The Study of Realationship between Scientific Research and the Needs of Iranian Rural Communities with an Emphasize on Geography and Rural Planning Dissertations

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Abstract

The first prerequisite for the success of the rural researches is correct understanding and suitable perception of the needs of local communities. The part of the country's rural researches includes thesis and dissertation of students in geography and rural planning. In this article, we examine the relationship between the thesis and dissertation with the needs of rural communities and try to provide a model for rural researches in Iran. The methodology is descriptive-analytical which was conducted to combine two documentary and survey methods. The statistical population includes student population (N=161) and faculty stafs (N=20) in the field of rural geography and planning at three universities (University of Tehran, Shahid Beheshti University and Tarbiat Modarres University). Research results show that the majority of academic advisors in theses/dissertations believed that there was a relationship between the subjects selected for the research and the needs of rural communities but the results of the most important factor in selecting theses/dissertations's subject showed that students have less attention to the needs of rural communities. Financial constraints (financial problems of students), weighing 0.249 was the most important limitation of the students to choose issues on rural communities' needs. Accordingly, the proposed model for carrying out rural research in Iran was presented.

Keywords: Assessment of relation; Needs of rural communities; Scientific research; MA & Ph.D. Theses/dissertations; Rural geography and planning.

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The Relationship between Synoptic Systems Influencing Heavy Rainfall in the Northern Low Rainfall Region

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Abstract

In this study, heavy rainfall of northern low rainfall region has been analyzed using environmental to circulation approach. In order to analyze these types of rains, Asfezari rain data base is used. A base with daily ranfall includes 15992 days, from 1340.1.1 to 1383. 1437 daily precipitation maps of northern low rainfall region were created using Kriging method. Mean daily precipitation data for this station has been used. Spatial resolution of these maps were 18 Km*18 Km. So 1406 pixels cover the northern low rainfall region and temporal and spatial behavior of precipitation could be represented by a 1406*362 matrix. We selected 100 days of the heavy rainfall from IRIMO data base. A cluster analysis was applied on this matrix and four different circulation patterns were actived. As a result, 100 occurrences of broad and heavy rainfall have been assimilated according to the sea level pressure, humidiy flux convergensy, stream function and front function exorbitance. Spatial configuration of these patterns showed that the main reason of these rainfalls had been the siberian and Black Sea unticyclones, troughs of Red Sea and Persian Gulf.

Keywords: Heavy rainfall; Same rainfall maps; Sea level pressure; Cluster analysis; Humidity flux.

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Evaluating of Development Potential of Desert Tourism and Its Impact on Socio-economic and Physical Dimension in Rural Settlements (Case Study: Villages of Khoor-o-Biabanak Township)

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Abstract

The term "sustainable" is nowadays widely used in order to describe a world in which the human and natural systems could live together for a long time. Attention to this issue and the necessity to evaluate the ecological potential and economic, social, and cultural capacities in various topics especially in tourism forces the development planners to identify the sources from different dimensions and to a logical and right exploitation. Due to this necessity, the ecologic potential was evaluated by using the systematic method and the Makhdoum Model. Then, the socio-economic indices were rated using Analytical Hierarchy Process (AHP) and the socio-economic capacities of the Khoor-o-iabanak tourism site were added to the previous layers using the ELECTRE model. Moreover, the bioclimatic comfort for tourism was calculated using the TCI model. In the final step the basic strategies for developing the tourism sector in the study region were offered by using the SWOT strategic planning model. Results show the region mentioned has high potential for tourism developments-especially for desert and ethnic-cultural tourism. Also, the preparation for tourism development in the region could be provided through logical and rational planning and with consideration of concepts and teachings of sustainable tourism.

Keywords: Potential Evaluation; Desert Tourism; Khoor-o-Biabanak Township.

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Analysis of Urban Sprawl of the City of Mashhad in Recent Decades (1956-2006) and Its Impact on Soil Resources

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Abstract

Urban spatial growth and its patterns is one of the most important issues in urban planning. During the time, the patterns of spatial distributions which are called urban form are changing because of urban dynamics. Urban sprawl is one of the most unstable forms the cities have ever experienced. The city of Mashhad as the second metropolis of Iran and the case study of this research is not exceted of these problems. Various methods such as aerial photographs, maps of the organizations, soil and topographic maps, GIS and SPSS software are used in this research. The result of survey showed a rapid and unplanned sprawl growth has happened for the Mashhad city in the recent decades (1956-2006) that have had some adverse effects on soil resources.

The results show from 1956 to 2006 around 27747.8 hectares of Mashhad suburb lands from different classes were changed into urban landuse for good. Actually, this rapid and unplanned urban growth of Mashhad has destroyed 10,288 ha (37 percent) in class I, 6233 ha (22%) in class III, 9089 ha (33%) in Class IV and 2,147 ha (7.7 percent) in Class VI.

