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An Investigation of Climatical Conditions of Tourism in Northern Provinces of Caspian Sea, Using TCI and Cluster Analysis and Geographic Information System (GIS)

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Abstract

Of considerable factors in the development of tourism industry of each geographic region are climatic conditions. The present research has examined tourism climate in domain of the country, northern provinces, surrounding Caspian sea (Golestan, Guilan and Mazandaran provinces), using Miczochofscky, index of touristic climate (TCI) within geographic information system (GIS) environment. Finally, the conditions of the tourism climate of study provinces were evaluated through cluster analysis. In performing the research, statistics and data from 14 climatologic stations within northern provinces were utilized. Preliminary analysis was carried out, using seven climatologic elements, and involved in the tourism climatic index as well as statistical software. Then, the values of TCI were derived from studying cities, using the

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relations of Miczochofscky model. At the final step, TCI values were put in the of geographic information system (ArcGIS). Using inverse distance weighted (IDW) for mean finding, TCI values were expanded to the provinces. The zoning maps were prepared based on a monthly scale for northern provinces. The results of this research show that on spring, the eastern side is more appropriate than western side regarding tourist climate. In summer, only Siahbishe city of Mazandaran province possesses ideal conditions for tourism. In the fall season, month of Aban is more desirable than other two months and two cities of Mansil and Muravetappe possesses the best conditions for tourism. Considering the tourism climatology no proper and ideal condition is observed during winter. Eventually, four clusters were identified for studying cities, using cluster analysis.

Keywords: Northern Provinces, Tourism climatology index, Cluster analysis, Geographic Information System (GIS).

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