

ABSTRACTS

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Zoning the Climatic Potentials of Dry-Farming Wheat Cultivation in the West Azarbaijan (Iran)

Recognition of climate and research about climatic requirements of farm plants can be regarded as main factors in the production process. By carrying out research in agro climatology one can assign climatic potential capabilities in various regions and use their optimum models. This comprehensive research was carried out on the basis of long-term data of climatology factors. For this purpose we have used GIS software's.

The parameters are being used in this study: probability of 300mm annual precipitation occurrence and more, autumn and spring rainfall with 75% occurrence probability, occurrence probability of appropriate temperature (8-14 T⁰c) for germination period of wheat, occurrence probability of daily maximum temperature of 25 and more in flowering stage and occurrence probability of 30 T⁰c in nourishing stages.

We used the precipitation data of 26 stations and the temperature data of 13 stations for doing research. In order to access different flourishing stages of wheat growth, we used Growth Days - Degree (GD-D) method being designed in FORTRAN.

Using wheat growing requirements (including desired climatic conditions) the information layers were classified and the weight value of each polygon assigned. Finally by overlaying the information layers, Makhdoom's "classified weighted model" the final map for the West Azarbaijan dry-farming wheat production was designed.

The last results of this study show the fact that the importance of each of temperature and precipitation factors differ according to different flourishing stages in different regions of the province. The possibility of recognizing the utility rates of wheat production would be provided through overlaying various effective layers of this yield in GIS environment.

Keywords: Climatic Potentials, West Azarbaijan, Dry-Farming Wheat, GIS.

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New Town of Pardis and its Role in Decentralization of Tehran Metropolis

A new city is a city which is designed and constructed as a strategy for urban development in order to attract overflow population of metropolitan cities. Tehran, as the largest and most populated city in Iran, is the focus of population attraction. Regarding the facts that it has restricted on facilities and urban development and does not have the capability of attracting more population, new cities were created around it, such as Pardis. New city of Pardis was prearranged to be located 35 km northeast of Tehran with about 2600 hectares area in an unfruitful land in which urban life and dwelling dates back to less than 8 years ago. The Studies on finding the appropriate location for this city started in 1986. The prospect of this new city was predicted for 200,000 people but now (2006) only 52,000 people are living there.

In this research, the function of new city of Pardis to attract some population of Tehran has been analyzed. The following hypotheses have been tested in order to see the aims of research:

- 1- It seems that management has been influenced on achieving the aims of Pardis (attracting some part of Tehran' population and deconcentration).
- 2- It appears that attraction of Tehran's population to the other new cities has been a factor to do not achieving the aims.
- 3-Lack of urban structures and employment in this city has played some role not to attract enough population.

Finally it is concluded that new city of Pardis has not been successful in performing the role it was planned to (deconcentration), furthermore it has added to the problems of Tehran metropolis. Some suggestions have been offered to help reach the first aims deconcentration of Tehran metropolis designing new city of Pardis.

Keywords:New City of Pardis,Deconcentration, Tehran Metropolis, Overflow Population, Urban Development.

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Yazd Geotopes and its Attractions

Although tourism was an aspect in social field but in this age the man view about tourism is more economic and they try to increase its contribution in national income. It is mentioned that in decades, tourism activities has been much growth to the other man activities.

Formalizing the words as agrotourism, archaeological tourism, ecotourism, heal thiness tourism, sport tourism, geotourism and cultural tourism, religious tourism, economical tourism, political tourism, scenery tourism, vacation tourism show that we can develop our activities in this field. Among them, geotourism is a form of cultural - environmental tourism that can develop in areas with important geological monuments which are exploited in order to attract visitors with special interests. Geotourism is based on the magic of discovery and the power of authenticity experienced through the contact with the natural heritage of our land. Being the creative link between Nature and Culture in a region, geotourism can answer new tourist quests and trends, thereby contributing to the development of many regions in the country.

The Yazd region constitutes one of the most significant environmental and cultural reserves on Iran, strewn with unique and significant natural geological monuments that are called Geotopes.

The Geotopes are the meeting places of elements recording the geological history of each region. They are the irrefutable witnesses of an everlasting evolution of life on earth, such as volcanoes, caves, gorges, fossilized areas, large geological rifts, ancient mines, geological formations or landscapes chiseled by natural forces throughout the geological ages. Such sites have a special scientific and aesthetic value and could become areas with significant tourist interest.

Although it is a term only recently introduced in the terminology of local development, geotourism has already found application in many areas in Yazd with significant prospects for dynamic continuation and expansion.

Recent efforts to record, upgrade and exploit a number of geological sites in Yazd have produced significant results; the erratic rocks on the Fakhr-Abad, the cirques of Tezergan on Tezergan, the glacial gorge in Deh-Bala, the underground natural dam on Mehriz and Sand dam in Ashkezar and, the granite rocks and the marble mine, the gorge in Taft, the Kavir and glassi desert in Abar Kooh and Darangier to mention are cased Yazd to be as a natural history museum .

Keyword: Yazd, Geotops, Geopark, Ecotourism , Cirques, Erratic Rocks.

