



Requirements and Policies for Managing Villages in Tehran Metropolitan Area

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Abstract

Due to the spatial proximity to and spatial-physical dependence on cities, the villages of the cities have many facilities, constraints, opportunities and challenges that are not so extreme in other villages. The main objective of this research is to identify the features of villages located in the metropolitan areas of Iran and provide strategies for managing the problems and challenges of these villages, with emphasis on the villages of Tehran Metropolitan Area. The most important policy recommendations presented in this study are: considering an efficient public transportation system for servicing these villages; a strategic look of the municipality's collection on the issue of employment of people in the city villages which are increasingly migrating into Tehran to provide their livelihoods; the issue of green space in the metropolitan villages and their perspective, which is directly available to the villagers, but the municipality of Tehran can take steps in order to improve the indices related to green space and rural landscape in city areas by adopting due measures; Development of an intermediate facility in Tehran with the aim of preventing the city from spreading to the surrounding area and the villages therein; and finally, regionalism's strategy as the most reasonable, operational and efficient management strategy for investigating and managing the challenges of Tehran metropolitan area villages.

Keywords: Urban Boundary; Rural Management; Pathology; Tehran Metropolitan Area.

1. Introduction

Due to their spatial proximity and spatial-physical dependence, the villages of cities have various facilities, constraints, opportunities and challenges that are not such extreme in other villages. Establishing a city around another city and utilizing the appropriate communication networks make it possible for these villages to use the infrastructure and urban services, especially in the economic and socio-economic fields.

Job opportunities, in the service sector, have provided a source of income and work for villagers in Tehran metropolitan villages, a group of which have found a dormitory function. In the villages of the urban area as the most important immigrant settlement, influenced by the physical expansion of the city, the agricultural lands have found commercial value, where the market for buying and selling agricultural land and turning it into residential, service and workshops lands is flourishing. Meanwhile, in addition to the fact that the village's body undergoes a change in function and nature, it gradually develops into a category of huge income owners, which is a factor in the intensification and prosperity of the land market in the village. Currently, the areas around cities have been experiencing major challenges

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in terms of environmental, social, economic and planning issues, in particular the site location for the development of residential units, green belt, waste disposal, access to healthful drinking water, and pressure on natural resources [40].

These villages are confronted with a variety of problems. Therefore, it is important to evaluate these problems in order to create integrated regional management, which has a special importance and priority in metropolitan areas. Particularly, the lack of collaboration and coordination of rural and urban management in these villages and the areas around them has caused overlaps against managerial and political gaps, further complicating these problems. But the noteworthy point regarding the definition and recognition of villages in the boundaries of urban areas, especially metropolitan areas, is that the urban realm area, which we will evaluate its features further in this study, that is a vast area of the city which, due to the features of the city, can be radius several dozen kilometers while urban boundary involves only part of this range, and so, all features of the urban realm spaces can be seen in the urban boundary of the villages. Definitely, some features of these spaces are observed with more intensity in urban areas, in other words, these features exist in their strongest and most effective state. With this detailed accounts, the main objective of this research is to identify the features of the villages located in Iran's metropolitan areas and provide strategies for managing the problems and challenges of these villages with emphasis on the villages of Tehran metropolitan area. Growth of population and activity in the area of Tehran metropolis is infinitely continuing and the decline in the number of settlements and centers of activity at some periods does not mean emigration, the decline of population centers and the stagnation of the centers of activity. Rather because of the expansion of the area of the Tehran metropolis, it means the phenomenon of early urbanization of rural areas, their integration and the alteration of their statistical boundaries in the censuses. In this way, the development of the new-founded city areas with a lot of problems is not unexpected.

Study of the experiences of other countries suggest that ensuring the proper functioning of urban territories, both in form of green belts and in the form of construction control areas (the two main types of urban boundary in other countries) requires provision of legal and institutional support; development of innovative, voluntary and informal methods in the management of urban boundary, education and research, and informing the importance ground and the function of the urban boundary, and formation of a credible level of national, regional and local to protect and promote urban boundary.

The questions of interest in this research are: What is the most important feature of the villages located in the cities and metropolises? What are the factors affecting the transformation of metropolitan areas? What is the main damage to the management of metropolitan areas? What are the most important policy recommendations for managing damages incurred to metropolitan areas?

