

EFFECTIVE CLIMATIC FACTORS IN MOUNTAINOUS REGIONS OF IRAN FOR  
TOURISAM PLANNING: A CASE STUDY IN OSHAN-FASHAM AREA

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**ABSTRACT:** Climate is an important part of a region's tourism resource base . Weather and climate information is of interest to both tourists and the tourist industry. Information on climate is useful for planning vacations. Processing information associated with tourism and a new era in human interactions, social and cultural structures, especially in urban areas the figure is estimated. Natural features of a place are considered as a bed for creation and extension of habitat, recognition of living system capabilities will be helpful as a guideline in future tourism planning and elimination of limits and obstacles. Natural features of a place are considered as a bed for creation and extension of habitat, recognition of living system capabilities will be helpful as a guideline in tourism planning and elimination of limits and obstacles. The region of our study is situated on the high level of central Alborz. This region is extended from 51°, 225' to 51°, 43' in eastern wing of Greenwich Meridian and also 35°, 47' to 36° in the north of equator. Above position includes special climate because of height effect, some of its features are semi mild summers and cold winters and also its variation slope is lower than 1 degree. However Jajorod and Ahar valleys have a great effect on region's ecology but this region is a combined area of mountain and valley. So, height differences affect on temperature variation and slope effects are quite obvious in this region. Besides Jajorod river, earth slope is various from 5 to 51% and a town, Darkia, around this complexity. Generally Geographical directions related to warm and cold slopes ,extended in all four main direction(south, west, east and north), can influence on the construction of effective tourism planning. This study presents the initial ecological studies in this field, moreover, people are more sensitive in weather changes and ecology situation, so the more we inform about these effects, the better we can manage daily activities. This research attempts to identify the role and factes of tourism climate their significance and impact & impact of natural environmental factors, particularly climatic elements such as effective temperature, rainfall and topography on the physical development , physical cities, particularly cities in the region like , Oshan and Fasham. In this article, analytical methods, field and library have been used and the results show the most important factors which affect normal physical development(tourism activite) such as temperature, ice, rainfall and topography. This research is based on effectiveness in tourism climatology data over a period of 12 years, the region's tourism potential areas of Iran and Tehran Oshan and Fasham, which is based on studies of descriptive - analytical using data collected from local weather stations

**KEYWORDS:** climate Tourism, comfort conditions , Oshan-Fasham, Iran

**INTRODUCTION**

Weather and climatic factors are major components of the tourism environment, and the success of tourist destinations around the world depends on these characteristics ([Rátz and Vizi, 2005](#)). Such serious measures widely discussed in relation to climate and tourism and the skeleton can be Inter- national Society of Biometeorology's Commission on Climate, Tourism and Recreation (ISBCCTR). The ISBCCTR was formed during the 15th Congress of the ISB held in November 1999 in Sydney, Australia ([De Freitas, 2003](#)). Facets of tourism climate their significance and impact is various (table1). In a study as "climate and the selection of destination for German tourist" which was

conducted by [Eshqi and Ghanbarzadeh, \(2003\)](#) has been considered some climate variables such as the temperature, rainfall, the number of freezing days and the number of sunny days that take attention in the selection of bound for raveling. Bioclimatic weather classification is based on thermal, physical and aesthetic facets and includes seven digits represent actual isothermal weather characteristics ([Anonymous, 2004a](#)). In a research which was conducted by [Anonymous, \(2004b\)](#), it revealed to consideration and tourism climate in Iran by using of tourist climate index (TCI). Results show that the best time of tourism for northern of Iran is spring and early in the autumn (including site of the study in this research). In a

