

Climatic conditions and tourism industrial in Shirvan County.Mohammad Motamedi¹(PH.D) and Ali Gholamzadeh Doab^{2*}¹Department of Geography, Shirvan Branch, Islamic Azad University, Shirvan, Iran² Department of Geography, Shirvan Branch, Islamic Azad University, Shirvan, Iran**Email:**Motamedi45@gmail.com (**Corresponding Author**)

Abstract: Nowadays developing of tourist industrial make economic development in each area .tourism industrial has become one of the most important problems in the world. So it can make a lot of jobs .favorite climate conditions can develop it easily in that area. In this research we want to study the temperature, precipitation, freezing, develops tourism industrial in the county. The method in this study is descriptive-analytic and the necessary data are gain in documentary method. The research societies are Shirvan County. Then necessary data are gain from meteorological office Bojnord Brach data bank. Based on this research Shirvan County has a favorite climate for tourist attraction.

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Introduction

Tourist managers interest to increase the time of tourism hospitality by preparing favorite conditions because favorite conditions and facilities persuade tourists stay long time so it cause economic improvement. One of the most important factors for tourist absorbing is favorite climate conditions. Climatic factors are: temperature, humidity, precipitation, freezing. These factors determine climatic conditions .plans and animals and natural landscape are affected by climate conditions. These environmental ingredients have a great role to tourist attraction. Therefore climate condition has major roles on tourist industrial.

Conclusion of a research show that cyclones are serious threat to ecotourism and related infrastructure in susceptible parts of the tropics and subtropics,as demonstrated by the impact of Cyclone Larry on the Far North of Queensland March 2006(TTNQ2006). Human –induced changes in the affected landscape, such as tourism development, urbanization and deforestation, serve to amplify their environmental impact. Extreme or aberrant weather condition in some situation also provides responded to this ephemeral opportunity by temporarily altering itineraries to include the Lake Eyre region.a similar element of uncertainty and opportunism occur in the semi –arid landscapes of south-west Western Australia and Namibia where suitably timed episodes of unusually high precipitation result in exceptional wildflower displays.

Based on conclusion of a research a second major of biological threat to ecotorism is deliberate or inadvertent introduction of exotic flora and fauna that can potentially devastate native spices. Introduced

species have created problems in Kakadu National Park (Australia), whwew feral water buffalo and pigs have caused significant habitat disruption along with certain introduced South American plants.(low 2002). Park managers are also rightfully concerned about the arrival of the cane toad,which is capable of wreaking environmental havoc in Kakadu if it becomes established there.another case of several environmental damage from introduced animal is Macquarie Island,a subAntarctic Australian possession where more than 1000000 rabbits are causing destructive land slid and damage to king Penguin and albatross colonies by stripping hillsides of their vegetation cover (BBC News 2006).

Based on conclusion of a research on natural cave Alisadr,Sahoulán,Rudafshan and Yakhmorad, it was obvious that there is an logical relationship between tourist attraction and economic development and ultimately in social development.

Conclusion of a study on urban space show that since sustainable tourism improve welfare, hope and happiness among people, it can be like a great investment in economic environmental and socio-culture contexts for today and future, then it need and excellent program, appropriate management continuous training and learning and learning and finally believe in the sustainable tourism development.

Statement of problem

Unlimited growth of cities has caused some problems in the recent decades. The first issue is air pollution and the second is noise pollution in the urban cities. This impressions have caused citizens haven't a rest time so they interest to pass their leisure times in some places without these kinds of

pollutions. One of the places is natural environment and another is historical spaces. Shirvan County is the second city in North Khorasan .It has over 160000 populations.the population need some natural environment and historical places for having a leisure times in that area. The main question in this study is: is there favorite climatic conditions can support tourist industrial improvement in Shirvan County?

Necessity of the research

Tourist industrial development in each region can cause economic development because it affects business, handicrafts. Shirvan County has lied between an ecotourism region in the north and tourist religion in the east so it has a good situation for developing tourist industrial by developing tourist infrastructure in that region therefore the region can attract a lot of tourist per a year. The conclusion of this research helps tourist experts for presenting better plans by realizing the climatic conditions.

Method

This study was performed by descriptive-analytic method so we provided the necessary data include: temperature, precipitation, freezing in documentary manner. Then by using of climatic data which were gathered from North Khorasan Meteorology Organization, necessary data were analyzed by SPSS. Finally the results have shown by driving a few table and graphs.

Null hypothesis

It seems that the favorite climate condition for tourist absorbing in Shirvan County. research region situation Shirvan county has laid in North east of Khorasan between 37,03,37N,and 57,02, 58E.the region area 3904 Km and 152493 population live there .it is estimated that it reach to 1316640 people in 2020.

Climate

Shirvan county is lied between 37 03, 37 65 N and 57 02,58 18 E . Therefore it laid in mild climate zone .cold period take long time in the area and winter is very cold and summer enough hot .the difference between temperature at summer and winter is about 56 c .Monthly precipitation is very variable in different years. Based on De-Matron formula, the climate is semi-arid.

$$I = \rightarrow I = 11.29$$

I: De - Matron Drought coefficient

P: annual precipitation to mm

T: annual average temperature

Air mass

The major are effected the region climate include;

- The air mass which is coming from North Europe and bring a lot of humidity and it cause heavy snowing in that area in winter.

- 2- Another air mass which is coming from North West and generate majority of precipitation is Mediterranean air mass.

- 3- The third air mass that is coming from north and cause dry cold is Siberian air mass.