2. Literature Review

The rapid growth of urbanization in developing countries has caused their villages to be under the attack by urbanization invasion, and the lives of the inhabitants of the cities and margins have been influenced by that, making complex challenges for urban planners [5]. The urban–rural fringe has attracted a lot of studies on spatial planning [1], livelihood vulnerability [16], and conflict [36], because of its combination of urban and rural attributes [3, 41, 42]. While on the fringe, most studies have focused on the transformation and change of the urban and peri urban villages, in function of the urban village [37, 43], land development [22, 32], and the reformation of the management system [21, 24], few studies have attempted to shed light on the study of urban boundary in this area.

The findings in the African continent including in Nigeria [11], Zambia [39], Kenya [31], and Botswana [35], the South American continent including Peru and Brazil [10], Bolivia [40], Costa Rica [20] and in Asia including Nepal [29], Pakistan [34], Indonesia [14], Jakarta, Manila and Bangkok [30], and Saudi Arabia [28] suggest that the rapid growth of cities is a major challenge for urban areas and the integration of rural areas around cities has led to consequences which have not been positive for rural areas around cities. Therefore, the rapid growth of urbanization on the one hand, and the lack of proper policies and unsuitable urban design on the other hand, with other cultural, social and political factors, have caused deformation and irregular development of the metropolitan areas. “There is no doubt across all countries in the world that there has been migration of people from the countryside into the cities. As a result, the development capacity of villages has fallen and threatened their sustainability and resilience. So it is of great theoretical value and practical significance to study relevant land use policies and mechanisms which may help adaptations to the transformation of socio-economic development and strategic change. A rural revitalization is also needed to counter urbanization across the globe” [25].

Zhu et al (2018) states that Industrial development and intensive usage of urban land, revitalized stock construction land and reshaped the morphology of the peri urban rural areas. Urban industries on the one hand and rural governments from other hand, each took what they needed and promoted the rural industrial development and land use transition [45].

Yan et al study “suggests a framework to analyze the formation of the urban–rural mixed community and finds that the community is similar to a cell with urban and rural elements”. Their analysis shows that the urban–rural mixed community can be regarded as a unit in achieving urban–rural integration. “The inner elements of an urban–rural cell

can help provide a suitable concept and design for analyzing the formation and composition of the urban–rural mixed community and propose an applicable way to determine the law for effective land element optimization and urban–rural integration” [44].

Tang et al suggest that “Hong Kong green belt is a transition zone rather than a zone for conservation. In the statutory land-use plans, it covers the residual or ‘leftover’ pieces of land waiting for timely and permanent ‘urban’ development of some sorts. The planning authority lacks both resources and determination to sustain and manage the green belt for the purposes of conservation and recreation. It appears that the planning authority was well aware of the vulnerability of leaving the green belt as a stand-alone land use feature and was thus in favor of having it ‘integrated’ as part of a permanent ‘urban’ development” [38]. “The functions of the green belt were further weakened when a new land-use zone with a more determined policy orientation towards conservation, called ‘Conservation Area’, was implemented and when a new policy was announced for the approval of village house development” [46].

“Despite the green belt’s success at conserving open space, it has been criticized in recent years. Firstly, the London green belt’s proscription on development is linked to a chronic shortage of housing in the South–East, one of Europe’s most economically buoyant areas. London’s green belt has been criticized for being outdated. For example, studies have revealed that the ecological and amenity value of wasteland inside the city can often be higher than the farmland and golf courses preserved by the green belt” [9]. “Yet, the wasteland does not enjoy the same level of protection. In fact, the green belt may cause such brownfield sites of higher ecological value to be developed sooner by turning the development pressure inwards towards the urban areas “[4]”. “London’s green belt fails to achieve a compact city. At the local level the green belt is effective at limiting development in the urban fringe” [2, 15].” Such development has been linked to longer car journeys between villages, cities and also regionally [8].