survey study which done in Lordegan province, climate and natural tourist were investigated due to identification the desired and suitable condition of climate for tourism. According to this investigation, May, Jun, July and August, September and October have excursion priority in the way of climatic parameters, ordinary (Hamilton, 2002). In a research as investigation on thermal comfort in open space for using ecotourism in Babolsar province of indicated that suitable condition of bioclimatic has existed in the way of time from May until at the end of November in studied region (Blazejczyk and Matzarakis, 2007). In a study has considered the condition of climate environment during the day and night atkiakalayeh wetland in Langaroud province by using of Evanz [8]. Results showed that the months of March, April, May, August, September, October and November have climatic desired condition. Farajzadeh and Ahmadabadi, (2009) has conducted a research on recognition of human bioclimatic comfort at Masouleh basin by using of climatic elements such as temperature, humidity, the time of sunny and wind and Guini, Elgi Climo, gram bert-lankester, bikromakhdoom methods for determination of space and time limitation of bioclimatic comfort. Results indicated that the condition of comfort is ready in region from May to October and Bikromakhdoom methods have better efficiency towards other methods. In a study in Piranshahr province has been identified the period of comfort by using of PET and PMV index at two months of Jun and September (Rätz and Vizi, 2005). Zoning with preparing objectives emphasized on identification of potential and actual aptitudes of region for the recognition of sustained and unsustainable grounds for development.

**Table1:** various facts of tourism climate their significance and impact (De Freitas, 2003)

Facet of climate	Significance	Impact
<b>Aesthetic</b>		
Sunshine/cloudiness	Quality of experience	Enjoyment, attractiveness of site
Visibility	Quality of experience	Enjoyment, attractiveness of site
Day length	Convenience	Hours of daylight available
<b>Physical</b>		
Wind	Annoyance	Blown belongings, sand, dust...
Rain	Annoyance, charm	Wetting, reduced visibility and enjoyment
Snow	Winter sports/activities	Participation in sports/activities
Ice	Danger	Personal injury, damage to property
Severe weather	Annoyance, danger	All of above
Air quality	Annoyance, danger	Health, physical wellbeing, allergies
Ultraviolet radiation	Danger, attraction	Health, suntan, sunburn
<b>Thermal</b>		
Integrated effects of air temperature, wind, solar radiation, humidity, longwave radiation, metabolic rate	Thermal comfort	Environmental stress Physiological strain Hypothermia Hyperthermia
	Therapeutic, restorative	Potential for recuperation

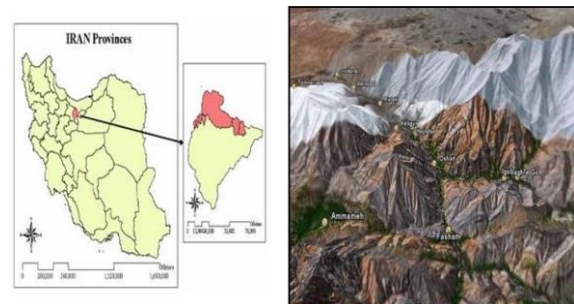
## STUDY AREA

Generally, ecotourism, mountainous and semi-mountainous climate using a beautiful landscape for tourism and recreation, the main attraction is OSHAN-FASHSAM Area especially in villages. So in general, the whole area could be considered as a natural source of OSHAN-FASHSAM area

(Natural resource) can be used for tourism, because this region is almost entirely from springs and rivers (water resources), gardens and trees (as cover), mountains and mountains (the rough) and the weather is good. The region of the study is a high level area at central Alborz (Table 2 and Figure 1). This region is extended from 51°, 225' to 51°, 43' in eastern wing of Greenwich Meridian and also 35°, 47' to 36° in the north of equator. Height effect on this climate is obvious. Some of its features are semi mild summers and cold winters and its variation slope is lower than 1 degree. Also Jajorod and Ahar valleys have a great effect on region's ecology. This region is a combined area of mountain and valley so the height difference effect is demonstrated as temperature difference and falling arte. Slope effects are completely obvious in this region. Besides Jajorod river, earth slope is various from 5 to 51% and around this complication, there are some towns like Darkia. Geographical directions are effective in eco system's quality and generally geographical directions from warm to cold. This situation can lead town construction process.

