

Investigating the capabilities of desert areas in Iran in order to attract foreign tourists (Case Study: Mesr Desert and Maranjab Desert)

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Abstract

Majority of Iran (about 90%) is situated in semi-arid, desert and semi-desert regions. The vast extent of dry areas in Iran necessitates a thorough consideration of the potentials of these areas in the field of ecotourism industry. Desert areas in Iran are full of tourist attractions, so that in addition to the natural attractions of deserts and salt deserts, it is possible to say that most cities or even some rural areas located in these regions have unique cultural monuments and historical and natural attractions. Dasht-e Kavir (Great Salt Desert) and Dasht-e Lut (Lut Desert), the two largest salt deserts in central Iran, are considered as one of the richest ecotourism potentials in the Middle East. The spatial scope of this research includes sandy and salt desert tourism destinations such as Maranjab Desert located in northern Aran va Bidgol, city and Mesr village in the central district of Khur and Biabanak County, Isfahan Province. In this research, we tried to examine the hypotheses of this study by identifying the specific and unique potentials of these areas, based on the field study and collecting library documents and information, using observations, interviews with authorities and professionals in the field of tourism and referring to the relevant web sites. The analysis of data of this research indicates that the unique conditions of the studied areas in terms of natural, historical and sport attractions and so on are among the most important potentials for attracting domestic and foreign tourists. According to the findings of this study, the difference between the culture of tourists and local subcultures and also the lack of necessary facilities and infrastructure are among the problems facing the officials and tourists in these areas. Based on the interviews conducted with tourism officials and local trustees, the development of any tourism activity requires the existence of infrastructures such as roads, transportation, residential centers, health centers, security centers as well as religious and cultural infrastructures, so that the tourism activity in these areas can become as dynamic as possible.

Keyword: tourism, foreign tourists, ecotourism, desert tourism, salt desert (salt pan, Kavir), desert

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Introduction

Nowadays, due to the high income of tourism and ecotourism, these phenomena have led many countries in the world to invest a lot of money in this sector. In addition to the rich cultural heritage of Iran, the land of ancient civilizations, it is also has significant natural attractions for tourism. One of the most important potential capacities of tourism industry is nature tourism, or ecotourism. Our country, due to its many natural attractions, is considered to be among the top five countries in the world in terms of nature tourism. Thus, we can find our true place in the world by planning in this field and using the opinions of experts and scholars as well as conducting applied researches (Jahanian, 2009, p. 3).

Arid and desert zones cover a vast surface area of the land in the world and most of Iran is located in the territory of arid regions, including salt deserts and sandy deserts. The vast extent of dry areas in the world and also in Iran necessitates a thorough consideration of the potentials of these areas in the field of ecotourism industry. Desert areas in Iran are full of tourist attractions. Scientific tourism requires a basic understanding and familiarity with the various components of this industry. Since “attraction” in all its forms, whether natural, historical or cultural and so on is the main pillar of this industry and is in fact the main purpose of travel, its recognition is of great importance.

Problem statement

Salt desert is one of the most important economic resources of the country. In the past, salt desert was considered as an unutilized land and an economic deterrent, but today it is seen as one of the most important economic resources in the country. Today, deserts are among the most important renewable and sustainable economic sources in various fields, especially for attracting tourists in the world. Desert tourism is currently one of the main manifestations of tourism in the world; many Asian countries, such as United Arab Emirates,

China, etc. are using these areas as tourist attractions and even the tourism hub in their country. By investing on the equipment needed by tourists, these countries have been able to attract many tourists and earn huge revenues from their sandy and burning lands each year to the extent that a significant portion of their national income comes from desert tourism. Development of tourism and ecotourism can reduce our country's dependency on oil and create a huge number of jobs. Therefore, it seems necessary to pay attention to the tourism industry in general and desert tourism in particular, as well as the development of infrastructures required by tourism industry in these areas, taking into account the environmental conditions and considerations for sustainable development of this industry and also preventing its negative consequences.

Main research question:

What are the most important special capacities of desert areas in Iran (Mesr and Maranjab), which can be effective in attracting 'foreign tourists?' What are the problems facing domestic and foreign tourists, as well as tourism officials in these areas (Mesr and Maranjab)?

Importance and need of research:

The increasing share of tourism activity in the economics of countries and also the detrimental effects of developing this activity in the human environment led the researchers to do some studies and researches in this field. Natural and tectonic resources are considered in different types of tourism. In Iran, these resources can be the focal points for developing nature tourism, especially in desert and mountainous areas. Thus, in order to take advantage of the environmental and management potentials and features of tourism development in these areas with different approaches, carrying out researches for identifying these potentials and features seems necessary. In order to achieve the goal which is the proper utilization of various valuable resources of deserts and other adjacent resources, we need to completely understand them. According to global statistics, by the year of 2020, a population of over 1.6 billion tourists is expected to travel and bring over two trillion dollars in cash flow (Heydarian, 2002). Perhaps it will not take too much time for the tourism industry to easily replace the declining energy industry and becomes the world's premier industry. However, based on predictions,

the countries in Africa, Middle East and South Asia, which are mostly Muslim countries, will still receive a small share of the revenues of the industry. Countries like Egypt, Turkey, Iran, Lebanon, Malaysia, Indonesia and Morocco are among the most attractive countries. In this regard, the rate of utilization and taking advantage of the capabilities of the Islamic world in the field of tourism is very important and requires setting goals and systematic planning.

