Assessment of tourism comfort climate in Ardabil Province using TCI Index and GIS Technique

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Extended Abstract

Introduction

Today tourism industry comprises a large part of global economy and it is changing into the biggest and the most profitable industry through the world. Many countries have included it in their strategies and planning. Ardabil province is one of beautiful tourist destinations in northwest of Iran which attracts many tourists during all seasons. This province possesses noteworthy capabilities and potentials to create and develop tourism. Climatic condition is vital information for tourists. It is crucial to pay attention to climate features of an area and the impact that these features have on tourism formation. Climate and tourism are highly dependent on one another in such a way that having favorable climatic conditions is considered as one of the advantages and potential for tourism and many travelers take the climate conditions in selecting the time and location of their journey into consideration. Understanding the climate-threatening constraints and risks and knowledge of the attractions and latent potential of the climate features for any planning at various national, provincial and urban level including tourism are of great importance. Tourism Comfort Index (TCI) is an index that specifies climate effect on tourism systematically. The index utilizes climate elements such as temperature, precipitation, humidity, radiation and wind. In order to use the index, registered statistics in weather station is required.

Materials and methods

The present research is descriptive-analytical and aims to determine the most appropriate time for the presence of tourists in the region and the development of tourism plans. In this research, the tourism climate index (TCI) has been used to assess the climate of tourism and climatic attractions of Ardabil province from the tourism point of view. To this end, the statistics of required climatic parameters were extracted from the climatic data of 4 synoptic stations of the province during a period of 15 years (1996-2010). After calculating the TCI index for each month of the year, The Inverse Distance Weighting (IDW) method was used to zone the comfort conditions of tourism climate of the province and to convert point data of the stations to surface data, and finally, the TCI map was obtained for the entire province.

Results and discussion

The tourism climatic condition of Ardabil province was evaluated on a monthly basis using the tourism climate

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index (TCI), and the results of the surveys were presented in the form of a zoned map for each month separately. The findings of the research indicated that the months of April, May, June, July, August, September, October and November with good, very good, excellent and ideal ratings have the best conditions for the presence of tourists in the region and the of December, January, February and March as the cold months of the year, have unfavorable climatic comfort conditions in the region and the province, does not have an appropriate condition for the presence of tourists.

Conclusion

Ardabil province is distinguished from other regions due to the diversity of its climate and its unique natural, historical and cultural attractions, and may be considered as the country's tourism hub. Due to the numerous capabilities of the province in attracting tourists, it is necessary to recognize and evaluate the climate of comfort through acceptable scientific methods in order to systematically determine the impact of climatic factors on tourists' activities. The results indicate that the comfort climate of the province is very diverse in different seasons of the year, so that in the warm seasons, the southern regions of the province have a favorable situation and in the cold seasons of the year this trend changes and the northern areas of the province have favorable situation.

Keywords: Tourism Climatic Comfort, GIS, TCI index, Ardabil province.