**Table 2:** Altitude of cities in the study area (Fasham area)

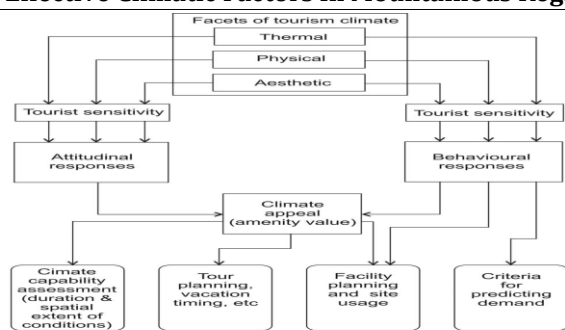
The name of area	Altitude (m)
Oshan	1900
Fasham	2000
Meygon	2350
Hajiabad	1850
Emame	2200
Ruteh and Zaygan	2300



**Figure 1:** Location of case study in Iran

## METHODOLOGY

In this study, based on Table 2 and Figure 2 climatology data over a period of 12 years and the impact on tourism activity in the region comes Oshan and Fasham, analytical methods, field and library have been used. In this study, using climate data on temperature, precipitation, wind and snow the synoptic stations of Tehran is to be used during the period of 1997 until 2010 are used. The next step in Given the importance of climatic factors affecting tourism comes from tourism, according to the following chart (figure 2)



**Figure 2:** Conceptual framework for the study of tourism climate showing the facets of climate and two independent methods (De Freitas, 2003)

In order to define an optimal method for confronting the Oshan-Fasham region, it has been tested several methods like analytical

method, field and library. Details are as follow. Generally, Meteorological stations are belonged to different organizations in Iran (Table 3), such as:

- i. Meteorological stations belong to Power ministry
- ii. Meteorological stations belong to Meteorology organization (related to transportation ministry)

There are 91 synoptic, climatology and evaporateology stations in Tehran's water closet basin and its surroundings, and there are totally 110 hydrometric stations, that just 31 stations have been shared with Tehran. In this evaluation we used following stations' information.

**Table 3:** Climatology stations in study area

Station	Latitude	Longitude	Altitude (meter from sub sea depth)	Station Type	Establishment year	Establisher Organization
Darakeh	35 49	51 23	1700	Hydrometry	1968	Water organization
Kan	35 47	51 18	1570	Hydrometry	1972	Water organization
Farahzad	35 47	51 20	1520	Hydrometry	1972	Water organization
Mehrabad	35 41	51 19	1391	Synoptic	1972	Meteorology organization
Abali	35 45 N	51 53 E	2462	Synoptic		Meteorology organization
Geophysics	35 47	51 18	1360	Climatology	1972	Meteorology organization
Firozkoh	35 B47	52 48	1900	Synoptic	1974	Meteorology organization
Sadabad	35 49	51 21	1700	Climatology	1972	Meteorology organization
karaj	35 55	50 54	1312	Synoptic	1995	Meteorology organization

Regarding to statistic limitations and more data application at some Meteorological stations, it has been selected a set of high quality meteorological stations (Table 4). In this process, it is been tried to use enough and appropriate station for better data such as indicator station. After evaluation of these stations' data, the best statistic period was determined between 1986 to 2004, and also we tried to reconstruct some ordered stations' statistics for next applications.

**Table 4:** Statistical reconstituted station with to take advantage of base station

Base station	Reconstituted station
Abali	Oshan
Hamband absard	Meygon
Abali	Fasham
Firozkoh	Hajiabad
Davamand and Hamand	Rodehen and Bomehen

**RESULTS AND DISCUSSION**

In this study, based on Table 1 and Figure 2 climatology data over a period of 12 years and the impact on tourism activity in the region comes Oshan and Fasham

**4.1. Annual Temperature**

Average of daily temperature in any region's temperature indicator has a special meaning,

although this parameter does not interfere directly, but because of several average databases, there is a bit frequency in various statistic periods. At the same time, comparison of 10, 20 and 35 average years of Tehran synoptic station can admit the above presumption. Table 5 shows comparison of weather's annual averages at different statistic periods.

