



## The Feasibility of Establishing Walking and Recreation Trails in the Highlands of Suburb and Natural Resorts in the Mountains Surrounding the Forest Park of Lar City

Ahmad Saeednia<sup>1</sup>, Sahar Yadegar Fard<sup>2\*</sup>

<sup>1</sup>Assistant professor of Urban Planning Department, Kish International Campus of Tehran University, Tehran, Iran.

<sup>2</sup>Master of Urban Planning, Kish International Campus of Tehran University, Tehran, Iran.

---

### Abstract

**Introduction:** Due to the importance of leisure time in human lives, disregarding it brings a lot of damage and deflections. If leisure programs are selected with beneficial and healthy orientation, many of the people mental and physical disorders will treat and there will be individual and social creativity. The main objective of this research is to learn more about Lar Forest Park in order to boost tourism at the local level

**Method:** The method that is used in this study is descriptive- analytic and field study. In order to complete the information, understanding the present environmental and physical status, vision and perspective, biological-cultural status through observation, photography and questionnaires were done. In this research, Autocad software and also ID· sketchup 3D max software have been used for displaying the way and show its 3D display.

**Findings:** According to the findings of the theoretical basis and accomplish development project of Lar Forest Park this study was carried out with four steps of investigation and feasibility that includes zoning for feasibility of ecological - visual landscape features, feasibility of technical potential for locating the forestry sector and the establishment of tourism activities, analysis of questionnaire to determine people suggestions and provide suggestions and policy

**Conclusion:** With the construction of these resorts in city, due to their environmental and entertainment - recreation functions, important step can be done towards stability and balance of the natural environment and physical - cultural environment

**Keywords:** recreation, leisure, Lar Forest Park.

---

**Corresponding Author:** Sahar Yadegar Fard

### INTRODUCTION

With increasing the urban population, the change in the pattern of work and life and more distance from origin natural as a headquarters and substrate of providing peace of mind and spiritual in modern life, the need for recreation and leisure has increased among urban residents and has been became one of the most of their needs. Spend leisure time includes activities that person takes willingly for relaxation, walking, whether for fun or for spreading information, personal training or free social sharing or creativity, at a time regardless of employee, family and social engagement. To put it simply, leisure is activity that is selected for satisfactory qualities in relative freedom (Los Heywood et al, 2001). Today, following the persistence of rural-urban migration, population growth and urbanization, many cities of the country have expanding growth from different directions (vertical - horizontal) or are expanding. So that they provide reduction the per capita green space in urban and even damage and change of suburban green space landscape. Urban issues (such as green space) including matters that their full recognition and providing a definitive solution have associated with many problems and must be done with awareness and variety of solutions may be used. Because urban green space is requirements of healthy citizenship living so that in addition to the certain environmental values, it has a direct effect in city beautification and preservation of spiritual and physical health

of citizens, so the destruction of urban green space can be accounted an alarm for human society. Urban green space follows a valid environmental objectives. But the desired objectives can be achieved when the ability of green spaces be identified accurately. Parks and urban green spaces are effective terms in quality of urban space that the importance of them will be added by more expansion and condensation of cities. Urban recreation will improve the quality of urban environment and improvement of public welfare in terms of environmental, social and economic functions. As a result, their distribution in urban areas is important both for the urban dimension and social justice. In this regard, various strategies have been developed for optimal distribution of these spaces that emphasis largely on the centralized or distributed use or Mix of them (Irani Behbahani and etal, 2005).

For the importance of urban green space it can be said that today, the city climate has been changed by the effects of density processes in urban and activity concentration in cities, so that it is investigated in the urban region studies particularly and separate from regional climate regional climate.

The effects that are traced on urban ecology, especially in the fields of climate, air, soil, groundwater and animals by reducing urban green space are so severe that it completely transforms its constituent elements in urban environment (Sani and etal, 2011). Components of urban development effects can disrupt the life of cities in different ways. Suitable green space in cities

are contributing factor in reducing this effects, particularly for dust and air pollution, forest like green spaces are the breathing lungs of the cities.