3. Urban Boundary and the Requirements of the Villages

The concept of urban area refers to a region in which rural and urban development processes combine and interact with each other. This area is not tangible and recognizable; it is an ambiguous territory created by a combination of phenomena and forms developed by activities in the urban area. The urban area development is the inevitable result of the urbanization phenomenon. Evaluating the concepts related to urban boundary shows two examples that are very close to the legal concept and urban boundary planning (rather than its scientific and geographic concept). These two concepts are: the concept of the green belt used in Britain and several European and American countries, and another in the area of Exercising Transatlantic Power in US Cities. The Green Belt, which was required by the British and Urban Planning Act of 1974 in all British cities, especially large cities, is the range that has been set for the peripherally immediate cities, and after approval, which was backed up by a large number of votes, there is no permission for any development. The green belt is an area for preventing the continuous and horizontal development of the city and the integration of small and large cities into the central city. Another close example is the definition of peripheral urban areas that are known as areas of Exercise Transatlantic power in a number of US states. In this action, which is more similar to the current situation of Iranian cities, the Central City Municipality defines the areas in the immediate zones of the municipality, where the special zoning regulations for land use will be applied by the central city municipality. The central city municipality does not have a duty to provide services in these areas but it can control the extent of development of zoning regulations in those areas. The scope of this urban boundary is directly related to the influence of the central city and its population. This strategy does not apply to cities with tangent areas adjacent to other local governmental domains. The urban boundary of the city represents a wide range of urban halo or metropolitan areas in which the central city has no obligation to providing services. However, with the development of rules and regulations, it can control the development and construction in this area. Indeed, the urban boundaries are determined for two reasons: for the continuous expansion of the city and for preventing the continual expansion of the city. These two are opposite with each other and at the time of drawing up a plan, the planners specify which areas are for city expansion and which areas are prohibited until the next construction period.

Based on a systematic approach to urban boundary, the most important sub-systems effective in determining the size and the land specified for the urban are is divided into the following categories: Economic factors: urban-based economy, future policymaking, land ownership, municipality revenue, land price, housing costs, costs related to transport. Demographic, social and cultural factors: size of population and its characteristics (population growth, migration pattern, age and sex structure), urban mobility (migration, displacement and separation). Natural factors (environmental): Climate (wind, rainfall, etc.), natural disasters (mountain, river and jungle), environmental threats (faults, flood areas and mountain slopes), topography (peaks and troughs as well as landslide). Physical factors: transportation network and access system, city division and performance system, urban services and distribution of facilities, their spatial distribution, housing system and city form, land talent and land use system. Laws, regulations, plans and designs of agencies and organizations [14].

4. The Problems of the Urban Boundary of Iran' Metropolises

As mentioned above, the villages of metropolitan areas are involved in numerous problems of different nature and origin. Here, we will evaluate the most important of these problems.

4.1. Environmental and Physical-Infrastructural Problems

Currently, the problem of green space is one of the most important plights of the villages of metropolitan areas. The Iran's villages have long been dependent on the agricultural sector and naturally have many green spaces. Therefore, the issue of the green space has not been serious. However, due to processes such as urbanism, today the village has a different physical space than before. In particular, since the villages of cities' urban boundary have experienced the conversion of agricultural lands and gardens to non-agricultural uses, they are in short supply of per capita green spaces in agriculture. Additionally, these villages require special spaces for children's playgrounds because of their large population. Also, the area is used by the elderly of the village for relaxation, as many of these villages are in the immediate vicinity of the main roads, where the noise and congestion caused by the traffic of vehicles affect people psychologically. According to the results of Khorasani' research [18], the situation of green spaces in the villages of Tehran metropolis is undesirable. The reason is neglecting the importance of forming these spaces in villages with the characteristics of urban periphery, as well as their dire need for other villages in spite of the green and open spaces in the rural constructor plan. The constant change without land use applications is another challenge for the villages of metropolitan areas, which are the place of conflict between different and conflicting users.

In the meantime, agricultural use has undergone changes due to its low added value, which is made by the owner not only once but over time and with great difficulty. The agricultural use has been trapped in in the ups and downs of stock exchange. In the meantime, without consideration of environmental considerations such as the landscape and the rural landscape, they change into more profitable uses such as industrial and commercial uses. Undoubtedly, one of the most important factors influencing the extent of the lack of space in these villages is their unfavorable natural and artificial visual landscape [18]. Given the plurality of villages located in the protected area of Tehran, the control of urban boundary in these areas has been found to be excluded from the responsibility of Tehran's municipality and relegated to the villager institution, which usually does not have the proper mechanisms in this regard. On the other hand, due to the severe control of constructions in the urban areas of Tehran and applying criteria and measures for urban planning, a kind of balanced construction emerges with Tehran's context. However, in villages located in Tehran's urban boundary, different and heterogeneous structures have emerged with a dramatic rate due to the weak technical and engineering factors and the inadequacy required in monitoring and controlling them.