**Table 5:** Comparison of annual average temperature in Tehran stations (°C)

Statistical period	Average of maximums	Average of minimums	Average
10	22.5	12.1	17.3
20	12.4	11.5	17
35	22.5	11.2	16.8

According to this table , the difference between weather's annual averages at different statistic periods is about 0.5 centigrade degrees. In the statistic scope field, this difference is very impressive. In Table 4, we have presented annual weather's temperature parameters at selected stations. It has seen that average daily weather is differing from at least 13.6 degrees at Darakeh station to 16.8 degrees at Tehran synoptic station. Regarding to stations height, presented in the Table 6, we found that heights' changes do not have any influence on

temperature frequencies in spite of its significant role. The other parameters such as highways, vegetation, locating around industrial regions, residential complex concentration and

etc have been added to temperature's changes process with height.

**Table 6:** Annual weather temperature in study area (Fasham) stations

Station	Altitude ( meter)	Averages			Absolute Temperature	
		Maximum	Minimum	Daily	Maximum	Minimum
kan	1570	21.9	11.2	16.6	36	-14.5
Mehrabad	1191	22.5	11.9	17.2	36.8	-14.8
Soleghan	1700	18	7.7	12.8	31.6	-13.1
Sadabad	1700	19	8.2	13.6	36.5	-15.5
Tehran exhibition	1541	19.8	9	14.4	39	-16.5
Geophysic	1360	20.1	10.2	15.1	39.5	-15.5
Abali	2450	12.5	3.2	8.2	39.4	-21.5
Oshan Fasham	1950	16.7	3	8.5	39.3	-23.5
Latyan	1560	21.1	8	14.5	41	-
Meygon	2400	13.2	0.2	7	35	-30

#### 4.2. Temperature of the region

In order to have correct comparison among mentioned region's temperature and roughness effect around Fasham city, new regions, like Bomehen, Abali and Roodehen have been added to previous database. The average of region's temperature at different heights was measured monthly and continually these measurements were reconstructed based upon current

information and statistic methods. In the statistic period between 1986 to 2004, the average of annual temperature for Fasham city was 8.3 centigrade degree and 11.8 centigrade degree for Bomehen. The comparison shows that ,the weather is warmer around 3.5 centigrade degree (Tables 7-9).

**Table 7:** The monthly Alterations of the temperature in Fasham and Bomehen cities (1993-2003)

Month	Average Temperature (Fasham)	Average Temperature (Bomehen)	Month	Average Temperature (Fasham)	Average Temperature (Bomehen)
January	-1	1	July	20.01	24.8
February	-0.6	-0.2	August	20.1	23.7
March	-0.8	4.5	September	15	19.6
April	8.1	11.4	October	9.1	12.7
May	10	15.4	November	3	6.5
June	21.1	17.1	December	0.9	1.3
Annual average				8.3	11.8

**Table 8:** the monthly Alterations of the temperature in Rodehen and Abali cities (1993-2003)

Month	Average Temperature (Rodehen)	Average Temperature (abali)	Month	Average Temperature (Rodehen)	Average Temperature (Abali)
January	-0.8	-3.7	July	20.2	20.1
February	-0.6	-3.2	August	20.3	20.55
March	-0.7	0.1	September	15.1	16.5
April	8.2	7.2	October	9.2	10
May	10.2	11.9	November	3.2	3.65
June	17.2	17.6	December	1	1.3
Annual average				8.5	8.2

**Table 9:** The monthly Alterations of the temperature in Meygon and Oshan cities (1993-2003)

Month	Average Temperature (Meygon)	Average Temperature (oshan)	Month	Average Temperature ( Meygon)	Average Temperature (Oshan)
January	-5	-0.7	July	18.5	20.1
February	-4.8	-0.5	August	18.3	20.2
March	-0.7	-0.6	September	14.6	15
April	5	8.1	October	8.8	9.1
May	11.1	10.1	November	3.9	3.1
June	15.8	17.1	December	-1.5	0.9
Annual average				7	4.8

The average of changes slope in monthly temperature at Fasham city had an interval between min -0.6 (February) to max 20.1 (August), however at Bomehen the minimum of temperature at February was -0.2 and the maximum temperature was 24.8 at July. Based on approved definition, the lowest temperature of climate decreases to zero centigrade degree or lower. Number of freezing days it should be say that based on information of meteorological organization is presented in the Tables 10 and 11. Fasham has 141 freezing days and this duration in Bomehen is 125 days.