The most important effect of green space in cities are moderating temperatures, increasing humidity, air condition and attracting dust. The effects of green space have the relative role in cities. In general, green spaces and their impact on cities is inevitable, so that cities don't remain sustainable (Saeednia, 2004). In this regard, entertainment complexes (Forest Park) at the entrance of Lar city with functional areas on a scale of 80 hectares and 1363 rich history in the collective memories of people, the social function of it in removal the leisure needs of residents has been faded because of carelessness and incorrect actions of management. Therefore this article attempts to revitalize this social role of space to formulate strategies with the help of SWOT analysis model, in order to create Walking trails and suburban recreational altitude according to dominant approach in theory and practical experience through field observations and assessment the user needs, and revitalize its main function as a prominent leisure space.

### Procedure

The method that is used in this study is descriptive- analytic and field study. At the first stage, the basic analysis of texts, articles and the Internet and library resources for precise definition of urban forest parks and principles and plans have been used. Then, in order to identify the characteristics of Forest Park (LAR), reasonable resources including maps, aerial photographs and outreach projects were investigated. In order to complete this information, understanding the present physical, vision, perspective and biological-cultural status were done through photography and questionnaires. People preference using statistical methods and evaluating ecological potential for locating predicted activities were done. Finally, with principles of conservation and development, strategic plan of Lar Forest Park and completing the questionnaires were done in spring and in two months, April and May.

Three days (two business dates and one holiday date) randomly selected each month to fill questionnaires. Referring to the field and having various maps, the park GPS tourist potential map was investigated in 1/5000 scale. And according to map the topography of the area was zoned (blot) and were numbered and with the help of GPS and ID coordinates in AutoCAD, X and Y points were identified and the lane were marked and proposal were applied on it. Map of routes and roads, inclinometer, compass and benchmark of the station of intensive recreation mapping in the park was identified and evaluated questionnaires in each of them were distributed randomly among those who simply want to walk to the park. The influence of environmental factors such as water resources, facilities, etc. in recreation use of different places of park were investigated in the questionnaire by asking questions such as visitors interests, the reasons for choosing Park, their aim to choose any part of the park and etc. Current use visitors from the park was determined according to the type of recreational activities. All parts of presented questionnaires were registered and the map was prepared. In this study Autocad software has been used and also for displaying the path and its three-dimensional display ID, sketchup, 3d max have been used.

### FINDINGS

The Lar Forest Park is located at the entrance to the city in Lar-Gerash road. Its area is about 80 hectares and it is limited to prayer houses and bathroom as welfare that its entrance has been paved and the rest of it is dirt road and also at the entrance to the park, in the first part, there are some cement platform to sit and rest and it has no quality for communication and facility. This area was transformed into a park in 1986. The area was

became protected environment since 1986. This city has established in areas with very low slope that this factor with hot and dry climate causes desirable orchards and farmland and also the proximity of the in north and forests in the south of city can be named as factors to city emersion. Due to the existence of effects in the entrance road of the city that with its gradual formation identify Natural Park and existence of mountains and hills has been changed Natural Park from uniformity and gives us excellent facilities for planning and design that is its strengths. Narrow and unsafe entrance to the site, lack of required usage and undefined poor access to the arid, progressive destruction of forest park and the absence of point to declare entrance of the city to confirm that the site is located at the entrance of the city is its weaknesses. Since the park is located at the entrance of the Lar city and the surrounding land is wasteland, the access and entrance to the park can be defined and entry routes in the forest park can be planned and designed according to point at the entrance of city. According to inclusion of effective factors in recreation by forming new information layers, maps of facilities, water sources, roads and park attraction recreation, corresponding maps were overlaid with first tourist potential map and final tourist potential map is obtained according to this factors. By doing work and comparison between the previous and the new map, impact and water supplier factor and facilities at the park were examined. Method is in accordance with 50 selection criteria of forest promenade in Forests and Rangelands Organization. According to this base, maximum distance of water resource from recreation area should not more than 300 meters. So with surrounding of park water resource (including water drinking area and bathroom) and other, by using ArcView software, recreational facilities that influence on recreation (such as entrance, places for camping, pavilions, buffets and etc. was considered at 300 meters distance and only some areas of intensive recreation that the maximum distance of them from factors were 300 meters were selected as final areas of intensive recreation. In analyzing the survey this result was concluded that outcomes achieved according to gender (male 53% and female 47%). Also in and part of recreational area, most of visitor people are married people. Most of visitors in the intensive recreation level are in the age group of 20 to 40 years old (50%). According to the study, in intensive recreation level, 59% of people have come to the park with their family. In Forest Park, most of people come to park with their own car (80%) and there are rare people who visit the park by public transportation. In the intensive recreation, visitors have announced the reason of choosing the area for walking 70%, climbing 10% and cycling 3%. Most of recreation visitors choose some places with more intensive features. According to the results, 47% of people prefer the park for walking. In the intensive recreation level, 65% of people choose walk due to health and safety and recreational facilities, 19% of people cycling due to the recreation and 16% of people water sources at the end of the park due to better air near to the water source and vegetation and near the foothills.

