can be attributed to these developments?
- What kind of socio-economic and environmental impacts these functional changes have brought about?

## **Context of changes in rural areas**

In the past few decades, widespread socio - economic, cultural and physical changes have taken place in rural areas of developed and developing countries of the world. These changes have resulted from urban-rural relations and their consequences especially counter - urbanization. The attractions of rural areas such as quietness, healthy environment, possession natural landscapes, and low cost of land and houses from one hand and the prevalent urban problems such as increasing level pollution, overpopulation congestion, high land and accommodation costs on the other hand have played a significant role in this regard.

Mass waves of rural-urban migration accentuate the trend of counter-urbanization. This phenomenon was first observed in United States nearly 30 years ago and then was experienced by some European countries, Canada, Australia, and to a lesser extent some developing countries. As a result, the term “counter-urbanization” has turned into a popular jargon in contemporary researches (Frey, W.H. 1993). It should be noted that counter-urbanization may be caused by different factors in different times.

In general, attractions of rural areas as, attractions industrial decentralization and other socio-economic activities as well as planning policies are regarded as the main causes of counter-urbanization and reverse trend of migration.

Overcrowding and accordingly environmental pollution in cities from one hand and tranquility of countryside and other rural specifications on the other all have made people move to areas which are more pleasant than their former residence. According to Bruce (1994), this trend reflects the “countryside ideal” which suggests that rural areas are safe, pleasant, bucolic and desirable. As Shuck Smith (1994, p 128) suggests people have often migrated 'in search of these balanced rural communities where everything was harmonious and picturesque'. He suggests that the perception of reality may be the key to explaining migration from cities to rural areas. Many move to countryside and rural areas based on their ideal or social representation of reality (Shuck smith, 1994). Much of the migration is motivated by the desire for a 'rural lifestyle'.

Another significant factor in counter-urbanization and migration to rural areas concerns the planning policies undertaken and implemented by the government or other organizations in charge of providing houses, services, transportation systems, redistribution of population, and even economic growth. These policies at local, regional or national levels may increase or decrease of migration, population growth of rural areas and counter-urbanization. Nowadays, in many countries which face rapid population growth of cities and metropolitans, policies in the form of strategic and master plans in the domains of administration, housing, services and industrial activities are adopted and implemented in order to control the spontaneous growth of

metropolitans (Fuguitt and Beale, 1996). Thus the kind of policies taken at a given period can affect, constrain, or encourage rural migration.

Decentralization occurs because the businesses which used to be dependent on metropolis can now function efficiently outside their original boundaries, and this is not but due to the greater locational flexibility which allows them to thrive and attract new workers. Wardwell (1980, p.89) felt that residential preferences, consumption values and new locational flexibility allows the firms to select workers from a wide range of city sizes with few negative consequences. As a result, the modernization trends observed in countryside brings lifestyle changes and this in turn leads to fewer differences between rural and metropolitan areas. In some instances this has resulted in formerly non-metropolitan counties to develop into a new 'metropolitan' and the cycle is repeated again as people later move to remoter places. This condition has contributed to the development of far-away rural areas which has caused in some instances an increase or reversal in metropolitan growth rates in 1970s. Both Lessinger (1991) and Garreau (1991) have documented widespread suburbanization and growth at the edges of metropolitan areas.

Based on their incomes, occupations or tendencies, the people and households may decide to stay or migrate to rural areas and countryside, but their decisions are strongly shaped by the factors listed above. This condition provides constraints and limitations affecting their decisions. Residential preferences and the desire to leave the city with all its undesirable characteristics such as crime, noise, pollution, high costs, etc to name just a few and heading for the 'bucolic' rural areas often leads to the decision to move. Such decisions may lead to relatively short-distance 'decentralization' or to more distant moves to the edge of urban areas. In general, a lot of individual decisions can be playing a role in counter-urbanization. However, an understanding of individual motivations can be contributes a light on the proper explanation of this phenomenon (Dahms, F.A. 1995).