Meanwhile, another point that has somewhat affected people's satisfaction in these villages is the lack of access to vehicles at various hours of the day, causing occasional difficulties for especially women and students. The lack of a bus station and, indeed, the lack of bus services to these villages and the impossibility of access to cheaper bus services have also somewhat affected people's satisfaction. Moreover, the availability of means of transportation in this country has not been satisfactory.

4.2. Demographic and Social Problems

Studies suggest that even if the population growth drops from the current 2.6% to 4% in the horizon of 1,410, the population located in the urban boundary will reach 1038,962 people. This means an increase in the population of about 514710 people in the next twenty years. This population will require 10294 hectares of physical space, assuming a gross per capita of 200 m. This would mean fall of the spatial values of urban boundary, the infrastructure of agricultural land, environmental pollution, and endangering the life of the capital and its urban boundary.

The most-favored villages are in terms of services for villages with larger populations, i.e. those with a higher immigration rate and, as a result, more population growth. Hence, they have more services. But the same colonial environment has led to a decline in the level of livability in these villages. In particular, increasing the number of services to these villages has not been able to increase their viability. In this regard, in the design of Tehran's urban complex, in a survey on 450 passengers of public vehicles, this question was asked: Do you know who does not go to school due to the distance and difficulty of commuting? The response of 360 out of 450 people was negative to this question. This response was expectable, as greater development is performed around villages and for their educational and service facilities. Nevertheless, 90 respondents knew 704 people who did not go to school for this, which means that on average, everyone knew 7.8 people who did not go to school because of distance. Of these, 545 were girls, since families more often allow their sons to walk on a long path or use unknown vehicles for going round, but do not give such permission to their daughters [14].

The poor sense of belonging to the location is another social issue in these villages. Although in spite of many other villages, these villages welcome immigrants and immigration rates from them are very low, but they are weak in their sense of belonging to the location. The presence of immigrants from different ethnic, languages, races and sometimes

religions has led to formation of heterogeneous and even contradictory combinations, providing an appropriate context for a variety of abnormalities. These conditions become more complicated when, for some reason, their immigration goals are not met. As a result, no sense of belonging will be developed in the emigrants [13]. Security is considered as the Achilles' heel of many villages of metropolitan areas. According to local people, delinquency is very common in these villages as well as in the access roads to the surrounding cities and villages. More seriously, bullying and theft as well as distribution of narcotics have become commonplace events for them.

Further, in addition to the abnormalities that are common due to the current conditions of these villages and has jeopardized personal and social security, the fact that most people living in these villages are poor people of the community and are engaged in activities causing burnout and fatigue for them also reduces their threshold of tolerance and creates unwanted conflicts among them. The cultural weakness in these villages and among the different classes of people living in them also exacerbates this situation and causes everyday reduction in the security of these rural settlements [18].

4.3. Economic Problems

Due to their special geographic location, metropolitan villages have a range of economic benefits, one of which is the easier and cheaper access to the urban labor market because of its lower distance to the city than other villages. Therefore, naturally, these villages will have a greater variety of jobs, and this diversity and plurality will be greater as their interaction with the city is more diverse and their affectability by the city is higher. Also, their neighboring city has a greater influence and a more dynamic economy. The villages studied in this study are no exception to this rule and have a marked diversity of economic activities. This is, on the one hand, due to their proximity to the cities of the region, and, on the other hand, one should not ignore the proximity of the region to Tehran's metropolitan area and access to its vast labor market. The sum of these conditions has led to an average level of employment and income index in these villages.

Meanwhile, what has affected the employment situation in these villages in the region of Tehran is the issue of the liberalization of the price of energy carriers and its effect on the cost of transportation, especially for access to Tehran. The findings of Khorasani [18] in these villages suggest that many people who had previously worked in the labor market in Tehran were not satisfied with the current situation, and were seriously skeptical about the cost-effectiveness of working in Tehran and living in a rural location at a distance sometimes reaching a few dozen kilometers away from Tehran.

In the Tehran metropolitan area, low-income people spend about 30% of their daily income for commuting. In the wealthiest countries, the proportion of the cost of transportation to income grows with increased incomes. That is, with increased income, people spend a larger portion of their income for transportation, because there is a wide selection to choose from and more prosperous people can use the best vehicles for transportation, and low-income people spend about 5% of their income for relocation with the use of public vehicles [19].