According to the results of the questionnaires, priority of using private cars, parking and public transportation policy require access to the park. Improvement in the design and organization of roads and access, furniture and revival of vegetation it is necessary. Providing tourism and leisure services is necessary for various age groups, family groups, friendship groups or individual in the appropriate spaces design, building walking trails and cycling. Due to the priority of selecting "city view", maintaining the best view in the city should be considered in development plan of park on the foothills. In choosing the largest ecological part of forest park, three main areas were

identified including 1, 2 and 3 zones which some examples of photos have been shown in Figure 1



Figure 1: Selected photos from the Lar Park zone for zoning, Source: author

First zone includes forest park that is the main entrance of site and paved paths. In this part of the walking path and roadway have not separated, and the most man-made elements is located there such as: buffet, a mosque, a concrete platform, trash, pool and restroom. The lighting system is located only in routes and forestry sector doesn't have lighting system. Lack of square design, materials, furniture and lighting with characteristics of forest sites decrease the quality. Existence of open and anonymous spaces, canals, and the unplanned routes makes anonymous Forest Park and the loss of spatial diversity in this sector. The second zone includes the exhibition and paved extensive surfaces with no forest cover and because of construction the temporary exhibition structures has high levels of disturbance. Walking paths from the northern section of site and dirt road connected to the third zone are the facilities of this. Wastelands of east side are the most important factors of development the playgrounds in Wasteland such as outdoor football pitch, swimming pool, multipurpose hall for sports and etc. The third zone includes the highest part of the park. It has the least construction, the most forested part and covered with native pastures and water resource is located in the upper part of the park that some parts of northern slopes are covered with

plant by natural resource organization and it has soil routes access. Top of the mountain includes flat section with a 360-degree view without any visual barrier, city landscapes, gardens, mountains and etc. Method of identifying water resources, facilities, access roads and tourist attractions of the park were carried out by identifying water source importance factors, facilities, access roads and tourist attractions of the park from recreational places and field studies, complete all the points related to GPS resource, their map associated with the presence in the field and using water sources and the facilities. Assessment of the ecological and aesthetic one, two and three zones includes two sections, natural and artificial effects that has investigated the structure of landform, vegetation, structures and facilities of zones. Score of each case is considered based on aesthetic criteria (diversity, clarity, consistency, harmony, composition, etc.) and ecological criteria (balance, coordination, biodiversity, sustainability, etc.) with the help of equivalent point from -3 to +3 in the zero code ( $\pm 0$ ). The average results from the list show overall assessment of each zone according to Table 1

Table 1: Evaluation of ecological characteristics of one and two zones (Source: author's conclusion and drafting)

number	Zone 1	Zone 2	Zone 3
point	0.32	-0.42	0.33
Intervention	The optimal ratio of protection and organizing construction structures	Adverse high changes in building materials, path and water supply system	The optimum ratio of Organizing and creating tourism features

Survey results indicate that one zone with average of 0/32 score and two zone with with average of 0.42 scores have the lowest score and also three zone has maximum score with an average of 33 score. In zone A, the buildings construction has the lowest score and the roadway has the highest score. In two zone, the lowest score is for watering system and buildings and the highest score has been allocated to grassland vegetation cover. In three zone, watering system and tourism facilities has the highest score and shape of the earth and grassland vegetation cover have the highest score

CONCLUSION

Table 2 shows Summary of problems and potentials of Lar Forest Park

Table 2: Summary of problems and potentials (Source: author's conclusion and drafting)

