In The Name of God

Journal of
Applied researches in Geographical Sciences

(QUARTERLY)

Vol.15, No.36
Spring 2015

This publication, jointly with a letter of understanding between Geographic Society and the Kharazmi University in Iran was published.

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Journal of Applied researches in Geographical Sciences

Published by: kharazmi University of Tehran Publication
Address: P.O.Kod: 15719-14911, 43 Number, Avenue Moffateh, Tehran

The journal is Accredited by the ministries: Ershad, via 124.12227 dated 11/24/2002 Science and technology: Via 89/3/11/89307 dated 2/7/201

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Content….....Page

Survey of role of spatial factors on distribution- dispersion of maximums perceptible water in atmosphere of Iran……..……4
Hossain Asakereh * Mehdi Doustkamian

Assessment of rural satisfaction with local organizations services In ILAM province..…5
Alireza darban astaneh

Drought monitoring in Ardabil province by means of SEPI fuzzy index developed based on the fuzzy logic…….……..6
Behruz Sobhani * Ata gafari Gilandeh * Akbar Goldust

A New Climate vulnerability Index; Sistan and Baluchistan province……7
Zahra Hejazizadeh * Bohloul Alijani * Mohmmad Saligheh * Hasan Danaeefard * Ismael Ahmadi

Performance evaluation of the factors influencing Tourists General Satisfaction in the Border Cities. Baneh Border City……..…….8
Mohammad Najjarzadeh * Ali Akbar Amin Beidokhti * Jamal Morad Nejad

Feasibility of City Development Strategy in Enabling and Regularizing the Informal Settlements in Tabriz metropolis, district 1……..……..9
Jamileh Tavakolinia * Mohammad Shali

Evaluation the efficiency of using Artificial Neural Networks in predicting meteorological droughts in north-west of Iran…….10
Mahroo Dehbozorgi * Arash Malekian * Amir Houshang Ehsani

Spatial dispersion of climatic factors in North and central basin of Iran using statistical models……..…….11
Mohammad Saligheh * Ali Bayat * Hakimeh Behboudi * Akram Zakeri * Fatemeh Jamali

Statistical Analysis of Relationships between Monthly Maximum Temperatures in Iran and Global Mean Land-Ocean Temperature Anomalies……12
Yousef Ghavidel Rahimi * Manouchehr Farajzadeh Asl * Mehdi Alijahan

Effects of Rural Tourism on Rural Developmenti in Hajij Village in Kermanshah……13
Hamid Jalalian * Faryosh Namdari * Asghar Pashazadeh

Spatial Analysis of Kermanshah province Regional Development by using multi-criteria decision-making models……..14
Hossein Nazmfar * Amendh Alibakhsi * Soheyla Bakhtar

Analyzing the effects of Khorramabad - Zal bridge highway construction on rural development Eastern Miankoh villages……..……..15
Hossein Farahani * Mehrshad Toulabi Nejad

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Survey of role of spatial factors on distribution- dispersion of maximums perceptible water in atmosphere of Iran

(Manuscript received: November 18, 2013, in final form: July 25, 2014)

Hossain Asakereh[1]: Assistant Professor of Geography climatology-zanjan university.
Mehdi Doustkamian: PhD student's of climatology of climatology planning zanjan university.

Abstract

All the water vapor of atmosphere is contained in a column of the atmosphere that is capable of precipitation and it is from the ground to the final of water vapor called perceptible water. This element influenced by topography and height. The purpose of this study is survey about impact of local and spatial factors on distribution of perceptible water maximums in Iran. For this reason, pressure data, especially moisture, orbital and meridional components extracted from NCEP/NCAR and analysis. Correlation and regression methods were used in this study. In order to better survey about perceptible water gradient changes and gradient changes of maximum of perceptible water has been calculated. Results showed that among the spatial factors, height has greatest impact on the spatial distribution of the maximum of perceptible water. Unlike many scientists who believe that by increasing the latitude perceptible water reduced, this rule is less In Iran atmosphere. However, most of the gradient changes of perceptible water occurred in some parts of the Zagros highlands, West and South West. The results of cycle analysis showed that the maximums of perceptible water in Iran have short term cycles between 2 to 4 years.

Keywords*:* perceptible water, Specific humidity, gradient changes, regression, harmonic analysis.