Keywords: Urban Sprawl; Mashhad; Soil Resource; Peri Urban Agriculture; Sustainable Forms.

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The Analysis of Felling Security Social in Urban Tourists (Case study: The Domestic Tourist of Esfahan City)

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RAbstract

Most cities have the potential and ability to attract tourists, especially at the national and international level. These cities attract large number of tourists every year. Therefore, it is essential to investigate the social security of tourists in the cities. The Esfahan city has many tourist attractions and every year a large number of tourists are attracted. Tourism industry is threat by lack of security. Insecurity among tourists reduces the number of tourists. The main objective of this study was to analyze the social security of tourists in the Esfahan city.

This method of this research is a descriptive-analytical. The data have been collected by libraries and also used questionnaires. To analyze the data, descriptive and analytical statistics and SPSS software is used. The Statistical population of research is domestic tourists that have come in Esfahan in 1390 year. For sampling used Cochran sampling formula that 384 samples were obtained, to ensure that this figure was increased to 390 persons. The sampling method is a multistage random cluster. The results of research show that education level, old, education, marital status, income level, the role of the police and the media, have the greatest impact on social security in urban tourists. The physical condition of Esfahan city has minimal impact on social security in urban tourists. Also, 47 percent of tourists were satisfied in the level of social security in Esfahan city. And 18% were dissatisfied.In the end of, more than 80 percent of respondents (urban tourists) believe that come back to visit of Esfahan in the future.

Keyword: Urban tourists; Social security; Urban security; City of Esfahan.

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Evaluating and Spatial Analysing of Land use in Kazeroon City by Using of GIS

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Abstract

Following the emigrant increasing and city population growth in the world especially in developing countries, the land use has special importance. Because by dedicating the land to essential uses, we can assure the major purposes in urban planning like: health, beauty, welfare, etc. In this research, we have tried to analyze and study the land use of Kazeroon city as the view point of quality and quantity, localizing and compatibility and concord then with popular standard per capita in urban plans.

The research method in current study is descriptive-analytical. Information needed for this research was obtained through field research, library research, interviews, map 1/2000 and map 1/25000 Kazeooun city. The data analysis was done by using AHP models and index overlaps in GIS medium. The results of this study show that only four cases of these uses have per capita higher than standard level. But other uses have special shortages and among them, transportation and warehouse and green land uses have some problems from the view point of quality like: spatial distribution, desirability, compatibility etc. with, regard to per capita shortage in existing condition (1385) and also population prediction for time horizon of 1400, the essential area for each uses in existing condition and in year 1400 have been evaluated and the suitable limits to make new uses presented.

Keywords: Land use; Urban planning; Evaluation; GIS, Kazeroon city.

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Subjective Quality of Life Assessment based on the Perceptions of Residents Case Study (Hashemi Neighborhood in Tehran)

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Abstract

QOL is a multidimensional concept that has an important effect on residents living within a residence and the most important effect is residential satisfaction. Therefore in the planning for these contexts, identifying the criteria affecting the satisfaction of residents and how effective each of these criteria is a key priority. The aim of this study is to identify this issue.

Methods In this thesis, according to the research problem, is causal correlation. Technique used in this study is Hierarchical Multiple Regression (HMR). Criteria will be selected based on objective related to study quality of life in the residence environment with reviewed other studies and criteria models. Method of organization of Criteria in this study is up and down and for each macro criterion, sub criteria are brought, these criteria are pattern of questions. In the Criteria analysis stage, the last category criteria are used to calculate the regression and correlation between criteria is taken into account to rate their influence on each other.

Keywords: Quality of life; Subjective quality of life; Satisfaction; Tehran

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Spatial Evaluation of Urban Sprawl with an Emphasize on Landuse Charges, Using Satellite Imagery (Case Studey of Urmia)

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Abstract

Urban sprawl is an urban growth patterns regardless of the consequences and economic, social and environmental effects. This exterior growth of the city belongs to the type of urban development that in critics view causes the loss of agricultural land, destruction of open and green spaces, energy waste and changes of land use. There are several methods for detecting changes in a region by using satellite imagery; each one having both advantages and limitations. Fuzzy ARTMAP method of compliance is one of these methods. The main purpose of this article is describing land use change detection in Urmia city over a period of 27 years. For this purpose TM sensor of Landsat satellite in the period of 1984-2011was selected. After referencing images by using Fuzzy ARTMAP classification method (Cross Tab) land use changes and how the sprawl city were classified and urban sprawl was predicted for the year 1400 by using Markov chains and a combination of cellular automate. The results show that 17188.56 acres of land has been changed during this period in Urmia and most of land use changes have occurred on irrigated agricultural lands. 7672.41 acres of irrigated agricultural land has been declined. The study show that in the year 1400 approximately 2408.55 acres will add to built-in land; which may cause change in land use in Urmia city and instability in the optimal distribution of services and access for city residents.