4.4. Administrative and Institutional Problems

It seems that the spatial development in metropolitan areas is influenced by three forces that directly affect its formation: 1- Central government entities that are responsible for infrastructure services (as well as protective institutions such as the environmental protection Organization) 2- Wisdom-national governmental territories such as municipalities, governor and sheriffs. 3- General territories, such as municipalities and village governors. The development of the metropolitan area halo is the force of these three existing and active government entities in the management structure of the land, which is considered as the basis of the space organization in the country [33].

Authorization in urban areas, especially in cities adjacent to metropolises, has led to increased managerial separation within the city, where the current chaotic situation in controlling construction in the area will deteriorate. Generally, village governors located in urban areas lack the technical-specialized ability and the human resources needed to manage rural development in urban areas with extreme attractions. Granting this authorization to the mentioned village-governors happens while they basically lack the capacity to maintain the strategic interests of developing metropolitan areas.

The law involving incorporation of one paragraph and three notes to Article 99 of the Municipality Law about the reform of the urban boundary of Tehran has practically placed Tehran's urban boundary zone under multiple administrations and has removed it from the scope of integrated and coherent management and control. With the creation of several cities in the city of Tehran, a total of more than 500 square kilometers has been allocated to the territory of Tehran. In this way, the southern territory of Tehran has been disrupted. The cities of Chardangeh, Lavasan, Eslamshahr, Karaj, Shahriari, Pakdasht, Baqaershahr, and Shahre Qods along with the urban boundary of these cities are within the range that has been extracted from Tehran's territory. While in many cities of the country the average proportion of the extent of urban boundary to the city range is more than ten times, this ratio has fallen to less than 3 times in Tehran. Meanwhile, there is no urban boundary on the areas of the city. According to the recent law, if the territory of Tehran is limited to the territory of the city, Tehran will lose not only the urban boundary but also part of its legal area. Political

administrative divisions in Tehran province are currently more disproportionate to the existing physical structure of Tehran's urban area [18].

5. Policy suggestions

The study of global experiences suggests that it is logically possible to have two completely opposite policies or functions on either side of a spectrum of the metropolitan urban boundary: 1- A complete foreclosure policy from development followed by European or American examples by creating physical realms (Green halo) and 2- A complete freedom policy to expand this range. The green belt pattern is a policy of limiting and preventing the development of an urban development on the same side of this spectrum.

Definitely, it should be noted that the purpose of preventing development here is residential development, as, for example, considering urban conditions such as those of London and its needs and necessities, this range can be used for some types of non-residential development that are necessary for the sustainability of the city. The sample of the other pattern is more of an ideal model and can be found in fewer places. Nevertheless, a form of that which considers the urban boundary as a reserve for future development, can be found in the United States, though the urban boundary model in Iran is based on this American perception rather than the English.

Considering the not so desirable situation of the villages of Tehran metropolitan area on the one hand, and taking the direct and indirect effects of the situation and conditions of these villages into account on not only the area of Tehran's urban boundary, but also on the urban area of Tehran, enough attention should be paid to development of these villages and improving their quality of life. We will evaluate some policy recommendations for managing the status quo.

Considering the existing macro policies available in the plans related to the urban boundary area of Tehran. The approved document of the Tehran Strategic-Structural Plan (Comprehensive) (approved by the Supreme Council for Urbanism and Architecture of Iran on 5/9/2007), Tehran, the capital of Iran, has been specifically mentioned as a "Metropolis", where the entire Tehran metropolitan area has been viewed as a correlated whole. In order to achieve the great goals of the city's development prospect, the following strategies are presented. Contemplation on them highlights the necessity for spatial integration in the Tehran metropolitan area:

- Organizing and protecting the area and preventing any expansion of the city (preventing the expansion of Tehran's metropolis and limiting residential construction in the vicinity of the city area).
- Organizing and protecting the capital's territory (the necessity of applying harmonized rules and regulations for all population centers and activity located in the area).
- Promoting Tehran's role and position at transnational, national and regional levels (Integrated organizing of Tehran's urban complex with a multi-centered model to decentralize and reduce the dependence of peripheral settlements in Tehran).
- Environmental protection (ensuring the sustainability of protected areas, preserving gardens and agricultural land and developing green spaces within the area).
- Providing needed water and developing and equipping Tehran's water and wastewater network, and organizing the urban boundary of the bed of the rivers and canals.
- Development of green, public, recreational and touristic spaces.
- Securing the city of Tehran from natural disasters (earthquakes, floods ...) (Tehran Comprehensive Plan document, 2007: 11-2).

