

ABSTRACTS

Dr. J. Khoshhal
Department of Physical Geography
Isfahan University

Dr. M. Khosravi
Department of Physical Geography
Sistan & Balouchestan University

H. Nazaripour
Department of Physical Geography
Sistan & Balouchestan University

Identification Humidity Resources and Course of Super Heavy Precipitation In Bushehr Province

In this paper, humidity advection maps of sea level and 850 hpa and geopotential height of sea level pressure and 500 hpa level were drawn and studied for 5 types of above 100 mm precipitation in the Bushehr province.

Analyses of humidity advection maps showed that humidity resources for these precipitations are tropical regions of the eastern Africa, Indian Ocean, Arabian Sea and Adan Gulf, Oman Sea, Red Sea and Persian Gulf. The major courses of moisture entrance to the region are southern, south-eastern and south-western directions.

On the surface level, the Siberian and Saudi Arabian high pressure systems, the east European dynamic low pressure center, the Sudan low pressure system and European high pressure center, and in the lower and middle levels of atmosphere the east Saudi Arabian anticyclone, north Africa trough and Spain anticyclone systems are the effective systems for transferring of humidity to the Bushehr region.

Keywords: Super Heavy Precipitation, Bushehr, Humidity Advection, Synoptic, Geopotential Height.

Dr. M. H. Rameshat
Department of Geography
Isfahan University

Dr. A. Seyf
Department of Geography
Isfahan University

S. S. Shah-Zeidi
Department of Physical Geography
Isfahan University

M. Entezari
Department of Physical Geography
Isfahan University

The Influence of Active Tectonic on Morphology of Derakhtangan Alluvial Fan of (Shahdad in Kerman)

The alluvial fan of the Shahdad in Derakhtangan River is one of the biggest alluvial in perfectly dry region in the north- north eastern Kerman. This alluvial fan is formed by the effect of different materials erosion in to the drainage basin of Derakhtangan river and laying these materials in the final part of this drainage basin called Lut plain. Tectonic acts with efficacy in the place of the settlements of the alluvial fan. The region, which is being studied, is one of the active tectonic regions. The severe tectonic activities in the studied region have been proved by several evidences. One of the most important evidences in the region is the various faults in the area and imply to fan alluvium (from head to end), study line profile in past and present. The most important fault of the region is the great fault of "Nay band", the southern fault of "shahdad" and the series of faults having the direction of "north-western to south-eastern and northern and Southern". The drainage basin of alluvial fan of the Derakhtangan river leads from east to "Kavir-lut" and from west to the mountains of "Baghe-Bala and Kalisaky" from north to the altitudes of "Dahran" and from south to the mountains of "Jeftan". The aim of this article is the morphology of Derakhtangan river fan indicative on neotectonics in the region.

Keywords: Tectonic, Alluvial Fan, Alluvial Fan Shape, Tectonic Evidence.

Dr. M. Rajabi
Department of Physical Geography
Tabriz University

A. Shiri Tarzam
Department of Physical Geography
Tabriz University

Salt Tectonic and its Geomorphical Manifestation in Azarbaijan **Case Study: Salt Domes of North - West Tabriz**

Salt domes are one of attractive landform in some regions. This phenomenon exists in different section of Iran. For example in Zagros, Qom, Semnan and Azarbaijan. As much as one-quarter of the Azarbaijan areas is underlain by Miocen evaporates beds (upper red formation). Where evaporate beds are thick, they have many important geomorphological consequences.

Formation of salt domes Azarbaijan is related to many factors include halotectonism, halokinetic, magmatism and etc. Salt domes of Azarbaijan are distributed in four region (Miyaneh, north of Tabriz, west Mishou and Kharvaneh). From this region, salt domes of north Tabriz have many important geomorphological and environmental effects. Salt tectonics in this area have different consequences include the development of salt domes, the production of folds and fault and associated drainage modification, the creep of salt as salt glaciers and widespread solution, subsidence and karst formation.

Keywords: Salt Tectonic, Salt Dome, Geomorphic Manifestation, Azarbaijan, North West of Tabriz.

Dr. M. Montazeri
Department of Geography
Islamic Azad University of Najaf-Abad Branch

Dr. H.A. Ghayour
Department of Geography
Isfahan University

A Comparative Analysis of Precipitation and Drought **Trends in Caspian's Basin**

In order to evaluate climatic drought trend in 23 hydrological basins of Caspian Sea, monthly precipitation maps of the basin for 588 months (1951-1999) have been prepared. Based on these maps Standard Precipitation Index has been calculated and considered as drought indicator for the basins.

Standard Precipitation Index of 23 hydrological basins of Caspian Sea has been analyzed using cluster analysis. According to agglomerative hierarchical clustering analysis there are four drought regions in Caspian's basin.

A nonparametric Mann-Kendal trend analysis applied to precipitation series and SPI separately. For precipitation time series basins showed that Jan., May, and Dec. haven't significant trends. At the same time 5 basins in February, July have significant positive trend and 11 basins in March and September have significant negative trends.

A nonparametric Mann-Kendal trend analysis for SPI showed that May, none basins haven't significant trends. The highest significant trend showed in July and August.

Keywords: Drought, Trend, Precipitation, Standardized Precipitation Index, Caspian's Basin, Linear Regression.

Dr. M. R. Farzin
Department of Economic
Allameh Tabatabaei University

S. Safari
PH.D Candidate of Tourism IT

The Recognition of Tourism Destination Management System and It's Developing Challenges in Iran

DMS is the collection of computerized information about a specific destination. DMSs mostly include information about the attractions and facilities; also they have some applications that cause ease reservation. DMOs manage these systems. This management does by governmental units, non-governmental ones or combination of them.