Keywords: Urban sprawl; Land use change; Satellite imagery; Fuzzy ARTMAP method; Markov chains and Cellular Automate; Urmia.

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Study of Level of Rural Development by TOPSIS Technique (A Case Study: Aslandoz Region- Parsabad)

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Abstract

Today use of economic, social, cultural and health indicators can create suitable standards to determine rural situation and elimination of the problems and challenges for achieving to economic welfare and social health. The aim of this research is the study of development extent of rural residents in Aslandoz region of Parsabad city. The numbers of residents and indictors used were 118 and 27 respectively. Methodological approach of this study was a descriptive research. The TOPSIS method was used for country residency ranking. Results showed that based on calculated lowest C_i^* it was 0.083 for Gheshlaghe gedaylo and the highest C_i^* was 0.47 for Aslandoz city. The C_i^* average was 0.16. The range of developed level of rural residencies has been estimated 0.58, also 13 residencies were developing and 103 residencies were undeveloped. Analysis of variance showed that there was significant difference between the C_i^* averages of development levels.

Keywords: Development level; TOPSIS; Aslandoz region.

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The Study of Efficiency of Street Networks in Earthquake (Case Study of Zones 1 and 5 of Tabriz Detailed Pland)

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Abstract

Large earthquakes usually cause huge damages to human life. Street network vulnerability makes the rescue operation to encounter serious difficulties especially at the first 72 hours after the incident. Today, physical expansion and high density of great cities, due to no attention to hierarchical street network, narrow access roads, large distance from medical care centers and location at areas with high seismic risk, would lead to a perilous and unpredictable situation in case of the earthquake. Occurrence of earthquakes with large magnitude would destroy the functionality of street networks and cause large amount of casualties and major financial damages. In Tabriz city, the areas of first and fifth zones are equal to 3327 hectares. The area of first and fifth zones is over 2844 and 483 ha respectively. According to current estimates, the population of these zones is equal to over 458939 people. In this research using 12 indexes such as: land use, width of roads, height of buildings, street inclusion, population and construction density, buildings area, quality, materials and antiquity of building, access to medical centers, distance and proximity to major faults vulnerability degree of street networks in zones 1 and 5 of detailed plan of Tabriz against the earthquake is calculated through overlaying maps and data in combination with IHWP method and GIS. The article concludes that buildings alongside the streets with high population and building density, low building quality, far to rescue centers and high level of inclusion represent high rate of vulnerability, compared with other buildings. Also highways and streets with substantial width and low building and population density hold little values of vulnerability. By moving on from east to west of the zones, the vulnerability increases. This vulnerability of streets is in

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high level in the central zones. Therefore, the existing street networks in the center will be unable to perform their role at the case of occurrence of earthquake.

Keywords: Vulnerability; Earthquake; Street Network; Tabriz, IHWP; GIS.

Landslide Hazard Mapping in Goijabel of Ahar Using GIS

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Abstract

This article aims to evaluate sensitivity of Goijabel basin lands in landsliding based on GIS and AHP. The main reason for selection of this basin for research is to observe the current landsliding in the region by the author and environmental preservation attitude of the authors. This basin is one of the sub-basins of Aharchi in area of 7406 Hectares with geographical statues of 46,47,21/26 to 46,56,53/64 east longitude and 38,21, 42/13 to 38,27,39/04 north latitude. The criteria selected for analysis of landsliding sensitivity in the study basin involve nine parameters (slope, aspect, height, lithology, fault, road, landuse, precipitation and main water ways) extracted from basic maps, field studies and spot satellite images and their primary valuation was conducted by using GIS techniques in five layers relative to the effect of each measure on incidence of landsliding. Then pair comparison of the layers was carried out by using Mariyoni attached program (AHP extension) and final map of the land sensitivity in landsliding was extracted. The results of landsliding sensitivity analysis in Goijabel basin showed that the most effective factor in land sliding is lithology with weight of 0.3113 according to the highest weight and then the height with minimum weight of 0.0178 is the criterion with lowest effect in landsliding. Also the analysis of landsliding danger in the study basin shows that endangered lands with high sliding capability involve 1222 ha which cover %16.5 of the total regions.

Keywords: Goijabel; Landslide; AHP; GIS.