**Table 10:** Average Glacier day

Month	Annual	
Number of Glaciations days average	Tjrish	69
	Exhibition	71
	Mehrabad	52
	Rodehen	139
	Geophysic	49
	Sadabad	87
	Bomehen	125
	Soleghan	92
	Fasham	141

**Table 11:** Average of weather temperature in different seasons (1993-2003)

Station	Fall	Winter	Spring	Summer
Meygon	2.8	-4.3	11.2	17.2
Latyan	12.4	3.1	17.1	25.7
Oshan and Fasham	5.2	-0.9	14.4	20.8

**4.3. Atmosphere fallings**

Generally, the most important air masses of the region are divided into two categories, summer and winter. West-east currents exist until mid of spring continually, but they are stopped on summer partly. Topographic condition of our case study causes plain-mountain winds and also topographic element at northern mountains of these two cities affects on the rate of resulted winds. This region belongs to basin of Jajorood Olia and formation of each region's ecology has a great influence on falling rate. According to present statistic data, annual falling of Fasham and Boomehen are 421.6mm and 319 mm respectively (Tables 12 and 13).

**Table 12:** Annual alterations of precipitation regimen in the Fasham and Bomehen cities (mm)

Month	Fasham city	Bomehen city	Month	Fasham city	Bomehen city
January	48.5	42.2	July	1.6	2.5
February	66.8	43	August	4.1	2
March	73.1	48	September	7.5	2.1
April	55.1	37	October	14	18.2
May	36.9	36	November	32.6	32.2
June	9.6	11.1	December	71.4	44.7
Annual average				421.6	319

**Table 13:** The annual alterations of precipitation regimen in the Rodehen and Abali cities (mm)

Month	Rodehen city	Abali city	Month	Rodehen city	Abali city
January	70.2	61.5	July	3.9	8.4
February	62.3	70.6	August	2.1	8.6
March	60.1	102.5	September	3.1	7.1
April	39.1	62.5	October	16.3	23.6
May	37.2	47.6	November	18.5	51.8
June	15.1	10.7	December	23	70.8
Annual average				350.9	525.20

Changes slope of most rainy month at Fasham has been changed from max: 73.1mm (March) to min: 1.3 mm (June). It has been reported that the rainiest month of Bomehen was at March (48mm) and the lowest rainy time is at August (2mm). Seasonal falling percentage in these two cities during autumn and winter is different from each other. Based on information in Table 12, around 44.75% of Fasham fallings is occurred during winter and Bomehen's atmosphere fallings percentage is around 48.73% during this season. It is interesting that; fallings amount in Bomehen during autumn is 0.44% more than Fasham city.

**Table 14:** Division of seasonal rain percent in Fasham and Bomehen cities

Rainy season	Fasham city	Bomehen City
winter	44.75	48.73
spring	24.13	25.1
summer	3.13	2.7
Fall	23.3	23.47

Changes slope of rainiest month of Meygon city has been differed from max: 103 mm March to min: 45.1 mm (September).while the rainiest month of Oshan (March) has reported 48 mm and the lowest time of falling during August (with 2mm). Seasonal falling percentage distribution in these two cities during autumn and winter is different with together. With observance to more than 30 ecological

categories, we preferred to use of Demarten and Ambrege categories in this study which their results are summarized at table 15 In formation process of each region's ecological face, there are various factors which some of them are recognized as manufacturing factors of ecology. In the studied region, the most significant manufacturing factors are height, latitude and immigrant air masses.

#### 4.4. Climate classification approach

In this approach, the ecology of the region is assessed based on following drought indicator. After measuring drought indicator, by using of Table 15, the type of ecologies of the region will be determined.