It is clear that the realization of these goals will only be possible with full attention to the situation of villages located in the metropolitan area, though by considering the legal constraints arising from separating the process of planning the villages from the integrated management process of the metropolitan area. So:

The efficient public transportation system for providing services to these villages is considered a necessity for the municipality of Tehran. Studies have suggested that 50% of the residents of Tehran's villages spend more than 3 hours daily and 15% of their poorest spend more than 4.5 hours commuting from workplace. Transportation costs account for about 30% of the household income. Low-income people need more work than others, but on the one hand, their income is low, and on the other hand, commuting costs for their job are too high compared to their income. Because of this reason, many people in the household are not looking for work. In a survey conducted in 1996, 450 people who had been traveling with the public transport were asked: Do you know someone who does not go for work due to huge costs of commuting. The results showed that 227 people did not know anyone (50%) and 223 people (49.5%) knew 874 people who did not work because of this [19].

The issue of the employment of people living in the villages who are constantly and increasingly entering Tehran for subsistence requires a strategic look by the municipality complex. Establishing appropriate job opportunities, by

considering the legal constraints stipulated for establishing centers of activity in the Tehran metropolitan area, has a high priority in organizing the economic situation of the residents of these villages and preventing them from commuting to Tehran more than before to find job opportunities. What adds to the importance of the issue of employment and income in these villages is the issue of being colonist and being low-income. A large number of households in these villages are migrants who have come to Tehran from the far and near distances to find a job and gain a high income, and have selected the villages under study as their habitats. Obviously, if access to the labor market of Tehran is difficult, the purpose of their migration will be tarnished and will have a devastating psychological effect on them. In addition, the lack of employment or poor income in these households has led to the formation of various types of abnormalities that have caused a profound effect on other indicators of viability in the villages under study [18].

“Green Belts are the first article of the planning creed. They are hallowed by use, popular support, and fears of what would happen if they were weakened” [7]. Gant et al state that multi-functionality and change within Green Belts in recent years have been various calls for reforming [see 12]. The issue of green space of metropolitan villages and their viewpoints are among the issues that are directly accessible to the villagers, but the municipality of Tehran can take step in order to improve the indices related to green space and rural landscape in the urban boundary. Legislative rules are needed to change the pattern of cultivation in all agricultural lands within the urban boundaries so that all lands around the city and leading to the villages of metropolis, are run as gardens by their owners. Also, regarding the agricultural lands located in this complex, situated outside of the city areas, the incentive mechanisms should also be considered to comply with such a cultivation pattern. The Tehran Urban Complex Plan emphasizes that through the use of the strategy of changing the cultivation pattern, not only one can gain the environmental benefits of the urban green space of such lands, but also the problem of the use of contaminated wastewater in some of the crops in the area such as the vegetable plantations in south of Tehran will be resolved to a great extent. Therefore, in the agricultural area covering the zone between Tehran’s city proper and the second belt, in addition to preserving agricultural activities and preventing the development of population centers and activities, it is recommended to change the pattern of cultivation towards gardening as much as possible, which will significantly help to reduce the environmental problems of Tehran and the region (with the gradual creation of green belts) in addition to protecting agricultural land of this region. Beyond the agricultural lands protected by the urban areas of the Tehran city complex, large agricultural areas outside of the urban areas, in the south and west of this complex, should be protected and prevented from urban development within them.

Another policy recommendation to improve the situation of the villages located in urban boundary is the development of an intermediate facility in Tehran with the aim of preventing the city from spreading to the urban boundary of its villages. Physically, the form of urban development in Tehran has provided a great capacity for the intermediate facility of this city. The physical organization of the city, or the figure of the city, is defined as a whole based on the arrangement between the two main elements of the urban figure. In this regard, the most important areas of physical background, which are guided by the criteria for the control of the macro level of urban design programs, are related to the volumetric pattern of the city and the mass volume in the densities, the mass-to-space ratio, the status of the visual corridors, and the urban landscape. The situation of mass and space and the proportion of full and empty texture in different parts of Tehran are very different. The city's spatial structure, which extends far beyond the physical organization, not only delineates between full and empty spaces, but also defines the relationship between them.