Background	Bottlenecks	Restriction	Threat	Abilities	possibility	opportunity
Lar Forest Park	1.The lack of equipment and facilities 2. lack of facilities 3. The lack of private sector investment 4. Lack of development budget 5. lack of recreational spaces suitable to the growing population in Lar 6. - lack of awareness, knowledge and culture, outdoor recreation, especially in nature 7. The lack of recreational facilities	x x x   x	x	1.Income opportunities 2. Job creation  3. concession to the private sector	X x  x	X x  x x

and utilities such as parking, health care and etc.	x		4. aid and protection of natural resources		
8. The lack of regulation, good management and functional – physical organizing in Lar natural promenade			5. Placed the Forest Park at the entrance of city	x	x
9. The lack of recreational facilities and services in parks and green spaces (low social returns)		x	6. fertile soil		
10. The lack of maintenance facilities			7. Source of fresh water in North Park		
11. Failure of policies and objects of the resorts.	x		8. The low land slope and foothills around Forest Park	x	x
12 –Lack of management and public administration failure of tourism industry.	x		9. Take advantage of barren land around Forest Park		
13. Weaknesses in the field of culture, tourism, education and advertising.	x		19. Existence of mountains and multiple valleys in the region that are capable to connect tourist routes to climbing routes.		
14. The lack of seasonal festivals and exhibitions in forest park	x		11. quick access from the city to nature without spending a lot of time and cost		
15. Lack of advanced security systems		x	12. Existence of open spaces, in East and West of region and mountain area and to develop extensive recreation		
16. The lack of systematic planning and organizational weaknesses and the need to develop uniform regulations in order to boost tourism	x				
17. Mismatch of entrance routes for travel and tourism so that most of the old ways, and even some part are soil way.	x				
18 –Lack of suitable Health tents and allocation of spaces for tents that actually is critical reduce costs.	x				
19. The lack of plumbing in all parts of the park	x				
20. Lack of safe and healthy drinking water.				x	
21. Lack of appropriate and unplanned open spaces urban					
22. Lack of access to open spaces in terms of location and dispersion and distance from urban centers are the reason of citizen's discontent	x			x	
23. Disproportion of town planning that causes lack of space identity and lack of people attachment to these spaces.	x				
24. The lack of attention to social and cultural issues of identity and space that makes non-attachment of the people to these spaces.	x			x	
25. The direct discharge of waste into the open raceway that causes pollution problem of green space.	x				
26. Entrance of sediments into the watercourse of mountain				x	
27. The gradual drying orchards and palm groves					
28. Conversion of forests to deserts					

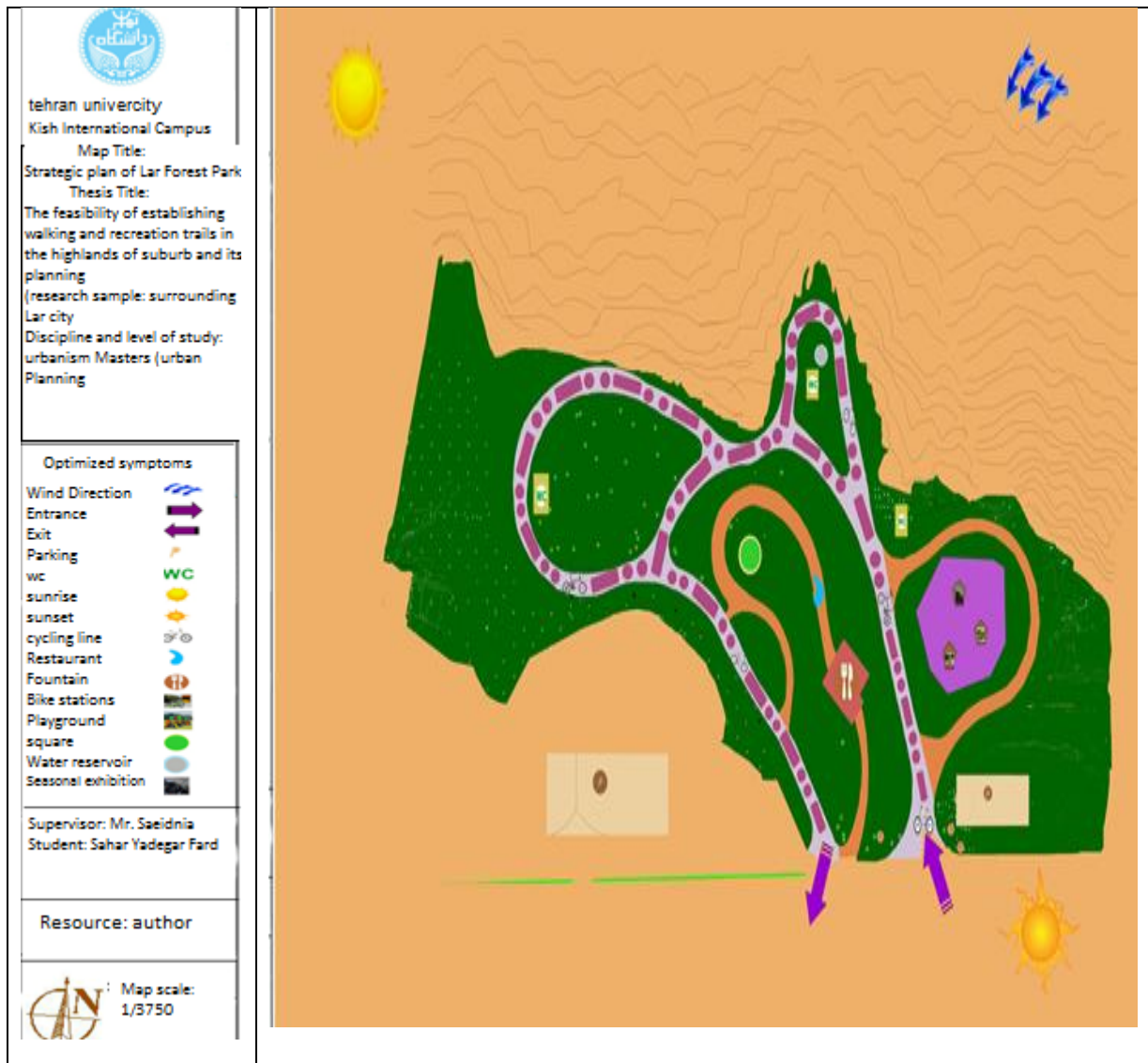
Based on studies regarding the needs of the people, ecological capacity, ecological characteristics and aesthetic. Forest Park Lar strategic plan was prepared as follows: In this design, by maintaining the overall structure of the city forest park and ecological principles, recreational part with around zones has been considered in the forest part of the park. Finding location of this section has been done with respect to the feasibility of