[1]. Corresponding author: Email: asakereh1@yahoo.com

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Assessment of rural satisfaction with local organizations services In Ilam province

(Manuscript received: January 29, 2014, in final form: January 1, 2015)

Alireza darban astaneh[1]: Assistant Professor of Geography and Rural Planning, faculty Geography, Tehran University, Tehran, Iran

Abstract

Today in democratic governments, accountability to people and obtain the consent of them from local services is important for people's participation in local governance and consequently it is important to organizational success. In rural areas, wide range of services offered by local public organizations. Rural Satisfaction with the quality of their services is one of the public performance indicators. The purpose of this study is to measure and analyze the rural people satisfaction from services quality of local organizations in Ilam province. Research Statistical Unit, is all villages with over 20 households in Ilam province. Research Statistical population is all members of the village councils and the study was done by counting all. The overall 1130 questionnaires were collected from 398 villages. The data were collected using a closed questionnaire. The model of Service Quality Gaps was used to assessment of villager's satisfaction and One sample Chi-square used to analysis and assess of comments. Also Cluster analysis was used to compare and cluster the villagers' satisfaction and one way ANOVA tests and Duncan's post hoc test was used to compare the satisfaction of villagers in different counties. The results showed that the villagers have little satisfaction in all of the local organizations. Cluster analysis results show that villagers are the most satisfaction from primary education, rural health centers and telephone services. Also ANOVA results show that villagers in Dehloran County are less and Ilam County most satisfied with the public services. Correlation analysis revealed that a positive correlation exists between index of rural enjoyment and the public consensus. Also there is a negative correlation between distance of accessibility index and the public consensus.

Keyword: Satisfaction, local organizations, rural municipality, rural council, Ilam province.

[1] . Corresponding author: Email:astaneali@ut.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Drought monitoring in Ardabil province by means of SEPI fuzzy index developed based on the fuzzy logic

(Manuscript received: April 10, 2013, in final form: July 25, 2014)

Behruz Sobhani[1]:Assistant Professor of Geography climatology interest Mohaggeg Ardabil University**.**
Ata gafari Gilandeh: Assistant Professor of Geography and schematization urban Mohaghgegh Ardabil University.
Akbar Goldust: PhD student's of climatology in environmental planning Mohaggeg Ardabil University**.**

Abstract

Drought defined as a climatic phenomenon with the humidity and rainfall shortage as compared with normal conditions. This phenomenon affects on all of aspects of human activities, severely. while, studies associated with this phenomenon on the basis of appropriate methods are very low. In the present study, effort has been made to analyze the drought state in Ardabil province by means of software system capabilities in MATLAB and SEPI index in two temporal scales of 6 and 12 months. The climatic data of synoptically stations of Ardabil were used, Parsabad and khalkhal countian in Ardabil province. Results of study show that SEPI index reflects the features of two SPI and SEI indices well. And also enters temperature in the studying of drought conditions as one of the effective parameters in changing of drought intensity. Therefore, the investigation into drought with SEPI index is better than SPI index. Studies associated to drought on the basis of SEPI index shows that drought process is increasing in Ardabil province. Temperature also has an increasing flow with higher intensity. Longest temporal continuation of drought in province, has occurred in Parsabad station in temporal scale of 12 months, from June, 1998 to November, 1999 in 18 month period. The greatest percentage of drought occurrence is in Parsabad station and the minimum of that is observed in Khalkhal station.

Keywords: Drought monitoring, SEPI index, Fuzzy logic, Ardabil province.

[1]. Corresponding author: Email: Sobhani@uma.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

A New Climate vulnerability Index; Sistan and Baluchistan province

(Manuscript received: July 31, 2013, in final form: February 8, 2015)

Zahra Hejazizadeh: Professor of Climatology, fauclty of Geography, Kharazmi University, Tehran, Iran.
Bohloul Alijani: Professor of Climatology, fauclty of Geography and Director of Center of Excellence for Spatial Analysis of Environmental Hazards, Department of Geography Sciences, Kharizmi University, Tehran, Iran**.**
Mohmmad Saligheh: Associate Professor of Climatology, fauclty of Geography, Tehran, Iran**.**
Hasan Danaeefard: Associate Professor of Management, Department of Management and Economy, Tarbiat Modares University, Tehran,
Ismael Ahmadi[1]: Ph.D. Student of Climatology fauclty of Geography, Kharazmi University, Tehran, Iran.