With these explanations, the target lands in an intermediate facility of development plan can be identified in the two following:

Renovation storage: renovation storage lands or public service storage lands are large inland parts of the city which are identified in the comprehensive plan. These areas currently have applications such as garrison, large scale industries or airports, but in the perspective of the comprehensive plan of Tehran, they can be planned to provide urban services, especially for areas with deficit in the levels and per capita of services (such as worn out textures).

1.1. Worn-out urban textures: The worn-out texture of Tehran covers a large number of Tehran's areas, most of which include old buildings and, consequently, with a low number of floors. Currently, the municipality of Tehran, and in particular the Tehran City Renovation Organization, seeks to provide the field of renovation of these textures by encouraging citizens to combine fine-grained units. This encouragement is done through tools such as offering an incentive density floor. In other words, the worn-out textures of the city of Tehran are developing vertically. Part of the physical development that is occurred in the past around Tehran has gradually been transferred to the city center today. Construction trends and statistics of construction licenses in these areas indicate that these areas will play an important role in the development of intermediate facility development in Tehran [13].

The next challenge, which is necessary to be addressed by the municipality of Tehran, is the issue of managing the villages located in the area and how to interact with them. In this context, regionalism's strategy will be the most logical, operational, and efficient strategy. All regionalization strategies seek to establish coordinated structures and cooperation between the components of fragmented and independent policies, decision making and implementation in the metropolitan area to reduce the effects of misunderstandings and the various decision-making and implementing factors that are effective on them. In this way, policy making and coordinated regional action can become possible [14]. Political

fragmentation intensifies the inequality of the periphery center in the metropolitan region. On the other hand, regionalism reduces social inequalities (racial and income segregation) and benefiting from public services between the central city and peripheral residential areas (cities and villages in the urban and rural halo).

Political fragmentation reduces the effectiveness of spatial development services and policy making in the region. This will be evident especially in services and policies whose effectiveness will require the co-ordination of all the effective elements in the region and, in terms of nature, cover the existing political boundaries. In providing services such as controlling climate pollution or preventing the penetration of urban development in the city side villages and protecting the environment, metropolitan regionalization through the establishment of policy and decision-making framework in the region that all areas are committed to implementing that, can improve the effectiveness of the policy and service provision in the above sections [14].

Regarding regionalism periphery and the challenges of the city-regions, the issue of political fragmentation is of great importance in the management of metropolitan areas. Political fragmentation means the existence of a large number of independent government and management territories in the city-region area, such as the metropolitan area. That is, any government or local management territory has the right, authority, and competence to comment on part of the territory of the region, and there is no unified government authority for decision-making and practice in the entire area of the region. Therefore, regionalism will be in the interests of the region to coordinate and plan for coherent management of the government and territories in the urban boundary, including the municipality of central city in relation to metropolises, rural municipalities, bailiffs and governorships.

6. Conclusion

Recent rapid urban sprawl has resulted in vast and deep rural restructuring as well as the industrial reorganization of rural areas [23, 26, and 43]. Morphology of the rural settlements has experienced a lot of changes [6]. However, peri urban villages gradually attracted a great number of emigrants and created the phenomena as urban villages [17, 27].

In the last half century, along with a remarkable migration from village to city, some villages have become self-admitting immigrants. With the relative expansion of the intercity transport network, many urban workers and poor people are living in these areas. Indeed, these are people who have been living in the city for their aspirations, and now they have been inevitably deployed in a different village. Along with the increase in the population of the final destination, rural characteristics are combined with their attitudes about life in the city. The main nature of rural areas of the city periphery can be summarized in the two following seemingly opposite, but interconnected points:

- Lack of urban values and facilities, such as lack of proper infrastructure, services, regulations, etc.
- Declining rural values and criteria, such as high land prices, fertile soil shortages, co-operation, and social cohesion and so on [13].

The existence of populated rural areas has made it necessary to plan and control the urban boundary of these areas. With regard to the growing trend of the population and the integration of settlements in each other, the ground for formation of new urban centers in the urban boundary level and by the same villages is predictable. The existence of dozens of villages with a population of 2,500 people within the boundaries of urban boundary increases the legal pressure to integrate in urban areas or to create new cities constantly.