**Table 15:** Climate classification (Research findings)

System classification							
Kopan (i)	Karimi (i)	Gozoniviski (C)	Silianov (c)	Boloor (Rain)	Ambregeh (Q2) $Q = \frac{2000P}{M^2 - m^2}$	Demarton (i) $AI = \frac{P}{T + 10}$	region
Csb	Semiarid cold c i=cold	Semiarid cold C=44.91	Semiarid cold C0	Semiarid cold	Semiarid cold	Mediterranean	Oshan
Csb	Semiarid cold c i=cold	Semiarid cold C=44.91	Semiarid cold C0	Semiarid cold	Semiarid cold	Humid 23	Fasham
Dsb	Semiarid cold c i=cold	Semiarid cold C=44.91	Semiarid cold C0	Semiarid cold	Semi humid cold	Mediterranean	Meygon
Bsk	Semiarid cold c i=cold	Semiarid cold C=44.91	Semiarid cold C0	Semiarid cold	Semiarid cold	Mediterranean 20	Hajiabad

**Table 16:** Demarton and Anberge's climatological coefficients

Station	Average of annual precipitation (mm)	Average of temperature annual (cantigrad)	Demarton coefficients	Maximum temperature average in the hottest month ( Kelvin)	Minimum temperature average in the coldest month ( Kelvin)	Amberge coefficients
Mehrabad	263.3	17.2	10.1	309.8	272.2	23.7
Soleghan	385.2	12.8	16.7	304.8	270.8	39.3
Geophysic	309.9	15.1	12	312.5	271.7	26.5
Tehran Exhibition	367.9	14.4	15.5	301.2	271.6	31.5
Sadabad	389.4	13.6	16.8	309.5	264.8	30.8
Farahzad	385	12.9	16.8	309.5	264.8	30.4
Darakeh	426	14.22	15.61	312	269.6	44.9

**Table 17:** shows the results to assign the climate types

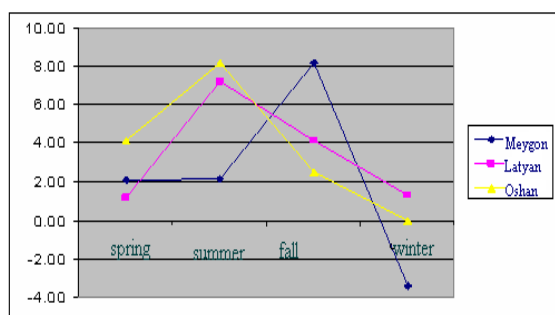
Station	Average of annual precipitation (mm)	Average of annual temperature (°C)	Demarton	Kopen	Amberge	Amberge coefficients
Mehrabad	263.3	17.2	arid	Bsk	Arid cold	23.7
Soleghan	385.2	12.8	Semiarid	Csa Mediterranean	Semi humid cold	39.3
Geophysic	309.9	15.1	Semiarid	Csa	Semiarid cold	26.5
Tehran exhibition	367.9	14.4	Semiarid	Csa	Semiarid cold	31.5
Sadabad	389.4	13.6	Semiarid	Csa	Semiarid cold	30.8
Farahzad	385	12.9	Semiarid	Csa	Semiarid cold	30.4
Darakeh	426	14.22	Semiarid	Csa	Semiarid cold	44.9

**Table 18:** Demarton and Amberge's climatical coefficients

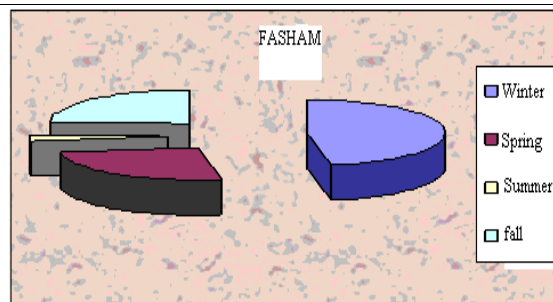
Station	Average of annual precipitation (mm)	Average of annual temperature (°C)	Demarton	Kopen	Amberge	Amberge coefficients
Mehrabad	263.3	17.2	arid	Bsk	Arid cold	23.7
Soleghan	385.2	12.8	Semiarid	Csa Mediterranean	Semi humid cold	39.3
Geophysic	309.9	15.1	Semiarid	Csa	Semiarid cold	26.5
Tehran exhibition	367.9	14.4	Semiarid	Csa	Semiarid cold	31.5
Sadabad	389.4	13.6	Semiarid	Csa	Semiarid cold	30.8
Farahzad	385	12.9	Semiarid	Csa	Semiarid cold	30.4
Darakeh	426	14.22	Semiarid	Csa	Semiarid cold	44.9