Abstract

The more exposure to Climate change / variability, the more vulnerability and a community with low adaptive capacity and high sensitivity is more vulnerable. Vulnerability reduction depends on adaptation policy and strategies. Designing and assessing these strategies require climate vulnerability (CV) measuring. To produce a new CV index, as a main propose of this study, first: The score of exposure factor for two five span years was calculated based on four synoptic stations data (Zabol, Zahedan, Iranshahr and Chabahar). Second: The scores of adaptive capacity and climate sensitivity were determined using all of the country census and yearbook data for 1385 and 1390. Third: Due to the nature and factors of vulnerability, a climate vulnerability index was developed based on the multiplicative-exponential model (CVIMEM). Forth: The index was calculated for the province and sub regions. The result shows, although the Sistan and Baluchistan (SB) adaptation capacity was increased, but because of the increased exposure and sensitivity, this province is 16.3% more vulnerable. Area with very high vulnerability label expanded from 57.5% to 100%, which reflects the spatial expansion of vulnerability over SB. The overall result is that vulnerability reduction needs for accurate and continuous measurement, on the increase adaptation capacity and mitigate climate sensitivity.

Keywords: Climate Vulnerability Index, Adaptive Capacity, Climate Sensitivity, Adaptation Strategy, Sistan and Baluchistan (SB).

[1]. Corresponding author: Email: ahmadi.ism@gmail.com

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Performance evaluation of the factors influencing Tourists General Satisfaction in the Border Cities. Baneh Border City

(Manuscript received: October 25, 2013, in final form: April 23, 2015)

Mohammad Najjarzadeh[1]: Assistant Professor, Faculty of Tourism, Semnan University, Semnan, Iran.

Ali Akbar Amin Beidokhti: Associate Professor, Faculty of Psychology and Liberal Arts, Semnan University, Semnan, Iran.

Jamal Morad Nejad: Master in Tourism Marketing Management, Faculty of Tourism, Semnan University, Semnan, Iran.

Abstract

According to WTTC (World Tourism and Travel Council) forecast tourism contribution of global GDP will be about 6000 billion dollar in 2020 and will create 300 million jobs; Therefore, Tourism could be considered as multidimensional field that response to tourists needs with diversity interests and motivations. Shopping is the most necessity needs and it is the one popular activity for tourists. Border regions facilitate this activity because they have two potentials: appropriate geographical situation and non-favorite economic condition for host community. One of the best and most popular border cities in Iran country is Baneh that placed in the west boundaries between Iran and Iraq country. Region's Economy extremely depends on tourism shopping and majority of the host community directly or indirectly involved in that bussiness. Therefore, we can connect tourist's satisfaction with welfare and/or economical condition improvement. As, if it realize positively, region will develop in close future. This paper aims to evaluate performance of factors influencing tourists overall satisfaction in the Baneh border city due to important of development issue. Here, factors divided into two categories: shopping factors and tourism environmental factors. This research has followed a practical object, a descriptive approach with Field- Survey type in the method. Statistical population included tourists who have traveled to baneh city to purchase mainly. Matching to Morgan's table 400 tourists as statistical sample have selected and the questionnaire give to them randomly. The tools for gathering were based on two method, early data (from the field- survey study) and secondary data (from the library studies). An analysis of the results revealed that, in thematic destinations, in addition to factors related to specific Theme (Subject) that they were more influencing, The tourism environmental factors also can influence on the tourist total satisfaction . In sumery, this research aims to examine amount of satisfaction factors impact on the overall satisfaction. Finally, suggestions for relevant governmental institutes are provided.

Key words: Shopping tourism, Baneh border city, Shopping destination, tourism environment factors, and Overall satisfaction.

[1]. Corresponding author: mnajjarzadeh@profs.semnan.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Feasibility of City Development Strategy in Enabling and Regularizing the Informal Settlements in Tabriz metropolis, district1

(Manuscript received: April 15, 2013, in final form: October 26, 2014)

Jamileh Tavakolinia: Assistant Professor, Human Geography Department, Shahid Beheshti University.
Mohammad Shali[1]: Ph.D. Student in Geography and Urban Planning, Shahid Beheshti University.

Abstract

Nowadays, informal settlements has become a common challenge in many of cities particularly in Metropolises .On one hand, it is a spatial manifestation of social and economical inequalities and injustice at the local, regional and national levels. On the other hand it is the result of urban planning deficiency, absence of citizenship and inattention to social and economical needs of low income groups in urban development plans. In this research, in order to develop main strategies for enabling and regularizing Tabriz informal settlements by zoning the district one's settlements of Tabriz municipality and identifying the low income and vulnerable zones, the social, economical, physical and environmental indicators have been used. Moreover, the data was analyzed by combining GIS and AHP models and three zones were reached. The research shows the socio-economical and environmental separation between vulnerable zones and others. The CDS strategy has been confirmed because of paying attention to participatory and community-based approach for enabling and regularizing informal settlements of Tabriz district one

Key words: City Development Strategy, Informal Settlements, Enabling, Regularizing, Tabriz metropolis.