The influence and expansion of urban and rural boundaries on immediate adjacent lands with agricultural potential, expansion of the city boundaries, and the interconnection and connectivity of neighborhoods requiring the influence of neighboring agricultural land are among the important structural challenges in the level of urban boundary. It has now been accepted that metropolitan areas are facing a number of procedural challenges, and municipalities and individual local government units lack the capacity and ability to manage these areas. The realization and success of any alternative (alternative) as a mechanism for managing and planning a metropolitan area depend on the establishment of mechanisms for integrated regional governance or adoption of a roadmap for the establishment of such mechanisms. Education, research, and information on the approach adopted in relation to the metropolitan area are a special necessity. Prior to any action, the grounds should be set for the perception of citizens, specialists, managers and all elements affecting the administration of the region. It is only through adequate understanding of the dimensions of the proposed scheme and mechanism that managers of the various units in the region (local, regional and national) will be willing to engage and collaborate to achieve an integrated regional perspective and outlook.

Urban boundary as the range of the future development of the city, services outside the service area and as a protection area of the city periphery. The current difficulty in managing urban boundary is that firstly they do not have the same management of the urban boundary mission. In this paper, we have shown that the multiplicity of decision-making centers has led to the destruction of valuable urban boundary spaces. Destruction will also continue if an urgent measure is not taken to establish a comprehensive management which monitors all activities in the area of urban boundary and its land uses. Comprehensive management in all affairs is not a substitute to departmental management (ministries,

institutions, governorship). However, planning the use of the urban boundary lands and monitoring its implementation in this area prevent the conflict of the actions of management with each other and, of course, the actions contrary to the main mission of urban boundary.

The real and necessary gap in relation to the metropolitan villages that has led to many challenges in these villages, is due to the lack of integrated management of the metropolitan region and lack of rural development plans regarding maximum utilization of land in agricultural and related industries, tourism, economy, production, etc. In other words, the custodians of these villages do not have a suitable program for the agricultural sector and related industries, tourism, and the like. In such a situation, approaches that are only targeted by the construction of a residential unit without requirement and adaptation to rural development plans can lead to transformation of production spaces into consumption spaces. Authorizing construction outside the villages and promoting this demand in the community psychologically with the aim of providing a second home for urbanisms is in some way based on this philosophy and vision, which is the main function of villages as areas with better nature, providing the necessary recreational space for the penthouses of the urbanisms. In this regard, the villages, especially in the suburbs of metropolises, have gradually lost their productive and economic performance and have become the home of the indigenous peoples of the elderly, the second home of some wealthy citizens and dormitories of the workforce of the cities.

The major regionalism theories of the damage associated with the metropolitan political concentration and diversity are categorized in five political areas (reduction of democracy and public participation), economy (reduction of servicing efficiency), development (reduction of economic competitiveness capability), planning and policy making (reducing the effectiveness of plans and programs) and social (reduction of economic and social equilibrium). It is argued that although free market forces are the driving forces of the emergence and the development of metropolitan areas and urban complexes, the future and capacity of metropolitan areas are dependent on institutional capacity and general governance; a capacity that is able to guide economic development rather than focusing on physical decentralization, establishing balance between the components of competitiveness, social livability and sustainability in the metropolitan area. The urban boundary of the city cannot be a place for the concentration and establishment of urban wastes and anti-urban uses such as polluting industries, wastewater refineries, urban waste disposal, etc. At the same time, it should not be the location for concentration of habitats and employment attracting focuses (basic jobs), and create an unhealthy managerial and economic climate for attracting development opportunities and eliminating disturbing factors. With regard to the above, the city's urban boundary should have the following characteristics:

- Respiratory halo and environmental filter of region settlements (Tehran, Villages, and Cities Inside and Outside of the urban boundary).
- Establishment and definition of independent physical identity of settlements and preventing their adherence to each other.
- A supplier space of the activities supporting social, economic, and environmental development of recreational spaces, spending leisure time and the like.
- Suburban living space for Tehran metropolitan area, along with spatial values appropriate to this kind of life.
- An area with potential and equitable economic and spatial values within the framework of considerations of spatial planning, land economics and real estate.
- Space under integrated management, free of stock exchange business and land traders and real estate [14].

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