**Table 19:** glaciations day average

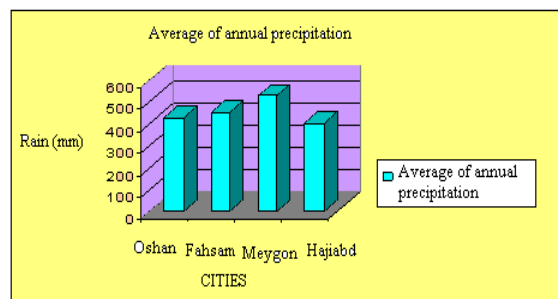
Month	Annual
Tjrish	69
Exhibition	71
Mehrabad	52
Rodehen	139
Geophysic	49
Sadabad	87
Bomehen	125
Soleghan	92
Fasham	141



**Figure 4:** The average of temperature in different seasons



**Figure 5:** the percent distribution of seasonal rain in Faham city.



**Figure 6:** Average of annual precipitation in study area

**Table 20:** the average rate of minimum, maximum and middle daily approximate humid

station	Humid daily average	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	annual
Latyan	Maximum	57	66	71	68	71	66	61	56	46	43	43	45	58
	Minimum	32	40	55	61	56	47	36	31	25	24	23	23	38
	Average	42	52	63	66	63	55	46	41	33	31	31	32	46
Meygon	Maximum	55	63	66	68	70	69	61	53	40	39	40	41	56
	Minimum	37	50	60	64	64	61	47	38	26	26	25	24	44
	Average	46	59	65	68	69	65	54	44	31	31	31	31	50
Oshan and Fasham	Maximum	59	71	79	79	79	76	64	57	47	44	48	48	62
	Minimum	30	44	63	71	69	58	39	32	23	21	22	22	41
	Average	44	64	70	75	77	71	52	43	30	28	30	32	53

**Table 21:** The table number 17 competition that show to results of classification

Station	Average of annual precipitation (mm)	Average of annual temperature (°C)	Demarton coefficients	Maximum temperature average in the hottest month ( Kelvin)	Minimum temperature average in the coldest month ( Kelvin)
Oshan	415	8.4	22.55	312.4	251.5
Fasham	421	8.3	23.00	312.3	249.5
Meygon	525	7	30.8	308	243
Hajiabad	400	10	20	313	-

**Table 22:** Matrix of internal factors affecting regional tourism

Weaknesses	Strengths	Development Dimensions
Lack of planning on how to utilize the features and capabilities. - Lack of coordination between the private sector and relevant organizations Tourism Distric	-Being able to limit investment Tourism in order to optimize the use of natural resource endowments and its introduction as a major hub for tourism in the province	Economic
-Lack of adequate sanitation facilities - The lack of skilled and trained forces in different parts of the region	Certain traditional customs and local culture and people	Social and cultural
Inadequate physical infrastructure and environment - Inadequate facilities for sports and recreation - Non-compliance with environmental cleanliness around the lake by tourists - Inadequate accommodation and welfare	-There are beautiful mountain landscapes - There are mountains around the lake, mountain climbing, hiking - Close to downtown and easy access to the lake for tourists - Having different capabilities sports (skiing, rock climbing, ...) - Having springs and fresh probe - Pristine to enjoy a quiet and relaxing tourists	Ecology
Lack of training people in how to use the capabilities of the ecotourism	According to authorities, the tourism districts and public participation	Institutional

## CONCLUSION

Due to the topography and climatic conditions of the region Oshan and Fasham and administrative and political capital of Tehran near the Iranian population with a proper plan of Excellence OSHAN-FASHAM area is a region with an extended tourism but also with unused touristic potential especially before and after the main touristic season. The topography of OSHAN-FASHAM area is very complex and highly variable (Figure 1). This holds many possibilities and not only mountain or summer activities during the main touristic season. Valuable ecosystems in the buffer zone are drawn in Rudbar Qsran studies and ecological models for use in a wide promenade along the protected area are proposed. Horticulture with regard to shortcomings in the area of tourism development can flourish & Horticulture and animal husbandry finally sustainable development region. Ecological models, including models of ecological tourism and recreation center has a wide promenade.