## **Methodology**

Longitudinal Study was used to determine the functional changes at Rudbar Ghasran area within the framework of rural-urban relations, the results of which can be used to review the socio-economic changes and analyze the relevant trends. The time period between of 1967-2004 was chosen, due to the fact that censuses regarding secondary data had been carried out in that specific time period. With the same token, the population census of 1967, 1977, 1987, and 1997 and the findings of 2003 workshop census were deployed in order to study the population changes of the area

agricultural census of 1994 and 2004 were used to explain the economic changes in the field of agriculture (farming, horticulture and stock breeding. Description of changes brought about in the service and industrial units of Rudbar Ghasran area were done using two workshops census conducted in 1995 and 2004. As supportive contextual studies, some relevant articles, university thesis research plans and dissertation were used as well.

In order to gather the required data, field studies as well as local observation were conducted. As such questionnaires handed out among villagers. To obtain other needed data, the members of the village council were also interviewed.

### **Study area**

Rural area of Rudbar Ghasran is located in the northern part of Tehran (35 km). It lies on the foothill of central Elborz ranges. Its area has been estimated up to 373 square kilometers. It possesses moderate summers and cold and snowy winters. Falling of snow in autumn and winter provides an opportunity for winter sports including skiing. There are several ski runs such as Diezin in this area. Jajrood River which supplies about 0.35 percent of Tehran's waters resources through Latyan Dam is also situated in this area.

This area accommodates in itself 22 villages and one town. According to the statistics nearly the 15862 people lived in this area among which 7196 lived in villages the rest are being occupied towns of Ushan-Fasham-Migun (SCI, 2002). Horticulture and cattle breeding were the most significant activities of the past; however, in recent decades they have been replaced by tourism-related activities.

Furthermore, the ecological conditions of Rudbar Ghasran in comparison with Tehran are very spectacular, so that it could attract lots of people. This situation is amplified due to high rate of Tehran's air pollution. Thus, it is argued that Rudbar Ghasran is acting as a complementary area for Tehran metropolitan.

### **Counter-urbanization and population changes of the area**

Migration is viewed as the key component of counterurbanization. It is most frequently defined as the relocation of urban residents from large (often metropolitan) to small (often non-metropolitan) places. This emphasis on residential relocation is understandable, given that migration was a key element. In fact, a large part of this article was devoted to a discussion of the movement of metropolitan residents to natural environments. This sets the stage for the interpretation of counterurbanization as a migratory movement. According to table 1, this area has had a negative population growth during the period 1967 -1997. This can be attributed to the great

magnitude of migration. In fact this area used to perform a recreational function through development of second homes. Until 1997 this function increases the temporary population of the area in the summer and weekends. Furthermore villagers' immigration to city converted some of their houses into second homes. Occasionally new ones were erected.

**Table 1**

**Population changes of Rudbar Ghasran during 1967-2004**

Year	Population	Annual population growth rate (percent)
1967	13465	-
1977	11994	-0.16
1987	12661	0.5
1997	11732	-0.76
2004	15862	3.1

*Statistical Source: SCI, 1967-2004.*

Some new functional changes have taken places in recent years which resulted in both emigration and immigration.

The development of accommodation-residential function in small towns of Ushan-Fasham-Migun and expansion of small industrial lathing workshops need considerable attention in this regard.

According to the relevant statistics, 11.9 percent of immigrants have moved from village to city, 54.24 percent from city to city, 7.98percent from village to village and 22.61percent from city to village within decade years (SCI, 2002). In fact, Tehran in comparison with other provinces has had a double rate of urban-rural migration.

However some 362343 people which have moved from cities to villages in Tehran between 1987-1997 time periods used to live in Tehran province in 1987, whereas they have been considered as a resident of rural places in 1997 census. In the same time period nearly, about 101825 people have emigrated from other provincial cities to rural areas of Tehran.