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The Role of Small Cities in the Equilibration of Rural Settlement System of Yazd Province

Nowadays, unbalancing and inequality of spaces among urban and rural settlements are important subjects of economists and regional programmers. Existing economical divergence, development poles and dispersion of rural regions are the effects of this phenomenon.

So accessing to balance and consistent expansion in regional space, establishing regular and ordered sequences are major needs and pay attention to small towns is one of the ways to equilibration this situation.

This study has done to recognition the disposition pattern of residents, quality of centralization and population distribution in Yazd during 1966 to 2006. At first urban centralization models for measurement the population centralization in residents net and population elasticity model for determining importance of small towns in regional balancing are used. Then for recognition the quality of village dispersion and determining their centrality, the model of analyzing the nearest proximity, feature model and the Interaction Theory were used.

According to results, the rate of population centralization in urban network in 2006 was about 3.7 and showed polar dispersion in Yazd. Where as in the same year, only 20 percent of Yazd population lived in 1390 villages. Among them, only 30 percent had population more than 20 families. Settlement pattern of these residents is clustery with definite spaces according to computations of the nearest proximity (0.73) leveling of rural spaces and determination of their centralization has done according to quality of dispersion and their size in region. 69 rural centers in small spaces of village and 13 small towns have connector role among rural levels and massive urban levels (urban network). Finally, suggestions are presented for balance dispersion of Yazd especially coordinated dispersion of urban network with rural network.

Keywords: Settlement System, Balancing, Small Towns, Rural Settlements, Yazd Province.

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Precipitation Regions of Iran

In this paper 366 daily isohyet maps of Iran were created using Kriging method. Mean daily precipitation data for 333 synoptic stations has been used. Spatial resolution of these maps was 18Km*18Km. So 5214 pixels cover the country and temporal and spatial behavior of precipitation could be represented by a 5214*366 matrix. A cluster analysis applied on this matrix and eight different precipitation regions detected. The spatial configuration of these regions showed that amount of precipitation more or less depends to the topography but its timing is mainly controlled by regression and transgression of synoptic systems.

Keywords: Precipitation, Cluster Analysis, Precipitation Region.

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Analysis of the Basic Causes of Formation of Marginal Settlement Regions in Isfahan (The Case Study : Arzenan and Darak)

The aim of the present study is to analyze the basic causes of formation of marginal settlement in Isfahan, particularly in Arzenan and Darak regions.

Following the research hypotheses, this study examined the basic causes of the formation of marginal settlement such as economical factors, natural factors, facilities, education, hygienic factors, housing simplicity and ethnicity. The methodology was a survey method with documentary review. The sampling method which, is used Quota and randomly studied between 384 inhabitants of Arzenan and Darak area.

The independent variables were economical factors (attractions and repellents), damaging natural factors, facilities, housing simplicity, ethnicity, job, and race and the dependent variable was marginal settlement. For analyzing the data, SPSS Software was employed.

The results revealed a direct statistically meaningful relationship between economical factors (attractions and repellents), facilities, housing, ethnicity, race, and job and marginal settlement. It also revealed that there is no statistically meaningful relationship between damaging natural factors and marginal settlement.

Keywords: Marginal Settlement, Migration, Ethnicity, Economical Attractions and Repellents, Damaging Natural Factors, Job, and Housing and Land Simplicity.

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A Synoptic Patterns Analysis of Winter Freezing in Iran

Frost and freezing is a weather phenomenon that occurs each year with irretrievable damages on disparate parts. The occurrence of this phenomenon in the mountainous region roads causes many problems to transportation part and road accident. The atmosphere circulation patterns play a major role in freezing occurrence, duration and spatial distribution especially in moderate zones. In this study, in order to analysing synoptic patterns of winter freezing in Iran, the daily data in 12 oclock UTC related to 500 hpa level and surface level pressure (SLP) during 1960-2000 in winter (December, January and February) was extracted in 2.5 degrees coincidence renovation data collection of National Center Environmental Prediction (NCEP). The selection limit consists of 408 points between latitude of 20°-60° north and longitude of 20°-80° east. In this article mode S and Varimax circulation was used to identify weather types. The related variable was merged using PCA and dimensions of matrix were reduced, and K-means method was used to classify weather types. Result shows that CP2, CP3, CP4 weather types characterized by the lowest temperature with northerly winds and highest advection occurs frost and freezing in Iran.

Keywords: Weather Types, Freezing, Clustering, Atmospheric Circulation Patterns, Iran.

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The Role of Tectonic Activities on Configuration and Conical Enlargement of the South Foothills of Aladagh

Conics are some geomorphological shapes which have been formed especially in the south foothills on the Aladagh hights by various factors. These factors caused shaping in the past and enlargement at present conditions. One of these factors in shaping and enlargement is tectonic activities.

These activities are considered from two point, the positive effects which have made substituing, shaping and expanding conics and negative consequences which have created fragmental and limited forms.

In spite of that, the role of tectonic activities on configuration and conical enlargement of the south foothills of Aladagh is reviewed by regard to shaping, substituing, appearance, extent, thickness of sediments and fragmental conics.

Keywords: Tectonic Activities, Conical, South Foothills of Aladagh, Geomorphological Shapes.