Explaining Suitable Strategies to Non-Migration Population in Rural Settlements: Case Study of Solok Rural District Hashtroud Township

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Abstrac

Today the great number of emigrations and the villages getting evacuated from skilled and youth is a social- economical inexpressiveness in our country. Migration to condition development countries cause falter conditions to principle one the one hand and create E economic, Social and Cultural problems to destination for cause non migration extra possibilities with measure migration. Literature Development Showing to Countries for Condition Development that Migration Village- Town have Placed Negation many on Zone Offset and Destination therefore to Duration Decades past to be Accomplished, many Efforts to set Recognition this Circumstances and Search Efforts of Direct Reduce this Difficult, that unfortunately in proof loss standpoint Guidance and Concrete not Accompaniment with Success. To Standpoint Guidance with Empathic Sustainable development one of Passes Reduce Migration of Village to Town to be Constant Quality Existence Population village inclusive Opportunity at Equation and Preservation Cultural Versatility, increase Collective Sense and citizenry, Opportunity to Quality and to Improve Quality life and type change Economic Activities that have introduced Gradation Quality life. This Paper with use Implement Honorific based in SWOT Model, Points Strength inner Weakness, Opportunities and Threats out to Compound Residences Villages central Zone solook Rural District Hashtroud Township making clear with Concrete vision, and Efforts Guidance have Showed to Direct Resolving of Problems in Migration to Villages Case Study. Consequence show can be to via development Interpret and also participation method to planes rural development also strengthening mentality and expansion motive grounds hopefulness to for village to strengthen to this way motive non migration to villages have strengthened.

Keyword: Migration; Village-Town; Solok Rural direc; Hashtroud Township.

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Analysis of the Wind Speed Trend over Iran

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Abstract

The aim of this study is the analysis of surface wind speed in monthly and annual times scales in Iran using four different versions of the Mann-Kendall method: i) conventional Mann-Kendall method (MK1); ii) Mann-Kendall method following removing the effect of significant lag-1 auto-correlation (MK2); iii) Mann-Kendall method after the removing the effect of all significant auto-correlation coefficients (MK3); and Mann-Kendall method with considering the Hurst coefficient (MK4). Data used here are wind speed records in both monthly and annual time scales in the period of 1966-2005. For this purpose, 22 stations were selected across Iran's area. Nonparametric Sen's method was used for estimation of wind trend line slope. Results showed that although a combination of positive and negative trends observed both in monthly and annual time scales, however, the number of stations having the negative trends were more than that of the positive trends. In the annual time scale, the strongest negative trend line slope was -0.074 $ms^{-1}y^{-1}$ belonging to Fasa station, and the strongest positive trend line slope was 0.141 $ms^{-1}y^{-1}$ belonging to Zabol station. In monthly time scale, the strongest negative trend line slope was -0.1 $ms^{-1}y^{-1}$ observed in Fasa station and the the strongest positive trend line slope was 0.18 $ms^{-1}y^{-1}$ observed in Zabol station. Results showed that the median of the trend line slopes for all months (except February and November) was negative. Therefore, in general, it can be concluded that in the most of stations in Iran wind speed trend in all months (except February and November) was negative.

Keywords: Autocorrelation Coefficient; Hurst Coefficient; Iran; Trend; Wind speed.

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Suitability Analysis of Regional Parks Using GIS: Case Study of Jiroft City

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Abstract

Urban population growth causes serious consequences for the environment. Here is where creating macro green space as the most important balancing factor becomes a necessity. Therefore, an undeniable need in urbanization and future development of urban space is identifying the site of green space and urban parks. Land suitability analysis is a process identifying an appropriate site in a certain area for certain land use. In the present research, land suitability analysis is used to examine the suitability of regional parks in Jiroft City. Hence, first the current situation of urban green space is examined on the basis of spatial of factors (slope, distance from water source) and situational factors (distance from historical buildings, distance from river, distance from downtown, price) and then regional park of suitability is analyzed by using GIS. Suitable green spaces are presented and finally sites for constructing new green spaces are identified. The results of this research showed that the regional parks of Jiroft City are situated in appropriate site and the allocated lands for constructing new regional parks need revision.

Keywords: Regional park; Land suitability analysis; GIS.

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Trend Analysis of Extreme Temperature Indices in the North West of Iran

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Abstract

Natural environment is regulated according to the climatic conditions. Human communities are forced to adjust themselves to these conditions. Identifying the intensity, frequency and timing of climatic events can help solve the environmental problems and ease the coherent planning to mitigate these events changing behavior. To achieve this objective in the Northwest of Iran, daily minimum and maximum temperature data from 13 stations were obtained from the Meteorological Organization of Iran in the quality control format for the existing data period. Sixteen Extreme indices were extracted by RClimDex package and their changing behavior was checked by Mann – Kendall method.