Hypotheses:

- 1) It seems that the unique conditions of the studied areas (Mesr and Maranjab deserts) in terms of natural attractions, such as dunes, wildlife species, and historical and sports attractions of these areas are the most important capacities of the desert areas in Iran which can attract foreign tourists.
- 2) It seems that the difference between the culture of tourists and local subcultures and also the lack of necessary facilities and infrastructure are among the problems facing the officials and tourists in these areas.

Research objectives:

1. Identifying the potentials of desert areas in the field of ecotourism and geotourism
2. Identifying the desert tourism destinations in Iran
3. Identifying the weaknesses and strengths of these areas
4. Identifying the existing threats and opportunities and providing solutions
5. Identifying the best time for foreign tourists to visit desert areas
6. Providing suggestions and solutions to increase the attraction of foreign tourists

Research methodology:

The present research is descriptive-analytic and library and field research methods have been used as well. Data collection methods are library, documentary and field methods. Data collection tools include interviews, observations, tests, tables, data banks and computer and satellite networks. The analysis method is content analysis that has been extracted from the context of multiple interviews with related audiences. This research was conducted in the period from Dey 2011 (December 2011) to Shahrivar 2012 (August 2012).

Study area and study time (Spatial and temporal scope):

Maranjab region is located between latitudes 34°- 34°15 and longitudes 51°05-51°35. According to the administrative divisions of Iran, it is located in the desert section of Aran va Bidgol, Isfahan province, near to Kashan. The altitude of the area from the south to the north is 910 to 823. The mountainous part of this area includes Siah-Kuh, Davazdah Emam Heights, Kuh-e Latif, Sefidab and Talbur. The southwest area is Aran va Bidgol. The region leads to the salt lake from the north, to the dunes (sandy hills) along the northern south from the east, to Desert National Park (Sefidab Inn and the Palace of Bahram) from the south and finally to Masileh Desert and Hoz Soltan and Hoz Morreh salt kales from the west. Mesr region is located in the central desert of Iran, (known as Dashte-Kavir in Persian), in the [central district](#) of [Khur and Biabanak county](#), Naein city, 45 km North of Jandaq city and 65 km north of Khur city which are located in [Isfahan Province](#). The geographical coordinates of the village is 34° 04' N and 54° 47' E.



Map 1: Cities of Isfahan Province

Research findings:

Tourist attractions of Aran vs Bidgol and Maranjab region

Maranjab Desert is one of the most beautiful salt deserts in Iran. Aran va Bidgol salt lake and Sargardan island are among the other landmarks in the region. Dastkan historical fresh water well in the eastern part was a watering place for caravans of camels. Maranjab

Caravanserai, which was built on the order of Shah Abbas Safavi near to the Maranjab Qanat, is among the historical monuments in the region. Around 12 km from the east of Maranjab Caravanserai, there are dunes which are among the most beautiful attractions in Maranjab desert (Fig. 1). Maranjab castle or caravanserai which was built more than 350 years age, is located 200 km southwest of Tehran and 70 km northeast of Kashan. Maranjab is located in Kavirat Rural District, Aran va Bidgol County which is 50 km northeast of this city. The caravanserai is located in the geographical coordinates of 34° 17' latitude and 51° 48' longitude with an altitude of 810m above sea level in the southern margin of the Namak Lake (Map 1).



Map 1: Detailed location of the caravanserai on GPS:

This brick building is located on the path of one of the famous branches of the Silk Road and has been a way of communication between Khorasan and Isfahan in the past. This caravanserai was built by Shah Abbas in the Lunar year 1012. In Iran, the distance between the two caravanserais was about 6 miles (36 kilometers) so that after one day of travel, passengers could spend the night in the next caravanserai. The map of Maranjab Caravanserai is square shaped (Fig. 1). There is a pool measuring approx. 4 x 10 meters on the south side of the caravanserai (Fig. 2). This caravanserai is located in the south of the salt lake and in the west of Band E Rig Desert which is a very good place for camping. The climate of Maranjab desert is warm in summer and the temperature is very high, especially during the day.

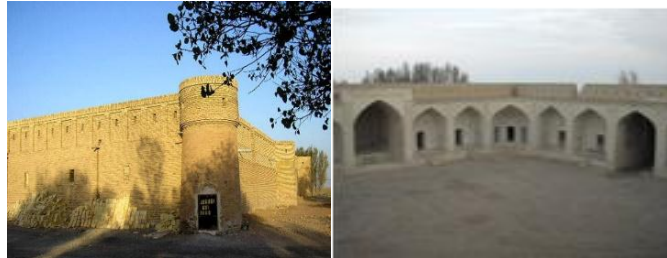
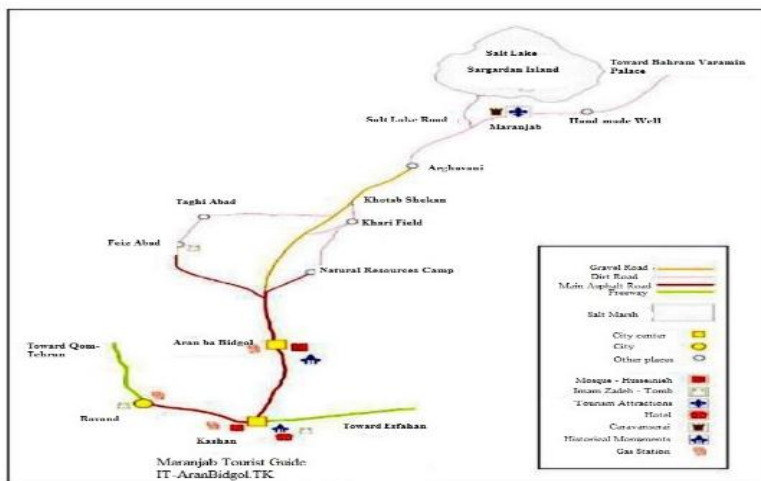


Figure 1: Maranjab Caravanserai



Figure 2: The pool on the south side

Maranjab Caravanserai is one of the most important astronomical observatories in Iran and the lovers of night sky travel there from neighboring provinces. From the top of the caravanserai's roof (which is also known as the castle of Maranjab), Namak lake and Sargardan island inside it as well as the continuous dunes located on the east of the caravanserai (the beginning of the Aran va Bidgol Rig) can be seen.