### 5.1. Lands for recreation center

#### 5.1.1. very suitable for intensive recreation (Class A)

Percent Slope: 0 to 5 percent. Cardinal directions: east (summer) Southern (winter). Tree density: 80 to 40. Climate and Weather: The average temperature in the summer and spring seasons using 25 21 ° C, the number of sunny days in a year, in spring and summer season, using more than 15 days per month. Soil texture: loam, soil structure: semi-transformed or transformed with intermediate grindings

#### 5.1.2. For recreation center (Level 2)

Climate and Weather: The average temperature in the summer and 21 ° C for spring 30. The number of sunny days in the months of spring and summer season, using 15 7 days a month. Percent Slope: 15 5 percent. Cardinal directions: north (summer), Western (Winter).

### 5.2. Conditions for recreation center

Percent slopes more than 15 percent. Cardinal directions: west and south (summer and spring), eastern and northern (winter). The geographic location of the facility, not just for winter ski or bus.

#### 5.2.1. Allow applications

- Centralized recreation facilities including camping, picnic without any construction
- User research and education structures without

- Rehabilitation and upgrading of any vegetation and vegetation appropriate to the ecological conditions of the region (the use of plants native to the area)
- Create lavatories septic tank

#### 5.2.2. User probation

- Means of communication to reach at least (or at least mostly pedestrian crossing for emergency vehicles such as fire, etc.)
- Small cottages for overnight stay and sheltered accommodation
- Lines of essential utilities (water and electricity) as required

#### 5.2.3. for forbidden

- Any building construction, especially hotels, motels, restaurants, etc. or Hrkarbry stumpage has led to the environmental or ecosystem damage.
- Create original ways, roads, etc.

### 5.3. Land suitable for extensive outdoor recreation

#### 5.3.1. very suitable for extensive outdoor recreation (Class 1)

Percent Slope: 15 to 25, under soil and rock like intensive recreation category (just for sidewalks, and Malraux is important otherwise the soil parameters is very important for the wide promenade). Climate and weather: the recreation center (Class A). Other parameters: does not matter much.

#### 5.3.2. suitable for a wide promenade (Level 2)

Percent Slope: 25 to 50 percent. Soil and rock conditions: the two-story recreation center (just for sidewalks, and Malraux is important. Otherwise soil parameters is very important for the wide promenade). Climate and weather: the recreation center (class 2).

Studies within Fasham, Maygoon tried to close Central Alborz Protected Area and Varjin, land unit specifications are as follows:

Slope zone ranges between 30 to 45 degrees in Central Alborz Protected Area and is also even between 6 to 100 degrees. In terms of climate, the average temperature in spring Maygoon 2/11 degrees in winter, 2/17 ° C, in the spring Oshan 4/14 degrees in the summer, 8/20 ° C is. Many sunny days in the month. average 14 to 15 days (about 327 hours in August), respectively. Vegetation generally bare or covered with forest steppes and scattered.

- 1 - Allow applications



- Authorized activities include: walking, climbing, winter sports, environmental education, wildlife viewing stations is created.
- Protection of slopes over 70 percent
- 2 - uses conditional
  - Creating climbing routes, hiking, walking and possibly bike to Linear Park and visit the Nature
  - Public facilities including drinking water supply, health services equipped with septic tanks, canopy, view
- 3 - uses Banned
  - Creating access roads and trails on steep slopes that cause degradation and soil erosion is
  - Create the main roads and road

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Sheikhi B. MSc thesis, Islamic Azad university, Rasht Branch, 2004.

According to the results, the following statements should be considered in urban planning:

A: choosing appropriate and optimal position

B: using elements in buildings adapted to climate circumstances.

C: considering strength of materials to endure weather factors

D: have a suitable plan, shape and design for buildings in order to climate changes

E: coefficients of a comfort-based architecture should be compatible with the climate

F: The most effective elements of climate and effective urban & tourism planning area are rainfall, temperature and ice.

G: The other effective and efficient climate factors in urban planning are altitude and slope.

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