The results showed that the frequency of cold indices decreased but the frequency of extreme warm indices increased during the study period. According to the results of wavelet analysis all the extreme cold indices showed a significant periodic fluctuations of 2 to 4 years. Among the warm indices only the warmest days index (TXx) showed 2 to 4 years fluctuation and the number of tropical nights (TR20) exhibited 4 to 8 years of significant fluctuation.

Keywords: Extreme climatic indices, Daily minimum and maximum temperature, Trend analysis, Wavelet analysis, North West of Iran.

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Landslide Hazard Zoning in Bijar Town Using Analytical Hierarchy Method (AHP)

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Abstract

Landslides and mountainside instabilities are major dangers for human activities which often cause the waste of economic resources and damage to properties and installations. These dangers occur in natural slopes or in slopes changed by man. This study mainly aims at identifying the factors influencing landslides happening in the city of Bijar, Kordestan Province, and at evaluating the regions having the potentiality of landslide for preparing localization map using the analytical hierarchy process (AHP) Model. In the present study, first employing field visits, questionnaires, geological and topographic maps, and reviewing the studies carried out, nine factors including the variables of: height from the sea level, degree of slope, direction of slope, geology, the distance from the linear elements (fault, road, river), rainfall, and land use were employed. Then affecting factors were binary compared using analytical method by indicating the weight of each factor as indicator for their effects in occurrence of landslide. Accordingly, the landslide zonation hazard map was prepared to the use of weighed information layer and weighted coefficient of each factor. Results of this study show That slope factor of the relative weight of 0.307, and Landuse factor with the relative weight of 0.218 The most effective respectively And the relative weight of rainfall factor 0.019 the lowest impact on Landslides have on the city of Bijar. Thus, 75.489 % of the area of the region have faced very low-risk, 10.037% with low risk, 3.628% with average risk, 4.062% with high risk, and 6.784% with very high risk.

Keywords: Hazard zoningn; Land slide; Analytical Hierarchy Process (AHP); Bijar city.

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The Effect of Government Programs on Urban Sprawl of Tehran

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Abstract

The urban sustainable development is economic efficiency, social justice and environmental preservation so one of the its important conditions is utilization from urban land, otherwise cities suffer from urban sprawl. So far, several models are presented for understanding the form of city and its dispersion measure. This research attempts to analyze urban spraw lof Tehran by different models such as urban density, the quartile distribution, temperature distribution, balance, concentration and temperature Holdrn model in different decades, and then considers the impact of government programs for different factors of urban sprawl. Reslts showed that with the lack of efficient management of land and illegal discrimination in Tehran there is urban sprael. Therefore, according to the principles of sustainable urban development Tehran can push toward sustainability. But, policies can control further spread of this phenomenon in Tehran and in all cities of the country.

Keywords: Urban sprawl; The form of city; Government programs; Tehran.

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Comparison of ANN and SVM methods in extraction Land Use/ Land Cover maps from Landsat 8 satellite image (Case Study: Sufi Chay Basin)

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Abstract

Land use and land cover maps are necessary for planning and natural resources management. In the way, remote sensing data have special place because of providing update data, repetitive covers and low cost images. Therefore Optimum Land Image/ Thermal Infrared Sensor were used to map land-use and land-cover in 1 and 2 level. Because of, this images are new thus radiometric correct was used ERDAS software model maker. Also Normalize Difference Vegetation Index (NDVI), Bare Soil Index (BI) and Principal Component Analyze (PCA) were used as inputs to improve classification accuracy. On the other hand kernels functional and polynomial ranks of Support Vector Machine method evaluated in side others bands and the best result of SVM method compared with Artificial Neural Network (ANN). The results indicated that SVM method has accuracy: 92% with Kappa Coefficient: 0.91 and ANN method has accuracy: 89% with kappa coefficient: 0.87 also SVM method has a good performance in the regions that, classes show similar spectral behavior.

Keyword: Land Use; Landsat 8; Vegetation and Bare Soil Indexes; ANN; SVM.