**Table 2**

**The number of immigrants to rural areas of Tehran province during 1987-1997**

Origin of Migration	Male	Female	Total
Cities of Tehran province	186981	175362	362343
Other provincial cities	243907	220261	464168

*Statistical Source: SCI, 1997.*

It's argued that Immigration rate from Tehran to The villages including Rudbar Ghasran with an abnormal growth rate is an indication of counter-urbanization.

### **Counter-urbanization and economic changes**

The formation and expansion of new functions along with development of new rural-urban relations and metropolitan sphere of influences have led to a change in land use patterns as well as a decline in agriculture. Based on the results of 2004 agricultural census, 559 hectare of recorded land area in 1994 census has shrunk to 143 hectares. The same is true with regard to orchards in which its total area has declined from 6121 hectares to 682. Furthermore, the total farmlands have declined from 1242 hectares to 764 during the period of 1994-2004 time periods. This decrease holds true for cattle breeding sector as well. The number of livestock (sheep and goat) of the area has deceased from 36730 to 26788 between 1978-2004 time period. However, the number of cows and calves has drastically decreased from 1029 to 44 in the same time.

**Table 3**

#### **Changes in the area of Rudbar Ghasran's orchards and farmland (hectare)**

<b>Description</b>	<b>1994</b>	<b>2004</b>
Farmlands	559	143
Orchards	683	621
Total	1242	764

*Statistical Source: SCI, 1994-2004.*

**Table 4**

#### **livestock changes in Rudbar Ghasran during 1987-2004(hectare)**

<b>Description</b>	<b>1987</b>	<b>2004</b>
Sheep and goat	36730	26788
Cow and calf	1029	44
Total sum	37759	27325

*Statistical Source: SCI, 1987-2004.*

The recession and decline of agricultural sector in Rudbar Ghasran has coincided with the development of industrial and service sectors in the area.

Up to 2004, there have been about 185 industrial workshops at this area, out of which 102 were involved in lathing. Lathing workshops have a total sum of 293 employees (an average 2.9 person per unit).



There were only 30 lathing workshops in 1995. The first workshops moved from Tehran. Others were quickly spread to the villages of the area namely to Ahar Village. In short, the increase of industrial units from 81 in 1995 to 185 units in 2004 is another indication of functional changes of the area.

The expansion of service sector during last decade is another indication of functional changes of the area. The number of service units has been 821 in 2002 most of which were involved in tourism activities (table 5). The number of hotels and restaurants has increased from 51 in 1994 to 82 in 2002. There has also been a boost in the number of wholesale, retail and home appliances goods shops. They have increased from 294 in 1994 to 389 in 2002.

**Table 5**  
**Number of Service Centers of Rudbar Ghasran in 2002**

Types of Services	Total	Urban	Rural
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and home appliances shops	389	255	134
Hotels and restaurants	82	26	56
Transport, storage and communications	34	14	20
Financial brokers	12	11	1
Real estate, renting and business activities	98	53	45
Public administration and defense sector	22	14	8
Education services	30	17	13
Health and social work services	25	15	10
Other community, social and personal activities	129	39	90
Total	821	444	377

*Statistical Source: SCI, 2002.*

### **Counter-urbanization and Expansion of Second Home Tourism**

The expansion of recreational functions in the form of second homes is considered as the most important functional change of Rudbar Ghasran. This area due to its specific ecological conditions is an attractive spot for tourism and recreational activities. High level of Tehran's environmental pollution and the shortage of suitable recreational facilities in Tehran have intensified this trend. Therefore, the recent physical expansion of Tehran and its increasing environmental pollutions have increased the need for development of recreational centers for the residents of this metropolitan city. As a result, the number of second homes has increased from 1050 in 1988 to 3162, 10540 in 1998 and 2002 respectively (Salehi Nasab, 2005). Taking into account the number of houses in 2002(14787), the ratio of second homes has been amounted to 71.28percent. The duration of stays in these houses range from 20 to 150 days with the average of 85 days.