environment based on ecological capability and aesthetic. And based on that site analyze, areas suitable for intensive recreation marked that includes three main areas (the top area of the one, two and three zone). Main access of Park has been planned two entrance for people in the car and on foot and two entrance for parking. Exhibition complex development project in its current position has been suggested on the east side of the

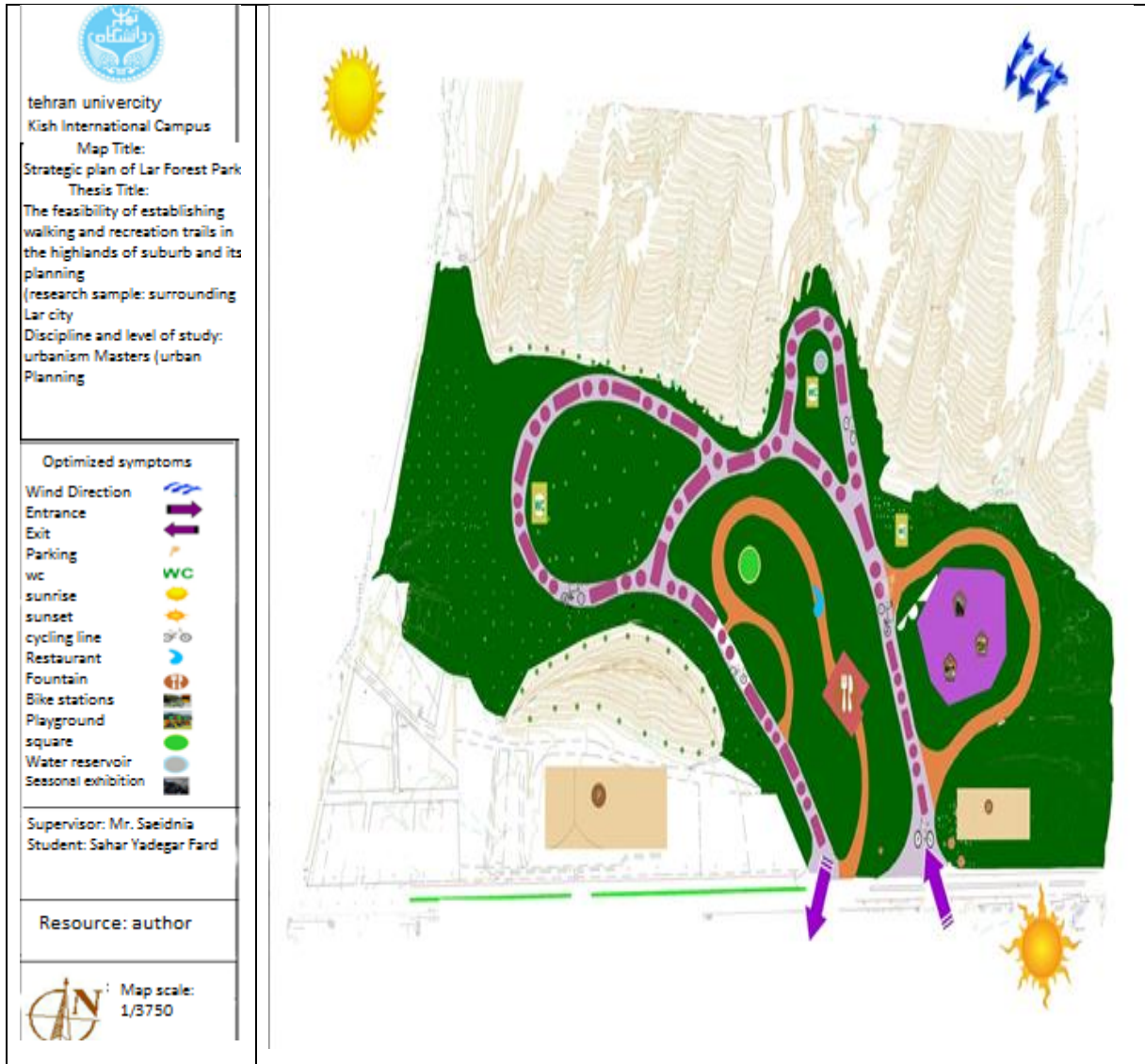
park that it has direct access possibility from the city to exhibition and special parking.