[1] . Corresponding Author: Email:shali@hotmail.com

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Evaluation the efficiency of using Artificial Neural Networks in predicting meteorological droughts in north-west of Iran

(Manuscript received: December 3, 2012, in final form: June 19, 2015)

Mahroo Dehbozorgi: Graduated Msc student, Natural Resources engineering, coexistence with desert, International Desert Research Center, Tehran University.
Arash Malekian[1]: Assistant Professor in Hydrology and Water resources management, Faculty of Natural Resources, Tehran University.
Amir Houshang Ehsani: Associate Professor in RS & GIS, Faculty of Environment, Tehran University.

Abstract

Drought is one of the most destructive natural disasters in human societies that cause irreparable impacts on agriculture, environment, society and economics. So, awareness of occurrence of droughts can be effective in reducing losses. In this study, in order to modeling and forecasting drought severity in a 37 year time period (1971-2007) in 21 meteorological stations, located in the cold semi-arid region of north-west Iran, artificial neural networks was used. The input data was annual rainfall data and annual drought precipitation index for all stations that 80% of the data (1971-2000) used for training the network and other 20% (2001-2007) used for testing it and in the next step drought severity predicted for the years 2008 to 2012 by the trained algorithm without using actual and existed data in this period. The appropriate structure for the network, based on Multi-Layer Perceptron with three hidden layer, Back Propagation algorithm, sigmoid transfer function and 10 neurons in middle layer. The results show that the artificial neural networks are well able to predict the non-linear relationship between rainfall and drought as it can simulate drought precipitation index values largely consistent with the real values with more than 97% regression and less than 5% error. So, drought can be predicted by this method in future and also it is useful in water resources management, drought management and climate change.

Keywords: Drought, Prediction, Artificial Neural Networks, north-west Iran.

[1]. Corresponding author: Email: malekian@ut.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Spatial dispersion of climatic factors in North and central basin of Iran using statistical models

(Manuscript received: October 25, 2013, in final form: April 23, 2015)

Mohammad Saligheh: Associate Professor of climatology, Kharazmi University, Tehran. Iran.
Ali Bayat: Ph. D student of climatology, Kharazmi University, Tehran. Iran.
Hakimeh Behboudi[1]: Ms of climatology, Kharazmi University, Tehran. Iran.
Akram Zakeri: Ms of climatology, Kharazmi University, Tehran. Iran.
Fatemeh Jamali: Ms of climatology, Kharazmi University, Tehran. Iran.

Abstract

Understanding weather zoning and knowing homogeneous climate regions are essential for land use and regional planning. The aim of this study was to compare three different geographical climate of Iran, the Caspian coastal, mountainous and arid interior of the provinces of Mazandaran, Semnan, Tehran, Qazvin, Qom, and Markazi. In order to do this study, climatic data of 56 synoptic and climatology stations and 19 climatic elements were used by using cluster analysis and factor analysis models. For this purpose, a matrix with dimensions of 56 x 19 and the R configuration and as a database was used for segmentation. By applying factor analysis based on principal components analysis with Varimax orthogonal rotation it was determined that in the climate of these three regions, four factors of humidity, temperature, dust and thunderstorms are affecting more than 85% of the total variance of the climate of this region. The hierarchical cluster analysis method and integration into the matrix of factor scores, four main and several sub-region areas were identified.The main areas are hot, dry desert area, low rainfall mountain slopes, the mountainous and cold and semi-rainy regions and high rainfall and finally the moderate high rainfall. The study of four areas and their local and regional conditions shows that the neighborhood with humidity sources such as the Caspian Sea and rough configurations such Alborz Mountains play a decisive role in the formation of north sub-areas.

Keywords: Zoning, principal component analysis, factor analysis, cluster analysis, climate.