Map 2: Maranjab Tourist Guide

Aran va Bidgol salt lake: Aran Salt Lake is located 35 km northeast of Aran va Bidgol city. This lake leads to Sefidab and Siah Kuh mountains from the west, Desert National Park from the north, Masileh Desert from the northwest and Maranjab Desert and Band E Rig Desert from the south.



Map 3: Aerial view of Aran va Bidgol salt lake



Figure 4: Beautiful crystals of this salt lake

The lake is shaped like a triangle with its base facing the north. The length of the base of this triangle is 35 km and its height is 38 km and the surface area of the lake is about 647 km². The land of this lake is covered with salt deposits. The salt depth of this lake is between 5 and 54 meters which is separated by clay layers. With each rainfall and evaporation of water in this lake, existing salts form beautiful polygonal crack patterns. Another spectacular scenery of this lake is Sargardan Island located on the south side of the island.

Sargardan Island: This island is a hill located in Aran va Bidgol salt lake. The island, the highest point of which is about 808 m above sea level, is composed of volcanic porous rocks and is devoid of any

vegetation. The island is called Sargardan (bewildering in English) because when you look at the island from a far distance, the two ends of the island disappear on the horizon and create a scenery like a wandering ship in the vast desert.



Map 4: Aerial view of Sargardan Island

Dunes (hills of loose sand): Among the other attractions is the presence of dunes (sandy hills) which start from Maranjab and continue. There are many minerals among these dunes.

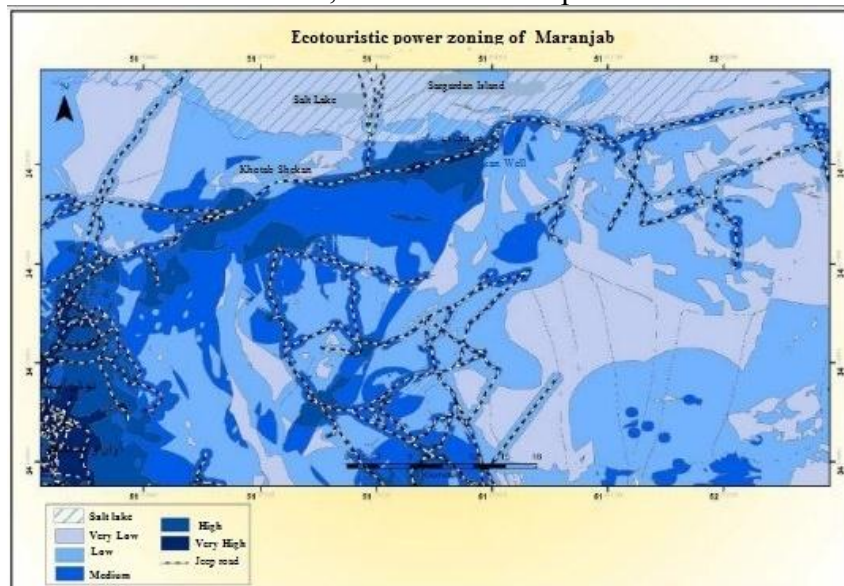
Dastkan (hand-made) fresh water wells: Another important attraction is Dastkan water wells with one meter depth and fresh and drinkable water next to the salt lake, dating back to thousand years ago which have spiritual and cultural values.

Chah Konjeh Desert: This desert is located in 25 km northeast of Aran va Bidgol city in Isfahan Province with the geographical coordinates of 34° 12' N and 51° 18' E. The length of the desert is about 4 km and its width is about 2 km. On the edge of the desert, there are bloated clay grounds. After these bloated soils, a narrow strip (about 500 meters) has surrounded the desert from the wet area, followed by an irregular salt layer. There are no salt platforms in this desert. The spring in the southeastern part of the lake called Chah Konjeh is the water supply for this desert.

Ecotourism zoning of the Maranjab region

In this map, the boldest spots show these areas are power, which means that they have the highest potential for tourism attraction. The jeep road that runs through the boldest areas, is the most appropriate way for visiting the region. Of the 32,000 hectares of the region, about

113,532 hectares have high potential, 2778.8 hectares have a relatively high potential, 5235.8 hectares have medium potential, 2062.46 hectares have relatively low potential and 10703 hectares have low potential. High potential areas are located in these ranges: within 500 m of roads, within 1000 m of villages, within 10,000 of cities, within 5,000 m of springs and wells and other groundwater resources, within 2500 m of watersheds and other surface water resources. These areas precisely comply with sandy and clay zones in terms of geology; with the range of winds and dunes in terms of geomorphology; with agricultural and uncultivated lands in terms of land use; and finally with medium-potential areas with the highest score in the study in terms of erosion. Therefore, the results of Map 5 are confirmed.