- The first zone includes the waterfront promenade, a buffet, statue of the city's famous people and definition of elements and entrance of Forest Park, restaurant, outdoor amphitheater, indoor-swimming pool and so on. This section is planned in the vicinity of exhibition.
- The second zone includes the largest recreation – culture complex, such as multi-purpose halls, artificial lake and square and bike and pedestrian path
- The second zone with the idea of Green Road Project includes the road with width of 4 meters that is considered as walkways and cycling path and health kiosks for diabetics and creation routes for walking and water views on mountains and night lighting

Separating each of the zones has been investigated according to the ID tracking and obtain its coordinates in forms of slope, topography and dewatering of that region and mapping, benchmark and GPS, points evaluation, preparing a questionnaire and according to the exposure of the water source in north of the Forest Park and strategic plan and drawing the lines of plan has been done according to the findings of the research project. (Based on the analysis and conclusions of all information of understanding, analysis map of park and the opportunities and constraints of park has been drawn on map based on ecological potential, aesthetic, mapping available resources, vegetation, limiting erosion, deforestation, etc.). This map and the results of is used to offering design to meet the needs and using possibilities with determination of total objectives of the project be and the strategic plan of the park is shown in one and two map



Map 1: Strategic plan of Lar Forest Park (Source: author's conclusion and drafting)



Map 2: Strategic plan of Lar Forest Park (Source: author's conclusion and drafting)

**Suggestions**

As a general conclusion it is concluded that the part with the lowest investment can have most revenue in these regions are tourism and tourism industry that can play a role as one of the contributing factors to the growth and development of regional economy and boost employment and unemployment Prevention and finally emigration in the region. According to the obtained results following suggestions are offered.

- For proper implementation of laws in the field of tourism, predetermined and specific policy is necessary and concrete information needs for planning. Therefore, it is necessary to form independent organization to implementation appropriate laws and programs.
- Public information should be so that public could introduce the tourist attractions of the province by publishing books and brochure. Therefore, it is suggested that in the notification, some offices be established by state and local authorities under the supervision of Iran Tourism and Tourism.
- Serious revision should be done in general policies in consecutive organizations for the development of tourism. In

particular the Tourism Organization despite its task with the current situation can not have complete and comprehensive activities. Thus opening technical office or Tourism Technical Assistance Unit is necessary in governor.

- So to growth of the tourism industry:

- A) proper implementation of government approvals are required.
- B) It needs support and encourage of the government.
- C) It requires the cooperation of authorities in the planning and management and etc. to formulate rules and regulations for planning in order to create and modify or complete the rules.