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Trend Analysis and Estimating Return Periods of Extreme Temperature and Precipitation in Tabriz

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Abstract

Trend analysis of 27 indices related with extreme temperature and precipitation during 1961-2011 were conducted in Tabriz using the non-parametric Mann-Kendall test and Sen's Estimator Slope methods. Furthermore Generalized Extreme Value distribution fitted to observational extreme events. Values of quantiles of the variables were estimated for different return periods. Results indicated that during the past half century, trends of indices for summer days, tropical nights and warm nights were upward and statistically significant. Trends of indices related to ice days and cool days were downward and significant. Minimum values of daily minimum and maximum temperature in year indicate significant increasing trends. Indices of number of days with precipitation greater or equal to 10 and 15 mm, consecutive wet days, total precipitation in wet days and total precipitation when rainfall is greater than 95 and 99 percentiles have experienced significant decreasing trends. After fitting GEV distribution to annual values of daily minimum and maximum temperature as well as daily maximum precipitation in Tabriz Growth curves and Q-Q plats were illustrated. Investigation of plots indicated that this distribution function has more capability in fitting of time series of extreme value even in tails of the distribution.

Keywords: Extreme Climate Events; Nonparametric Mann-Kendal Test; Generalized Extreme Value Distribution; Return Period; Tabriz.

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Integration of Kernel model (KDE) and AHP Model in order to Evaluate the Earthquake Risk in Urban Squatter and Timeworn Textures by Geographic Information System (GIS) A Case Study in Tabriz (municipal areas No. 1 and 5)

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Abstract

Evaluation of the vulnerability is one of the most important challenges facing metropolises in Iran. Sensitivity of the issue is duplicated when the city is not only timeworn and includes squatter areas, but also is exposed to natural disasters such as earthquake and flood. Zoning the risk of earthquake and its modeling by advanced techniques regarding the vulnerability level of cities is inevitable. In Tabriz, diversity of urban textures, proximity to fault lines and lack of precision and revision on the subject, increases the vulnerabilit of such textures besides squatter textures. This project studies the municipal areas (1 and 5) in Tabriz city, regarding the nature of earthquake and its relation with four factors: population density, building density, quality of buildings and types of materials. Furthermore, the relation of vulnerability due to earthquake has been studied and modeled taking the advantage of the GIS robust technique with integrating Kernel Density Estimation model (KDE) and Analytical Hierarchy Possess model (AHP) in order to determine the vulnerable areas more precisely with an emphasis on residential application.

Keywords: Risk Evaluation; Earthquake; Urban timeworn textures; GIS; Kernel Density Estimation model (KDE); Analytical Hierarchy Possess model (AHP); Modeling; Spatial Analysis.

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The Relationship between Urban Households Energy and Transportation Demand with Environmental Pollution through Greenhouse Gas Emissions in the Provinces of Iran

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Abstract

Using integrated data and Heckman two-stage approach, this study investigates the relationship between energy demand (including electricity, petrol and natural gas) and transportation (annual consumption of gasoline by cars owners) with environmental pollution. To do so, the cost-income data for approximately 14000 urban households is used over the year 2009. Following estimating the demand function of energy and transportation, we have estimated the coefficients of pollution emissions originated from consumption of electricity, gas and gasoline. Then we calculated the pollution emission of these three energy careers. The results indicate that income has a positive and significant effect on consumption in all three types of energy. The results also show that the highest rate of carbon dioxide emissions associated with the electricity, and gasoline has the lowest rate of carbon dioxide diffusion. Estimating the dioxide emission in all three types of energy in Iran's states indicates that the highest rate of CO_2 diffusion belongs to Tehran Province. In contrast the three provinces named Kohgiluyeh & Boyorahmad, North Khorasan and Ilam have the lowest rate of carbon dioxide emission.

Keywords: CO_2 Emission; Energy Consumption; Transportation; Heckman Two-Stage Method.

Jell Classification: Q56, R4, C25, Q4

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An Evaluation of the Proportion of Urban Spaces with Accessibility Standards for the Disabled People and Ranking of Urban Areas (Case Study of Dogonbadan City)

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Abstract

Being able to equally benefit from the advantages and amenities of a civil life in the best way is considered as one of the indispensable rights of all citizens and residents of a city. Physically disabled and handicapped people and veterans are a part of the society whose needs must be satisfied disregarding their physical health conditions; therefore, tailoring various urban environments and utilities to the use of the disabled people is very crucial. In this article, by surveying disabled people and by employing field study and using 6 criteria and 46 sub-criteria, the proportion of different urban environments and utilities in different areas of Dogonbadan town to the needs of the disabled according to the established standards is investigated. Data are analyzed using such statistical methods as TOPSIS algorithm and T-test and employing SPSS software. Results indicate that regarding urban planning and designing standards specific to the disabled, no sufficient and suitable measures are taken in Dogonbadan town and none of the evaluated spaces and uses in this town have a suitable customization for the disabled in between various areas: parks and green spaces, educational spaces, libraries, a sports hall and passages and in between urban areas 4 and 5 are worst. In this regard, every urban area is prioritized for customization in each criterion according to a ranking of urban areas using the criteria under study.

Keywords: Urban Space; the Disabled; Accessibility Criteria; Ranking; Dogonbadan City.

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