Map 5: Potentiometric map of Maranjab

Investigating the appropriate timeframes and comfort for tourism in Maranjab region

Based on the results of data processing using the Tourism Comfort Index (TCI) in Maranjab region, it can be concluded the months of Farvardin and Ordibehesht (April and May) in spring and Mehr (October) in autumn are the best timeframes for passengers to visit this area. But the month of Tir (July) is the worst time due to extreme heat.

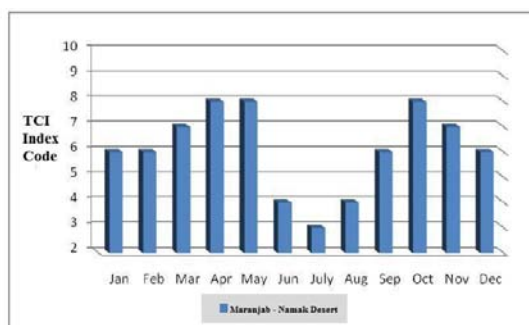


Diagram 1: Tourism Climate Index of Maranjab-Namak Desert

Tourist Attractions around Mesr village:

Mesr village reed bed: Mesr reed bed is located at 6 km from Mesr village in the northeast of Isfahan province at 54° 48' E and 34° 05' N. Due to the presence of water resources, the vegetation of the region is very rich compared to that of other surrounding areas (Figure 5).



Figure 5: the vegetation of the region in Mesr village

Gardens and palm trees of Amirabad and Farahzad villages: Amirabad area, 2 km away from Mesr village, has sand dunes and vegetation rich in shrubs of tamarisk, saxaul and palm, creating beautiful landscapes. In this area, the farms of residents of Mesr village are located (figure 6). In addition to Amirabad village, which is only a place for Mesr villagers' agriculture, Farahzad village, 3 km north of Mesr, is one of the other villages around Mesr that is surrounded by dunes and has beautiful palm trees (Figure 7).



Figure 6: Palm trees of Amirabad village



Figure 7: Beautiful sand dunes of Farahzad village

Tal-e Khakestari hill: The highest flat in the area which is located 24 km northwest of the villages of Mesr and Farahzad. The difference between Tal-e Khakestari with flats in the southern region of Dasht-e Kavir is its high elevation and having the ecosystem of both salt desert and desert. This has made the flat and smooth grounds of Dasht-e Kavir observable from the northern landscape. Also, longitudinal strips of dunes can be seen in the northern landscape which end at the border of the desert.

Selkenoon hole: this hole is located at the geographical coordinates of $34^{\circ} 07' N$ and $54^{\circ} 46' E$, in the north of Mesr village of Isfahan province and in the south of Dasht-e Kavir. Selkenoon means “current flood” in Persian (Fig. 8).



Figure 8: Selkenoon hole Figure 9: Selkenoon salt lake

Selkenoon salt lake: this lake is located at the position of $34^{\circ} 07' N$ and $54^{\circ} 47' E$ in Isfahan province, in the south of Dasht-e Kavir and northeast of Mesr village (Fig. 9). The type of this lake’s soil is alkaline clay covered with salt.

Takht-e Aroos (Bride Throne) and Takht-e Abbasi (Abbasi Throne) landmarks: Takht-e Aroos is located at $34^{\circ} 09' N$ and $54^{\circ} 45' E$ in Isfahan province, in the south of Dasht-e Kavir and north of Mesr village (Fig. 10). This place is one of the most beautiful regions of Iran. At the top of the Takht-e Aroos and in the southern landscape, sand dunes, Selkenoon hill and Mesr village are visible. In the north, large dunes, Takht-e Shoor and in the northwest, Damghan Mountains, Damavand peaks (when the air is clear) and Dasht-e Kavir marches also can be seen. In the western part of Takht-e Arros, there is a very tall dune. Takht-e Abbasi is located at $34^{\circ} 07' N$ and $54^{\circ} 47' E$ in Isfahan province, in the south of Dasht-e Kavir and north of Mesr village (Fig. 11). At the top of the Takht-e Abbasi and in the west and south, Selkenoon hole and Mesr and Farahzad villages can be seen. In the north, Takht-e Aroos and in the east, Selkenoon salt lake are

visible (Zendeh Del, Comprehensive guidebook of Isfahan province, p. 164, 2005).

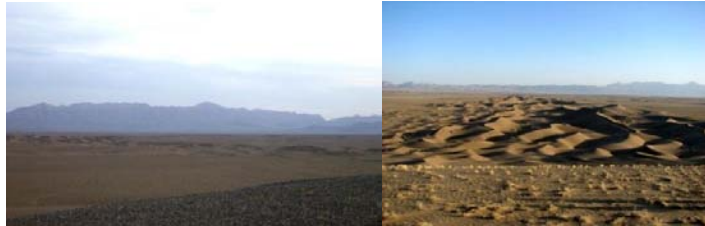


Figure 10: Takht-e Aroos Figure 11: Takht-e Abbasi

Wetlands and palm trees in Garmeh village: Garmeh village is located in the geographical coordinates of $33^{\circ} 31' N$ and $55^{\circ} 02' E$. this village is located 30 km south of Khur city in Isfahan province and south of Dasht-e Kavir, and its climate is hot and dry due to proximity to the desert (Fig. 12). The ancient and historical monuments of the village include *Bayazeh Castle* (Narenj castle), which dates back to the Sassanid era and is located in the center of the village. Beside the walls of the castles is a mosque which was restored in the eighth century by Master Dehnavi. This very old castle is a favorite of most archaeologists.