**Table 6**

### Reasons Pertaining to Second Home Possession in Rudbar Ghasran

Reason	Frequency	Percentage
Leisure	36	30
To run away from pollution and urban problems	80	66.7
Others	4	3.3
Total	120	100

*Source:* Field works

### Consequences of Functional Changes

Functional changes at Rudbar Ghasran have been demonstrated in the form of second homes' expansion, the development of residential- dormitory functions, increase in industrial activities, extension of service sectors and reduction of agricultural and cattle breeding activities all of which have taken place without any effective planning or management. This mechanism has been totally automatic and self-governed, a fact which exemplified itself as the main cause of many undesirable consequences.

These changes are associated with the Tehran's environmental pollution level as well as demolition of its natural environment. The water pollution of Jajrood river due to unplanned construction activities and violation of river limits and fringes; the discharge of domestic and industrial wastes as well as disposal of garbage into river are some of these negative consequences to name just a few. Since this river via Latyan dam supplies about one third of Tehran's fresh water, its pollution can endanger the life of its citizens.

The unorganized and unplanned construction activities in the foothills, valleys and hills not only destruct the beauty of natural landscapes, but also have inflicted some damages upon the ranches, forest area. Furthermore, it can be regarded as the main cause of soil erosion. Recent landslides occurred in those villages are manifestation of these unorganized construction activities. The constant discharge of untreated wastes, chemicals, heavy metals, and other toxic materials into river has worsened water pollution. The lack of a sanitary land-fill and the use of seepage pits have made surface and underground water sources very polluted (Ghaemi, 1999).

The conversion of farmlands and orchards into residential, industrial, and commercial functions not only has demolished the natural beauty of the area, but also has lessened the agricultural products more specifically dairy and livestock products. These functional changes have had a great impact upon the occurrence of natural disasters such as floods and landslide. Moreover, the sudden increase in land and house prices has boosted land speculation. This in turn, has led to a more conversion of orchards and farmlands into villas and housing complexes. Taking into consideration the high price of houses, only 12 percent of the area has the priority number 1 & 2 for

development and the remaining lands are either unsuitable for expansion or have lost their potential for such functions (Jafari, 2001: 115).

## **Conclusion**

Unrestrained physical development and haphazard population growth of Tehran in the past few decades have intensified the rural-urban relations. It has led to some structural and functional changes in the suburbs as well. A particular rural-urban pattern developed in the area. This pattern well matches periphery model. These rural areas acts as "peripheral areas" for Tehran and according to the provision of water supply, wastes disposal, recreation, the residential functions and the installation of some service or industrial facilities are among.

This unorganized growth has created numerous problems including air pollution, traffic jam, sky-racketing house and cost of living, shortage of recreational activities to name just a few. Taking into account specific ecological, socio-economic conditions of its surrounding rural areas, these conditions have led to counter-urbanization or rural-urban migrations, a trend which is clearly represented by 1987-97 statistics. Temporary counter-urbanization in search of recreation is being taken place by affluent during summer times or weekends. Former villagers who migrate to cities are also responsible in this regard. This is group wishing to preserve their land properties and orchards thus, leave the city for some time and reside in their villages specifically during summer. In addition, permanent counter-urbanization is also being practiced by poor people who can not afford the high rent prices and thus have been forced to leave the city and move to villages.

Until 1997, Rudbar Ghasran was mainly a temporary refuge for Tehran residents to spend their free time. This trend led to the rapid growth of second homes in recent decades. In addition to recreational function, new functions including residential and industrial have also been sprang in the vicinities of this area. This has turned immigration into emigration and therefore speeding up counter-urbanization process. In short, counter-urbanization and rural-urban relations have created functional changes in the surrounding rural areas. These changes have been mainly in form of tourism, especially in the area of second homes, the development of industrial, residential functions and urban population growth in Rudbar Ghasran. Unfortunately, there has been no effective management governing these changes. As a result, these circumstances have led to some unpleasant consequences especially with regard to environmental and ecological issues. This could explain residential and industrial functions, demand huge number of people in which exerts a lot of pressure on the environment. However, taking into account its topographic peculiarities as well as limited ecological potential and its high degree of vulnerability, its rehabilitation measures should be given the highest priority. With the same token, the management

and planning of the tourism, recreational, residential, industrial and other socio-economic functions through the preparation and implementation of master development plans can pave the way for sustainable development of the area. To impose some control upon construction activities as well as industrial functions, can be regarded as a turning point in this regard.