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Evaluation of Environmental Capability of West Azerbaijan Province in Canola Cultivation Based on AHP Method and TOPSIS Methods

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Abstract

Canola is the world third leading oil seed after soybean and oil palm by producing 15 percent of the global plant oil. Climate, topography and lands capability are the most important environmental factors on which the crop production capability in a region depends. Therefore by evaluating these factors one can identify suitable lands for canola cultivation. In the present study, the climatological data such as temperature, precipitation, growth degree day, relative humidity, freezing days, and sunshine hours were collected from the West Azerbaijan province synoptic and rain gauge stations (since their installation untill 1388) which were associated with the phenologic stages of canola growth. In addition to the climatological data, earth resources like topographic layers, lands capability, soil depth and land-use were analyzed focusing on the climatological and ecological requirements of canola. After generalizing the data and processing by using ArcGIS, their corresponding information layers were derived. In order to prioritize and assess the criteria and information layers in relation to each other, the multi criteria decision method was employed based on analytical hierarchy process. Then, combination and spatial analysis of the information layers using TOPSIS model and GIS capabilities were done and the final capability ecological evaluation layer for canola cultivation was produced. Based on the obtained results, the province lands were divided into four categories of highly suitable (%18.6), suitable (%34.4), moderate (%32.1) and weak (%14.7) lands on the basis of the environmental and climatologocal potentials for canola cultivation.

Keywords: West Azerbaijan; Climate; Canola; AHP; GIS; TOPSIS

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Synoptic Analysis of Winter Frosts in Sistan Region (Case Study: The Frost January 2008)

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Abstract

Frost is one of the natural disasters that is usually are associated with financial losses and even mortality. The atmospheric circulation systems have a main role in the occurrence, severity and spatial distribution of frost especially in temperate regions. The purpose of this research is the detection and investigation of synoptic conditions simultaneous with occurrence of winter frosts in Sistan region. The method used in this analysis approach is peripheral circulation. For these purposes, two databases (surface and atmospheric) were required. For surface data, climate data from synoptic weather stations of Zabol and Zahak were used as a representative of the regional climate. The longest and most severe frost was selected during the last decade (2010-2000). Second database of sea level data and maps of 850 and 500 Hp levels was prepared from the National Center for Environmental Prediction (NCEP) and National Center for Atmospheric Research (NCAR). Spatial coverage of weather data is between 30 until 90 degrees east longitudes and 10 until 50 degrees north latitude. For representing the weather stream lines maps, Grads software was used. The results showed that cyclonic activity on the Balkhash Lake prepared the situation for downfall of cold air of high latitude and western flow of trough to region and caused frost in the Sistan region. Transferred axis of trough at the eastern regions and the above conditions caused more frost persistence. The most severe frost in Sistan region tll, place in the western part of trough and the flux of northern cold air. The factor that has created these conditions is the pressure gradient between the southern and northern regions of Sistan, especially South East of Sistan low-pressure system which led to the establishment of west part of trough to the region.

Keywords: Frost; Synoptic Analysis; Central Pressure; Sistan

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Estimating the Outdoor Recreation Value of Marakan Protected Area Churches (Case Study: Saint Stephanus Church)

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Abstract

According to change global approach of protected areas management plan in relation to tourist attraction in order to fund this areas, the aim of this study was to determine the Outdoor Recreation value of Saint Stephanus church one of the famous churches of Marakan Protected Area that located in boarder between East and West Azerbaijan Province . Estimating the outdoor recreation value of this church can be effective in foresighting the needs, eliminating the shortages, and developing of tourism. The objectives of this study were to estimate outdoor recreation Value of Saint Stephanus Church with Contingent Valuation Method (CVM) and separation of influential factors on visitors' willingness to pay (WTP) using Heckman two-stage model. Required data was gathered through questionnaires and face-to-face interviews with 321 visitors of the church in 2013. Results showed that 52% of the visitors were willing to pay money for visiting the church. Variables of income, education levels, family size, and sexuality were effective in visitors' WTP acceptance, and variables of income, family size, education level, age and the Visitor satisfaction from amenities were effective in the rates of WTP. The average of WTP and the annual outdoor recreation value of Saint Stephanus Church was estimated at about 2445 Rials and 317 million Rials, respectively. Therefore, with respect to the great importance and value of Saint Stephanus Church from the view point of visitors, will required that planners to have more attention to this area for tourism development and increasing the number of tourists with increasing facilities and the financing of Marakan protected area and other protected areas.

Keywords: Contingent Valuation; Marakan, Outdoor Recreation Value; Saint Stephanus church; Two stages Heckman; Willingness to Pay.