Figure 12. Wetland of Garmeh village Figure 13. Bayazeh Castle

Khur salt lake (Tabagheh Desert): Khur salt lake is located in the geographical coordinates of $55^{\circ} 15'$ to $56^{\circ} 15' E$ and $33^{\circ} 30'$ to $34^{\circ} 30' N$ which is the largest season salt lake (Playa) in the world. The lake extends from the center to the south of Dasht-e Kavir. The height of this lake is 707 m from sea level and is considered as one of the lowest points in the Iranian plateau. The high temperature difference in day and night causes the surface salt layer to crack and the underlying wet layers lose their moisture due to these cracks, which results in the formation of salt polygons (salt platforms). Also, the movement of black mud in the lower layers is also effective in these formation.



Figure 14. Sunshine landscape in Khur Lake

The desert consists of two northern and southern holes. The southern hole is 3 times larger than the northern hole. The height of northern hole from the sea level is 15 meters more than the southern hole. 20% of the surface of the northern hole is made up of black salt (Tabagheh Desert) while the amount of black salt in the southern hole is only 5%. The reason for the formation of sharp and explosive black salts in this area is as follows. The white salt passes through the sun's infrared rays. The best surface for absorbing these rays is the black mud in underlying layers. These muds are heated and expanded by the absorption of this radiation and their pressure on the surface layers results in breaking of these layers and getting out of the land to the surface of desert. After drying due to the erosion of wind and rain, these black muds form very sharp shapes that make the movement of cars and animals practically impossible. During wet seasons, this lake turns into a mixture of clay and salt; while in dry seasons, it turns into a white sea of salt. The compression of salt in the underlying layers makes driving easy on some parts of the lake. In recent years and with the advancement of the ecotourism industry in Iran, travelers are visiting the southern parts of the lake (Fig. 14).

Bagher Dozdoo playa: this playa is located 8 km east of Mesr village, Isfahan province. The desert with 10 km width and 30 km length is surrounded by dunes on the west side and flats on the east side. There are limestone grounds in the south, followed by sand dunes. Therefore, this area looks like a small dry lake surrounded by these hills.



Figure 15. Southern parts of *Bagher Dozdoo* desert

Aroosan Village: this village is a part of Khur and Biabanak County, Naein city, which has geographical coordinates of 55 degrees and 1 minute east longitude and 33 degrees and 28 minutes northern latitude, located 234 km northeast of Naein city. The village is 920 meters above sea level and its climate is warm and dry. Farakh seasonal river crosses 2 km south of the village and Davanbaroo Mountain and the Garmeh village are located in the north of this village. The economy of Aroosan village is based on farming activities, gardening, camel breeding and the production of handicrafts. Cheese, local butter, pomegranate sauce, dates, varieties of vegetables and summer crops, cotton, wheat, barley and millet are the diverse animal, agricultural and horticultural products of this village. Lush palm trees especially during harvesting are another attraction of this village. In these palm trees, more than 60 types of dates are grown (Fig. 16). A mineral spa, located 18 km from the village, attracts many tourists during different times of year.



Figure 16. Aroosan village



Figure 17. Camels feeding in Aroosan region

Mohammad Abad Koore Gaz village: this village with the geographical coordinates of 55° 10' and 34° 11' is located in the middle of the south of Dasht-e Kavir which leads to slopes of the Rig Kaleh, Qom Kushk and Jen hillsides from the south and to the sandy deserts of Dasht-e Kavir. This beautiful village has only one

inhabitant. Abdul Hussein, 80, who lives alone in the middle of this desert.

Investigating the appropriate timeframes and comfort for tourism in Mesr region

Investigating the comfort condition of the studied station in the study area was carried out using the Olgi method. The aim of these methods is to study the climate comfort during days and nights. Olgi method was use for Khur and Biabanak station. So that using four-element climatic elements including maximum temperature, minimum temperature, maximum relative humidity and minimum relative humidity, human comfort range were determined based on these four specified elements. According to estimates conducted by Olgi method at Khur and Biabanak station, Mehr and Farvardin months with maximum temperature and minimum relative humidity during days are within the climate of comfort; also 4 months are in the cold zone and during nights, five months are in the freezing zone (Fig. 4-2).

Table 1. Investigating the comfort condition at the Khur and Biabanak station in the day by Olgi method

Months	Azar	Aban	Mehr	Shahrivar	Mordad	Tir	Khordad	Ordibehesht	Farvardin	Esfand	Bahman	Dey
maximum temperature	11.9	17	24.8	31.5	35.4	36.2	33.9	28.2	23.4	16.5	12.8	9.7
minimum temperature	34	26	18	14	13	15	15	13	19	24	28	39
Climatic conditions	Cold	Cold	Comfortable	Semi-arid	Arid	Semi-arid	Arid	Semi-arid	Comfortable	Cold	Cold	Freezing

Table 2. Investigating the comfort condition at the Khur and Biabanak station in the night by Olgi method

Months	Azar	Aban	Mehr	Shahrivar	Mordad	Tir	Khordad	Ordibehesht	Farvardin	Esfand	Bahman	Dey
maximum temperature	0.1	4.3	10.4	16	19.9	21.7	18.9	14.2	10	4	0.3	-1.7
minimum temperature	62	53	39	29	27	29	29	40	47	54	60	69
Climatic conditions	Freezing	Freezing	Cold	Cold	Cold	Comfortable	Cold	Cold	Cold	Freezing	Freezing	Freezing