### **Recommendations**

- Basically there is no effective recommendation regarding urban, residential and industrial development due to high population density and sensitive ecological conditions and environmental destruction of watershed
- Consider the fact that natural environment in this area possesses extraordinary tourism attractions, planned tourism activity, especially in protected areas, is highly recommended.
- Establishing a management system in this area using Environmental Impact Assessment (EIA) as tool is greatly appreciated.
- Coordination between the administrative centers and organizations, and also the establishment of a new institution to increase people participation (NGOs and other institutions for development and management of the area) is among the other welcomed recommendations.
- Last but not least, preparation and implosion of applied and strategic developmental plans and to conceive all relevant executive departments and organizations to follow these instructions is highly recommended.

### **References**

Copake, 1990 P.M., The urban field, amenity environments and local community development: some ideas on the economic survival of small communities in the city's countryside. In: F.W. Dykeman, Editor, *Entrepreneurial and Sustainable Rural Communities Rural and Small Town Studies Program*, Department of Geography, Mt. Allison University, Sackville, New Brunswick (1990), pp. 79–100.

Bunce, M. 1994, *the Countryside Ideal: Anglo-American Images of Landscape*, Rutledge, London.

Shuck smith, M., 1994, Shuck smith, Conceptualizing post-industrial rurality. In: J.M. Bryden, Editor, *Towards Sustainable Rural Communities: the Guelph Series*, University School of Rural Development and Planning, University of Guelph, Guelph, Ontario, pp. 125–132.

Fuguitt and Beale, 1996 G.V. Fuguitt and C.L. Beale, Recent trends in non-metropolitan migration: toward a new turnaround? *Growth and Change* **27**), pp. 156–174.

Frey, W.H. 1993, The new urban revival in the United States, *Urban Studies* **30**, pp. 741–744.

- Bryant, C.R. 1995, The role of local actors in transforming the urban fringe, *Journal of Rural Studies* **11**, pp. 255–267.
- Dahms, F.A. 1995, 'Dying villages', 'counter - urbanization' and the urban field - a Canadian perspective. *Journal of Rural Studies* **11**, pp. 21–33.
- Warns, T. 1992, Temporal and spatial patterns of elderly migration. In: J. Stillwell, P. Rees and P. Boden, Editors, *Migration Processes and Patterns Vol. 2. Population Redistribution in the United Kingdom*, Belhaven Press, New York, pp. 248–270.
- Garreau, J. 1991, *Edge City: Life on the New Frontier*, Doubleday, Toronto.
- Wilson, P.A. 1995, Embracing locality in local economic development. *Urban Studies* **32**, pp. 645–658.
- SalehiNasab, Z., 2005, *Second Home Tourism and its effects on rural areas*, Thesis of MA Geography and rural planning, University of Tehran, Department of human geography.
- Saeedi, A. 1999. *Rural Geography*, SAMT Publisher, Tehran. IRAN.
- Lynch, k. 2005. *Rural - urban interaction in the developing World*, Rutledge, London and New York.
- SCI (Statistical Center of Iran) 1994, *Agriculture Census of Iran in years of 1994 and 2004*.
- SCI (Statistical Center of Iran). 1967-2004, *People and housing Census of Iran, 1967-2004*.
- SCI, (Statistical Center of Iran) 2002, *National workshop census, Shemiranat*.
- Jaafari, H., 2001. The systematic application of degradation model for assessment of development effects on Latyan Dam watershed, *Journal of Environmental studies*, No. 27, PP. 45-53, Institute of Environment, University of Tehran.
- Ghaemi, A. 1999. *Pollutant Factors of Jajrud River*, Thesis of MA Environmental Planning, Faculty of Environment, University of Tehran.

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