- Planning, designing and creation of urban open spaces proportional to the number, size and position in accordance with the population in the city
- Utilization of the capacity of educational resources, consulting, researching, designing and operating facilities and tourism.
- Paying attention to cultural and social conditions of the city, in the creation of urban open spaces, to create belonging and the

development of psychological security, especially for women and children

- Tourism-recreation advertising programs coordinated by the Special Council.
- Improving the quality of urban open spaces according to design criteria based, physical and mental needs of people, especially young people and the elderly
- Creation and build houses and summer villas.
- Establishment of medical centers around plan.
- Creation health services for country veterans.
- Existence of security guards hostelry.
- Creation chain stores with an emphasis on employment (in Forest Park)
- Creation traditional markets in the east side of Forest Park
- Build promotional products with good quality.
- Harmony with the natural resources to rebuild the wasteland around Forest Park.
- Micro-components should be considered based on the proposed strategic plan ideas and assessment the needs of users. The place where has recreational activities and perhaps specific activities must lead to the satisfaction of users and combine beautiful environment with social interaction, at the same time must refuse from expanding the lifeless area with lack of environment interest.
- Path planning should lead to aim views or something that go to the focal points and also destination that create most excited the interest of users.
- Space playgrounds for children, including space to play with equipment, wood and play with shadow children, allowing children in the shade of a composed, with chalk on the land forms or whatever your favorite draw and children colors and shapes dominate the find.
- residential areas and recreational facilities that is created for public use in this area, must be on minimizing and on the other hand should increase the enjoyment of visitors of area, which is in the form of overnight visitors.
- Building statue and memorial statues according to spirit and culture of the indigenous people.
- Creation moving ramps for the disabled
- Installation trash and distribution of it in the right places.
- Construction of drinking water places in different parts of the park.
- Transfer water by pipeline to most parts of Forest Park
- Use Iran's gardens principles such as water base in different areas of the park.
- Planning, furnituring Park in coping with climate comfort.
- Creation public arena as a base of healthy behaviors in the activities of various groups.
- Placement of permanent and temporary activities throughout the park as a view on the park.
- Emphasis on permanent police presence in the park.
- Change the position of trees to restore favorable views and point and linear point of view.
- Planting beautiful and seasonal flowers around the area.
- Creation of large and green public areas to strengthen the identity of a city park.

- Advice human gestures and distribute it throughout the park through green architecture and how to plant trees.
- Creation educational and applicational gardens due to the more possibility of park space.
- Induction specific identity in different areas of the park through a variety of planting.
- Planning and development of outdoor sports such as football ground, swimming pool, multipurpose hall for sports and etc in wasteland around the park.
- Lighting places that will be used at night.
- Induction policies for the conservation and restoration of rivers, streams, wetlands and preventing destructive policies
- Creation a variety of filters for sewage, water treatment and waste depot in order to avoid contamination

#### REFERENCES

1. Ahmadi Sani, Nasser, Babaei kafaki, Sasan and Mataji, Asadullah 2011. Exploring the possibility of ecotourism in terms of ecological activities in the northern Zagros forests using multiple criteria decision-making, information system.45-64: (4) 3 geographic and remote sensing, Amayesh Sarzamin Journal
2. Dr. Homa Irani Behbahani \* Engineer Narmin Razi Moftakhar \*\* (sustainable design of Sheykh Tappe Orumieh forest park development) 189- Journal of Environmental Studies, Issue 37, Spring 2005, page 104
3. Laghayi, Hassan Ali. Planning and design of urban green space. Journal of the green space. Number of 5 and 6.
4. Los Heywood et al. (2001). Leisure, translated by Mohammad Ehsani, Amir Danesh Publications, Tehran.
5. Los Heywood et al. (2001). Leisure, translated by Mohammad Ehsani, Amir Danesh Publications, Tehran.
6. Lu, et al. (2011), A New Approach on cultural diversification in public spaces, with emphasis on urban city parks, Translated by Varaz Moradi Masihi et al, ICT Publications Organization of Tehran Municipality, Tehran.
7. Majnounian, Henrik, 1995. Debate about parks, green spaces and promenades, Tehran, Department of Parks and green spaces puplication in Tehran.
8. Mohammad Bagher Vosoughi (Lar, city with soil color: research in linguistics and history of Larestan) Number of pages: 218, Date of publication: 23/07/1991
9. Saeednia, Ahmad 2004. Urban green space. Volume 5. Publications of the country's municipalities and administrators, page 159.