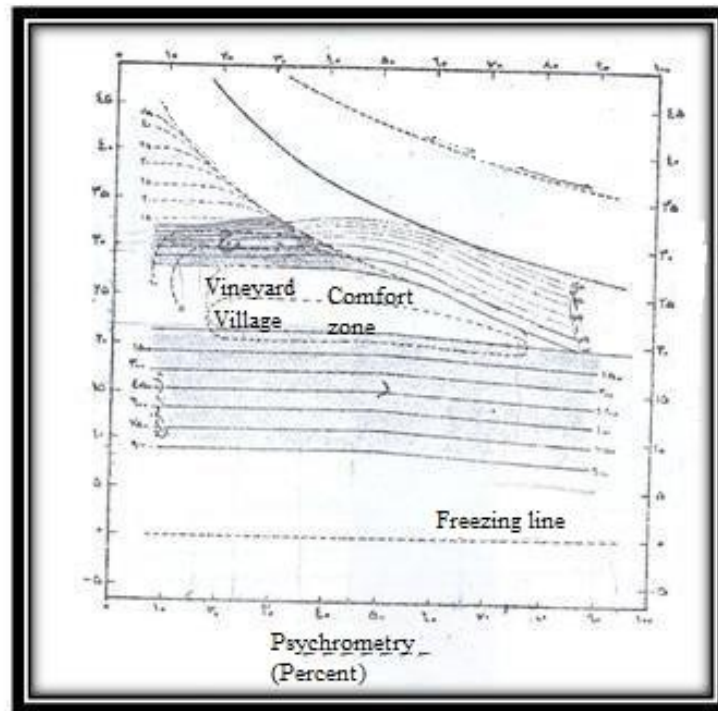


Chart (2) Climatic Comfort Study in Olgi Method

Research findings

Following the conduction of studies and researches on the studied areas as well as field studies and interviews with the tourism authorities of Mesr and Maranjab regions, the following results are obtained:

- A) Introducing the special and unique attractions of these areas
- (B) Investigating tourism population and the main problems facing officials and domestic and foreign tourists in these areas
- (C) Ongoing projects in these areas

*** Introducing the special and unique attractions of these areas**

After examining the potentials of the studied areas, 11 potentials are listed as a proposed plan in Table 3-4 based on the capability and current status of these attractions in these areas and whether they are utilized or not.

Table 3. Investigating the potentials of the studied areas

Tourism potentials of the studied area	Zone type	Maranjab			Mesr		
		Capability	Current status	Proposed plan	Capability	Current status	Proposed plan
Sand skiing	Ecotourism-Sports	✓		✓	✓	✓	
Car Racing	Ecotourism-Sports	✓	✓		✓	✓	
Motorcycling	Ecotourism-Sports	✓		✓	✓	✓	
Sand therapy	Ecotourism-Health	✓		✓	✓		✓
Sun tourism	Ecotourism-Health	✓		✓	✓		✓
Walking on sand dunes and endurance tournaments	Ecotourism-Desert Tourism-Health	✓	✓		✓	✓	
Cooking on hot sand	Ecotourism-Desert Tourism-Scientific Research	✓	✓		✓	✓	
Riding a camel and seeing camels	Ecotourism-Sports	✓	✓		✓	✓	
Holding national celebrations and rituals	Historical-Desert Tourism	✓	✓		✓	✓	
Observing the stars	Ecotourism-Desert Tourism-Scientific Research	✓	✓		✓		✓
Wildlife and medicinal Plants	Ecotourism-Desert Tourism-Scientific Research	✓	✓		✓		✓

*** Investigating tourism population and the main problems facing officials and domestic and foreign tourists in these areas**

Table 4. Number of tourists during the period of tourism boom (from Mehr to late Ordibehesht) in year 2015

Location	Tourism boom (from Mehr to late Ordibehesht)	Location	Tourism boom (Mehr until the late Ordibehesht)
Maranjab desert	18000	Mesr village	6000
Dasht-e Kavir	8000	Farahzad village	5000
Aran va Bidgol city	30000	Khur city	6000
Total of Maranjab region	56000	Total of Mesr region	17000

Table 5. Number of tourists during the period of tourism boom (from Mehr to late Ordibehesht) in year 2015

Location	Tourism boom (from Mehr to late Ordibehesht)	Location	Tourism boom (Mehr until the late Ordibehesht)
Maranjab desert	19000	Mesr village	7500
Dasht-e Kavir	9000	Farahzad village	6000
Aran va Bidgol city	35000	Khur city	6000
Total of Maranjab region	63000	Total of Mesr region	19500

Source: Tourism Dept. Organization

*** Investigating the main problems facing officials and domestic and foreign tourists in these areas**

1. The status of informing tourists to reach Mesr village is very poor. When tourists enter the main road from a subway road that is about 40 km, they encounter an empty and narrow road without any signs in which there are camels sometimes. There is no sign in this path, and

the only existing sign is likely to be a picture of a camel or a writing saying that there can be camels on the road.

2. In the path to Maranjab desert, there is a road that passes through the forestry facilities and due to its splits, it is possible to losing the way and face security problems, and there is a need for a guide to pass this road.

3. The existence of swamps on the edge of Sargardan Island, while attracting tourists, can create many problems for these tourists if they enter the area without a knowledgeable guide.

4. The lack of basic facilities such as safe water, first aids and telecommunications has created numerous problems for tourists. For this reason, people use mineral bottled water and then throw the empty bottles away and local people have to pick them up behind the tourists.