In this paper, authors did a comprehensive research on the DMS's applications, performances and stake holders. After that, they studies E-Commerce's platforms, status of Iran's pioneer organizations in this field and their required information. At the end, they did some domination researches for examination of their hypothesis in implementation evaluation of Iran's DMS.

This study shows that Iran's tourist trustee organizations (ancient cultural bureau, handcraft bureau and tourism bureau) don't have specific structure for managing and marketing destination. The process of abroad destination marketing and domestic developing purposes activities are the core activities in DMOs. In Iran's tourist trustee organizations we have them in lower efficiency.

However, there is no chance to implement DMS in Iran, because of non existing E-Commerce platforms.

Keywords: Destination Management System (DMS), Destination Management Organization (DMO), E- Tourism.

Dr.M. Maghsoudi
Department of Geography
Tehran University

Dr. M. Yamani
Department of Geography
Tehran University

M. Salari
Department of Geography
Tehran University

Estimation of Erosion and Sediment in Vazneh Basin via Assessment of Effective Variables with use of GIS

As soil is one of the main natural resources of any country and main source for human nutrition, an assessment of the erosion and especially an appraisal of effective parameters are necessary. The research method employed is based on library, field study and on using quantitative models of erosion and sediment estimation. In this research GIS (ILWIS, Arc GIS) softwares have been employed as well. Since various parameters are systematically influential in basins and their recognition as an effective factors on the amount of erosion and sediment of great importance, therefore, among various methods in estimation of erosion and sediment, PSIAC method, which has the most effective parameters, has been selected and the environmental parameters have been included in relation to this method.

Based on PSIAC method, the Vazneh basin is situated in above-the-average level of erosion. Its sediment amounts to $449.16 \text{ m}^3/\text{km}^2$ equal 10.86 ton per hectare yearly.

Keywords: Geomorphology, Erosion, Sediment, PESIAC Model, GIS, Vazneh Basin

I. Babaeian^{*1,2}**Z. Najafi-Nik**³**F. Zabol Abbasi**^{1,2}**Dr. M. Habibi Nokhandan**^{2,4}**H. Adab**^{1,2}**S. Malbousi**^{1,2}**1- Climate Change Research, Department, Climatology Research****2- Climatological Research Institute****3- Kerman Meteorological Organization****4- Climatological Research Institute**

Climate Change Assessment over Iran During 2010-2039 by Using Statistical Downscaling of ECHO- G Model

Because of low spacial resolution of General Circulation Models, they can not predict weather and climate accurately. In this regards Weather Generator models have been developed by climatologists to downscale GCM outputs into station scale. In this research, grided meteorological outputs of ECHO-G model including precipitation, maximum temperature, minimum temperature and radiation have been downscaled over 43 synoptic stations of Iran during 2010-2039 with A1 scenario. Results show that the mean annual precipitation will be decreased by 9 percent, increasing of mean annual temperature by 0.5 degree of centigrade during period of 2010-2039. Maximum increase predicted to occur over North Khorasan, West and East Azarbaijan. Also thresholds of heavy and extreme rainfalls will be increased by 13 and 39 percent, respectively. In this regards, in the future period, the rainfalls will be heavy and flash- flooded and there is a significant decrease in the amount of snow falls and shift of precipitation in to the end of cold season.

Keywords: Climate Change, General Circulation Model, Downscaling, Extreme Events, Iran.

Dr. A. Amir-Ahmadi
Department of Geography
Sabzevar, Tarbiat Moallem University

M. Shiran
Department of Geography
Sabzevar, Tarbiat Moallem University

The Application of HEC- HMS Model on the Sensitivity Analysis of the Geomorphical Variables Effective on Karvan Plain Flood

The routing of water ways and local situation of sub-basins effect of exiting flood in basin. As a result, for each flood controlling activity, the effect of them on basin should have been determined. Then, they should be classified based on their role on making exit flood. In this research, the hydrologic modeling by means of HEC- HMS software has been used in each sub-basin and its logical area to rebuild basin model and investigate the routing of flood hydrograph in and to analyze the sensitivity of flood peak of basin to the variation of three manageable geomorphologic parameters in flood water including slope, CN and area. The statistical results of this study show that the contribution of sub-basins in the are not necessarily relevant to the of flood peak sub-basins and the sub-basins which have larger flood peak are not necessarily more effective in exiting flood of a basin. Therefore by using this procedure and using Single Successive Sub watershed Elimination (SSSE) in Karvan model by means of HEC- HMS software, it has been identified that sub-basin S1 has the most effective role and S8 the least effective one in flood peak of a basin; however, S18 which has the least flood peak is in nineteenth in the contribution in the basin flood. Moreover, the sensitivity analysis of sub-basins to the manageable and controllable variants shows that by routing effect, the sub-basins have different behaviours to the variations of these variants. In the slope and CN analysis, it was observable that increasing these two parameters in their logical area had decreasing effect on the flood peak of the some sub- basins (reverse effect). However, their effect on the flood peak of a basin was direct in other sub basins .In slope sensitivity analysis, the variation of area in all sub basins were directly related to the flood peak of the whole basin; however, the sub basins with more area were not necessarily much effective to the flood peak of the whole basin in their variation. For example, sub-basin S7 having more area than basins S3, S2 which is less sensitive to the area variant.

Keywords: HEC- HMS Software, Analyze Sensitivity, Flood Routing, Karvan Plain.