Temperature

Temperature on each area deepened on some factors such as: latitude, water surface, plants, topography, etc. based on the conclusion of a research in recent years the average of annual temperature is 13.32 c and the annual maximum average is 19.9 c and the annul minimum is 7.24 c .July with monthly average 24.8 c is the warmest month a January with monthly average 1.4 c is the coldest month. By a look at the trend of temperature change it found out that temperature has an ascending trend since January until July and it has a descending trend since august until January .absolute maximum 44.3 c is seen in July and absolute minimum 25 c is recorded for July and august. Table number (1) shows the monthly average temperature for Shirvan county.

Table (1): monthly averages temperature in Shirvan County (1977-2010)

Month	Annual
J	1.4
F	2.9
M	7.9
A	13
M	17.9
J	22.6
J	24.8
A	23.7
S	19.6
O	13.9
N	8.3
D	3.9
Annual	13.32

Precipitation

One of the most important climatic factors is precipitation because it has a great impression on temperature; plants and animals .These two factors can absorb tourists in each area. annual precipitation is 263.41 mm .January with 43 mm has the most precipitation and July with 3 mm has the less amount .36.39 percent of precipitation occur in winter and about 31.58 percent of precipitation is occur in spring and 22.75 percent of precipitation happens in autumn and 9.36 percent occur in summer.

Table (2): seasonal precipitation in Shirvan county

Seasons	Winter	Fall	Summer	Spring	Annual
Precipitation mm	95.87	59.93	24.41	83.20	263.41

Cyclone and anticyclone centers

Shirvan is effected by Siberian anticyclone which is coming from north regions .it cause to reduce air temperature and increase air pressure in the region .the low pressure Mediterranean air mass that is coming from east Mediterranean regions can generate a lot of precipitation. The cold dry wind that is known Ayesh, causes drought so it can damage gardens and fields in the region in the hot season. Another wind that is blowing from Caspian Sea toward east is known Dowlan wind. It has a lot of humidity so it causes to decrease the air temperature.

Relative humidity

Relative humidity is one of the most important factors in climatic condition in each area because it can effect on another factors such as evaporation, precipitation temperature and plants growth. The monthly averages of relative humidity along study period are:

Monthly average relative humidity in Shirvan County

Monthly	J	F	M	A	M	J	J	A	S	O	N	D	Annual
Relative	70.8	67	60.2	53.88	50.41	41.19	39.16	35.73	39.55	50.42	48.94	66.87	87

Evaporation

The rate of evaporation in each area depend on some factors like .temperature,precipitation, relative humidity, surface water resource, winds, plants. The amount of annual evaporation which is recorded for Shirvan County is 1821.7mm .the most evaporation is 322.7mm which was occurred in July. August with 316.6 has second degree. The least rate of evaporation is 44mm and it was happened in .there isn't any report of evaporation for freezing days.

Monthly average evaporation in Shirvan County

Monthly	J	F	M	A	M	J	J	A	S	O	N	D	Annual
Evaporatio	0	0	0	104.9	179.4	270.2	322.3	316.6	286.4	191.3	106.2	44.4	1821.7

Freezing days

Based on weather data has been gathered from Shirvan meteorological station, there is a freezing periods which lasts 7 months. It always begins since last of October and it continues until the first days of April. The freezing days occur in December, January, February and mars but the most of freezing days happened in January. The average of freezing days is (92) days per year. There isn't any freezing day in May, Jun, July, august and September.

Monthly average of freezing days in Shirvan County

Monthly	J	F	M	A	M	J	J	A	S	O	N	D	Annual
Freezing	23	21	11	2	0	0	0	0	0	3	10	17	87

Grasslands

Climatic elements like temperature, relative humidity, precipitation, evaporation, are very important for growing of plants in each area. There is about 165000 hectares grassland in Shirvan County .some of these grassland has second degree and their grass is massive so they can generate a lot of grass in hectare per year. This kind of grass land includes 30 hectares. The rest of the grass land in that area includes third or fourth kind of grasslands so their forage isn't enough for beasts. Some of the major plants in these grasslands are: camels- thorn, sagebrush, Alfalfa, etc.

Grassland classify	Number 1	Number 2	Number 3
Area /hectare	4000	14000	11020

Conclusion

As it was mentioned before the temperature is favorable in 6 month of year and there isn't any freezing in 5 months across the years. favorite months for tourist absorb and tourist hospitality are : may,jun, July,august,September,October,November, December . Siberian air mass has no impression in this area so there isn't any freezing day in these months but Mediterranean air mass has a good effect on temperature, precipitation, evaporation humidity so plants grow in this months. Favorite climatic conditions, beautiful natural landscape can attract so many tourists and also it can cause tourist hospitality.

Reference:

- Alijani, B2005, The climate of Iran, Payam Noor University
- Alizadeh, Amin, 1987, principles of applied hydrology .Astan qods razavi, Mashhad.
- Arabi Sabzevari,M & Amini,M 2010, tourism and economic growth,Iranian journal of tourism &hospitality Islamic Azad University Garmsar branch-Iran
- BBC News 2006, Rabbits” destroy” seabird habitat, 24 October, <http://news.bbc.co.uk>
- Evans, J.M 2007.The comfort triangles a new tool for bioclimatic design, thesis-Fahi, S & Motlaq, M 2010, Tourism in urban space: The transition to sustainable tourism Iranian journal of tourism &hospitality Islamic Azad University Garmsar branch-Iran
- Low, T 2002 Feral future: the untold story of Australia’s Exotic invaders, University of Chicago Press, Chicago.
- Meteorological office of North Khorasan 2011. - TTNQ 2006, TNQ tourism operations update 3, Tropical North Queensland, <http://tourism.Australia.com>.

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