5. The lack of parking lots and proper restaurants are among the shortages and weaknesses of these areas.

6. One of the problems in Mesr region is that the resorts turn into a pile of trash. Also, Saxaule shrubs planted by the Natural Resources Department to prevent the movement of dunes are getting destroyed.

7. Another problem in this area is that a number of people in the region provide accommodation for tourists without permission.

8. The presence of different insects, reptiles, scorpions and snakes in these two regions is very problematic and will be difficult due to the lack of medical facilities and first aids.

9. There are no passenger terminals in the studied areas and there are mini-buses and taxis for transferring tourists in the old and new roads. Most tourists arrived in this area are travelling through touring agencies.

*** Ongoing projects in these areas**

1. Construction of a tourism camp in Maranjab region: The construction of a tourism camp located 10 kilometers from Aran va Bidgol with an area of 5 hectares and a capacity of 40 camps is ongoing.

2. A program for constructing two tourism camps in Aran va Bidgol region: A program for constructing two tourism camps in Aran va Bidgol region has been prepared and preliminary plans have been presented by two reliable investors from Kashan and Aran va Bidgol.

3. A plan for creating a desert village in Sargardan Island: By creating a tourist village in this island, a set of facilities for will be provided for domestic and foreign tourists visiting Kashan and its adjacent desert areas.

4. A plan for equipping Maranjab caravanserai: The equipment plan includes the construction of tent platforms (70 platforms), gazebos (30 units), star observation platforms, restaurants, traditional cafes, eco-museum, rest rooms with septic system and baths (20 springs), guard and management, prayer room , health center, a place for holding camel riding equipment, rally, ski on the sand, motorcycling and creating a set for polo sport, a parking lot with a capacity of 150 cars and an area of about 8950 square meters. The project is the first tourism-related project in the region, including the national tourism project of the country.

Analysis of hypotheses

The first hypothesis

It seems that the unique conditions of the studied areas (Mesr and Maranjab deserts) in terms of natural attractions, such as dunes, wildlife species, and historical and sports attractions of these areas are the most important capacities of the desert areas in Iran which can attract foreign tourists.

According to field studies and library studies conducted in this research, the presence of attractions and tourism potentials is one of the most important reasons for traveling to a specific destination. If these tourist attractions become more diverse, more unique, more refined and more attractive, they will have greater attraction strength, and therefore more permeability. The importance of attractions is such that at least the availability of accommodation and catering facilities, souvenir shops, handicrafts shops, etc., depends on the existence of several basic attractions. The importance of attraction as an intrinsic factor in tourism has been proved. Both regions (Mesr and Maranjab) have special and unique natural attractions and plenty of special amusements, including skiing and sailing on sand, car racing and motorcycling on relevant sites, sand therapy and sun tourism (especially tourists from European countries with less sunshine), walking on sand dunes, cooking on hot sands, as well as fun activities like camel riding and seeing camels at their drinking place, holding

national and ancient celebrations and rituals, unique wildlife, and discovering rare medicinal herbs and the possibility of scientific researches such as star observation (especially in Maranjab region) are important features of these areas. Ain-Rashid Caravanserai and Ghasr-e Bahram Caravanserai in the Maranjab region dating back to Qajar era as well as the historic Bayazeh *Castle* near Mesr village of Sassanid era are the historical attractions of these areas. According to the field studies, these two areas can be classified in different zones in terms of different aspects of tourism, including: ecotourism-sports zone, ecotourism-desert climbing and research zone, historical- ecotourism zone and ecotourism-desert climbing and health zone. Each of these zones is capable of attracting foreign and domestic tourists and every year welcomes tourists from different parts of the world, including France, Germany, Netherlands, Italy, China and so on.

Second hypothesis

It seems that the difference between the culture of tourists and local subcultures and also the lack of necessary facilities and infrastructure are among the problems facing the officials and tourists in these areas. In the studied areas, we find that the development of any tourism activity requires the infrastructures necessary for the dynamics of tourism activity in the region. Tourism facilities, services and infrastructures, including cultural, security and transportation infrastructures are among the most important issues in this regard. In order to maintain security in the desert areas, it is imperative that tourists visit these areas along with local guides who have full knowledge of these regions. One of the problems of the region is the status of informing tourists to reach the desired areas. In these paths, there are no boards and signs of guidance to inform tourists, and the only sign on the route is the danger of a camel passing the road, which is one of the significant problems in these areas. Another issue related to Maranjab region is that due to the non-observance of ethical principles and values by some tourists and the lack of interaction with the natives of the region, as well as due to the presence of a part of the area within the protected area of the Revolutionary Guard for a limited time (Eid 2011), the police prevented the presence of tourists in the region, which caused a recession of tourism in the region for a short time. Of course, the lack of passenger terminals in the study areas, the

presence of insects, reptiles, scorpions and snakes in these two regions, lack of medical facilities and first aids, providing accommodation for tourists by a number of natives of the region without permission, the lack of parking lots and proper restaurants and scarce drinking water are among the major problems in these areas. Therefore, the most influential factors in attracting foreign tourists are:

- 1) Cultural, social and religious factors of the region
- 2) Tourism facilities, services and infrastructures
- 3) Security and health infrastructures
- 4) Information and advertising infrastructures
- 5) Sport infrastructures
- 6) Educational infrastructures
- 7) Environmental and ecological infrastructures

Conclusion

Based on predictions, the general growth of the tourism industry for the first decade will be between 4.3 and 7.6 percent, and its largest share belongs to ecotourism which is between 10% and 30%. Considering that by the next decade, the number of Eco tourists, which now accounts for 7% of the world's passengers, reaches more than 20%; statesmen and investors are considering the necessity of this industry.