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Revitalization Strategies for Historical Squares, Case Study: Sahebabad Square

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Abstract

Humans have allocated some places to group activities during their historical life. One of these places is square. In spite of mass memories from squares the significance of square as the identity source of city, the vanishing of historical squares is important challenge in existing cities. With this regard, the purpose of this study is to identify strategies for regeneration of Tabriz SahebAbad historical square. This study is an applied research with descriptive-explanatory methodology. Data were collected by questionnaire from 30 experts and analyzed by SWOT technique. The SWOT technique was used in order to identify the weakness and strengthens opportunities and threats in three stages based on the matrix of inner factors and matrix of external factors and comparative matrix. According to the results of this study, there are 6 strengthening points and 9 weakness points in inner factors. There are also 9 factors as the external threats and 7 factors as external opportunities. The results show that, while Saheb Abad square currently is faced with some threats and weaknesses, it is possible fot it to become an important cultural- historical center.

Keyword: Square; Historical square; Revitalization; Sahebabad square, Tabriz.

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Trend Analysis of Precipitation and River Flow in the Qara-Su River Basin

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Abstract

Being aware of decreasing or increasing trend of precipitation and discharge in watersheds has very important role in water resources management and the subjects relating to water engineering. In this study, the trend of precipitation and discharge at Qara-su River Basin in Ardebil has been studied in monthly, seasonal and annual timescales over the period from 1351 to 1382. For investigation of the existence or absence of a trend, Mann-Kendall test was used by detecting effects of all auto correlations coefficients, and Sen's estimator was used at different significant level to evaluate the magnitude of the test. The results of the calculated values for precipitation and discharge data set indicated that the trend of the Qara-su River discharge was decreasing for both stations in annual timescale. Also, decreasing trend of discharge dataset was found for seasonal timescale in spring, autumn and winter in which significant trend belonged to winter season. Maximum value of decrease for discharge is for Doustbiglo station in spring (-0.62 m^3/s), and the minimum value of decrease for discharge in summer for this station, too. Furthermore, there was not significant trend for precipitation dataset in monthly, seasonal, and annual timescales.

Keywords: Trend, Discharge, Precipitation, Mann-Kendall, Qara-Su basin.

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The Relationship between Sea Surface Temperature (SST) in Pacific Ocean and Total Ozone Variations in Iran

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Abstract

Variations of ozone layer that measure by name of total ozone (TO) oscillation are one of the modern humane concerns as one of causes or manifestations of climate change. In this research total ozone oscillation in relationship with Sea Surface Temperature (SST) in Pacific Ocean has been studied. For this aim monthly mean data from the satellites in point by 1*1.25 degree of geographical distance and monthly mean of NINO1+2, NINO3, NINO4 and NINO3.4 indices have been used. The results show that total ozone in positive\negative occurrence of SST has been increased\decreased in all Iranian areas. The asynchronous relation of effects SST indices have been tested on (TO). The strongest relations in lag time of months 5, 1, 5 and 2 respectively are for NINO1+2, NINO3, NINO4 and NINO3 indices. The correlation of NINIO1+2 with TO are better than other indices and the strongest correlation was in west and northwest of Iran. The average of synchronous and asynchronous (5 months lag time) correlation coefficient between NINIO1+2 with TO on all areas of Iran was respectively $r_{=}$+0.55 and $r_{=}$-0.621. The in synchronous correlation was direct and significant at 0.05 level in 86 precent of areas of Iran but asynchronous correlation was indirect and significant at 0.05 level The relation of NINO4 with (TO) was the weakest correlation in other indices.

Keywords: Iran, Significantce Test; Sea Surface Temperature (SST); Total Ozone.

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Analysis of Spatial Distribution of Public Libraries in the City of Yazd

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Abstract

Library is a very significant center for transferring information and it has an important role in improving peoples' knowledge and awareness. However, due to some external and internal factor some libraries have a lot of applicants while some have few ones. One of the most important and useful external factors on the number of the applicants in the public libraries is the location and geographical distribution of them in the city texture. Accordingly this article is going to analyze the spatial distribution of public library in Yazd by using software like GIS, Excel, SPSS and descriptive-analytic methods Entropy and Gini index are used for evaluating balanced distribution, Moran and Gary index used for public libraries' scattering and general G index used for their kinds of concentration based on techniques related to spatial auto-correlation. "The nearest neighborhood" method is used for determining the kind of public libraries' distribution and numerical Taxonomy method used for investigating the number of different areas in the city which have this service. Necessary data such as libraries' maps, eight-side district of Yazd and related information are gathered by library method. The results show that there are some imbalances and disparity in the distribution of libraries' in Yazd. Also, their distribution and concentration model is random or scattered with low concentration (cold spot) which expresses the fact that areas with less availability are located close to each other. In addition, different areas do not have the same facilities in their public libraries and 3-2 district has the most facilities while 1-3 districts have the least ones.

Keywords: Public libraries; Spatial distribution; Spatial auto-correlation; Yazd city and appropriate access

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