Today, the existence of historical and natural potentials in Iran has made this country one of the most attractive tourist destinations in the world. The development of this industry in every region initially involves the expansion of domestic tourism and the design and implementation of appropriate advertisings with the aim of motivating travelers to travel to areas with appropriate facilities and infrastructures. Realizing this fact, in addition to raising the level of infrastructures and services for the development of tourism, is the basis for increasing the acceptance of international and regional tourists. The development of ecotourism in the region contributes to the employment of different age groups; therefore, it not only changes the economic conditions of the region, but also changes the social conditions of the region through the traveler tourists on one hand, and the development of the rural social infrastructure on the other hand.

Based on field studies and data of this study, the presence of attractions and tourism potentials has been one of the most important

reasons for traveling to salt deserts and desert areas. Special and unique natural attractions, as well as historical attractions are among the most important tourist attractions in the studied regions, which prove the first hypothesis of this research.

Another key element in tourism is the Tourism Comfort Index (TCI). According to the estimates made by Olgi method at Khur and Biabanak station, the most ideal climatic conditions for tourists in this area (Mesr Desert) is the month of Aban and the most unfavorable conditions in attracting tourists is in Tir.

Based on the results of data processing using the Tourism Comfort Index (TCI) in Maranjab region, it can be concluded the months of Farvardin and Ordibehesht (April and May) in spring and Mehr (October) in autumn are the best timeframes for passengers to visit this area. But the month of Tir (July) is the worst time due to extreme heat. During winter season, seasonal rainfalls and the formation of marshy and muddy surfaces in the area and extreme temperature drop are the most important limiting factors in accepting tourists.

The second hypothesis says that the difference between the culture of tourists and local subcultures and also the lack of necessary facilities and infrastructure are among the problems facing the officials and tourists in these areas. Based on the interviews conducted with tourism officials and local trustees, the development of any tourism activity requires the existence of infrastructures such as roads, transportation, residential centers, health centers, security centers as well as religious and cultural infrastructures, so that the tourism activity in these areas can become as dynamic as possible. The swamps around Sargardan Island can create many problems for these tourists. Therefore, it is imperative that tourists visit these areas along with local guides who have full knowledge of these regions. . Poor status of informing tourists on the routes and roads and the lack of signs and information boards have influenced the attraction of tourists.

Suggestions and solutions

1. Increasing and adding facilities and infrastructure through:

Socio-cultural factors

- Informing the people of the region about their ethnic cultural origins, in order to communicate with tourists.

- Time planning for tourists, as well as performing traditional music due to its strong effect in these environments.
- Building trust among tourists based on social capital.
- Identifying the values of region at national and global levels.
- Establishing infrastructures in the region for tourism prosperity and facilities.
- Establishing a residence for tourists in the region.
- Creating tourist villages with all the necessary spaces and residential, catering, recreational and welfare equipment

Economic factors

- Restoration and growth of handicrafts that have been forgotten.
- Providing the necessary conditions to encourage investors and also providing banking facilities.
- Planning and improving facilities for serving tourists nationally and internationally
- Strong advertising for introducing these species.
- Creating an anthropology museum and with interior architecture of residential spaces.
- Creating local self-employment marketplaces for the sale of local products and handicrafts to tourists.
- Constructing camps with different degrees depending on the degree of internationalization of these areas.
- Building hotels with traditional architecture for desert areas.
- Increasing guidance boards and introducing the natural environment.
- Solving the problems related to water, electricity, gas and telecommunications network in the region.
- Organizing special educational tours for students with the aim of desirable economic mobility in the livelihood of people who live in the marginal areas of deserts by providing services to these groups.

Ecological factors

- Holding educational tours and gathering students of geology, geography, etc. in these areas.
- Creating places to take advantage of the therapeutic properties of sand.
- Holding annual sand writing conferences and preparing sand sculptures and photography competitions.
- Controlling the movement of dunes through planting vegetation.

- Creating specialized astronomy sites in these areas.
 - Creating the facilities for observing stars and celestial bodies.
 - Creating sports sites such as rallying, cycling, motorcycling and flying with gliders, paragliders, kites and balloons, polo, etc. and promoting desert sports such as desert hiking and so on.
 - Holding sports and championship competitions in rally, car racing, motorcycling, skiing on sand, camping and hiking marathon in desert and the efforts of members Auto Racing Federation to hold racing championships in the country, Middle East and the world
 - Providing a program for waste disposal.
 - Controlling the places visited by tourists in order to preserve species of endangered plants or animals.
 - Creating a camel riding base.
2. Sandy dunes have the greatest potential for attracting tourists and thus, they have priority in planning.
 3. Observing the ecotourism of the region, considering the capacity of the environment to accept and provide suitable services to tourists.
 4. Holding international conferences in these areas, both for diversification and attracting tourists (especially foreign tourists entering the country).
 5. Holding religious and ancient celebrations (such as Chaharshanbe Suri and the Celebration of Sadah) to introduce our ancient culture and civilization to domestic and foreign tourists.
 6. Having a regional look to these areas with natural value and rich Iranian cultures for praising and carefully planning and using their potentials and special conditions.
 7. Identifying, introducing, rebuilding and equipping the paths visited by internationally renowned tourists and deserters, such as Marco Polo, Naser Khosrow, Alfons Gabriel and Sven Hedin, which can attract more international deserters and bring regional economic growth and foreign currency into the country.

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