[1]. Corresponding author:Email: hakim.behboudi@yahoo.com

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Statistical Analysis of Relationships between Monthly Maximum Temperatures in Iran and Global Mean Land-Ocean Temperature Anomalies

(Manuscript received: October 4, 2014, in final form: February 1, 2015)

Yousef Ghavidel Rahimi[1]: Department of Physical Geography, Tarbiat Modares University, Tehran, Iran.
Manouchehr Farajzadeh Asl: Department of Physical Geography, Tarbiat Modares University, Tehran, Iran
Mehdi Alijahan: Department of Physical Geography, Tarbiat Modares University, Tehran Iran

Abstract

Global warming and the meaningful relationship between temperature and precipitation changes over different areas of the earth with temperature increment of the earth, are considered as the most important patterns of this century's climate changes .Today, there is debate over climate change and global temperatures increasing. Damaging effects of this phenomenon on the planet is one of the most challenging issues in global scale. Because of this, the research ahead is done for the detection of global warming on maximum temperatures, monthly and periodic (hot and cold) as well. For this study, two groups of data, temperature data of 17 synoptic stations and corresponding amounts of data in global temperature anomalies were figured out over 60 years period of time (1951 to 2010). Goals, the Pearson correlation method for detecting relationships between data's, linear and polynomial regression for trend analysis time series data , To illustrate the correlation between the spatial distribution of temperature data with global warming stations nationwide Geostatistical model Finally, non-parametric test for detecting significant temperature change Man - Kendall were used. According to the results impact of global warming on the maximum temperature in the cold months like January, December and November should be much lower, and the highest in spring and summer season in the southern stations such as Abadan, Ahwaz and Shiraz seen. The above process is also evident in periods of hot and cold temperatures and the influence of the stations temperature of the warm period of global warming were higher than cold period and represent an increase in the temperature of the warm period of years. In between, the number of stations as well as Anzali, Urmia and Khorramabad stations in some months had the opposite influence of global warming and seen drop in the maximum temperatures of them. It is also observed in the results obtained from the analysis period. Station's maximum temperature trend change is represents significant in the summer month. Changes trend in the months of July, August and September, is significant that the process is more pronounced in the southern stations. Significant analysis trend changes have been taken in periods (cold and hot) in studied stations indicative of its significance in warm period.

Key words: Maximum temperature, Global warming, Global Mean Land-Ocean Temperature Anomalies, Climate Change, Iran **.**

[1]. Corresponding author:Email: ghavidel@modares.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Effects of Rural Tourism on Rural Development: Hajij Village in Kermanshah

(Manuscript received: August 16, 2014, in final form: November 30, 2014)

Hamid Jalalian[1]: Associate Prof. Faculty of Geographic Scienses, Kharazmi University, Tehran, Iran.
Faryosh Namdari : M. A. of Geography and Rural Planning, Kharazmi University Tehran, Iran.
A. Pashazadeh: PhD. Student of Geography and Urban Planning, University of Mohaghegh Ardabili.

Abstract

Nowadays most of the countries have chosen the tourism as a development strategy for the rural areas. The Hajij village with worthy natural, cultural and anthropological heritage has known as a tourism destination in Kermanshah province and west of Iran. In this research, the effects of tourism are studied in this village. The methodology is descriptive-analytic method. The necessary data were collected through both library and field methods. The population of this study equals to 180 persons- based on Cochran Table- including the 130 residents, 15 local governors and 35 visitors were selected by simple random method. Research tools include a researcher made questionnaire which its validity was confirmed based on the collective opinion of the universities professor's and experts of executive organizations. The reliability of the questionnaire was calculated at 0.867 using Cranach's alpha test based on 20 pretesting. Data analysis was held by factor analysis in SPSS 21 software. The research findings showed that there are six main factors among 30 variables which interpret 70 percent of the variance of the tourism effects; the most important is physical- facilitator effects. Moreover, the positive effects were %65.8 and the negative ones were %34.2 based on factor analysis.

Keywords: Rural Economy, Rural Tourism, Tourism Development Effects, Factor Analysis, Hajij

[1]. Corresponding author: Email: hamidjalalian@khu.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Spatial Analysis of Kermanshah province Regional Development by using multi-criteria decision-making models

(Manuscript received: April 7, 2014, in final form: March 22, 2015)

Hossein Nazmfar[1]: Associate professor of urban planning, university of Mohaghegh Ardabili, Ardabil. Iran.
Amendh Alibakhsi: Msc.student of urban planning, university of Mohaghegh Ardabili, Ardabil. Iran.
Soheyla Bakhtar: Msc.student of rural planning, university of Mohaghegh Ardabili, Ardabil. Iran.

Abstract

With the aim of development and reducing regional inequalities, regional planning is one of the most important subiects in developing countries. Regional planning requires the identification of the position of areas relative to each other in terms of their development. The aim of this study is to investigate and assess the level of Kermanshah province in terms of development indicators in order to find out the level of regional inequalities. The population of Kermanshah province is considered as statistical population. According to the investigated parameters of the research approach, it is "Descriptive - quantitative and analytical". This research is trying to use the 61 indicators based on 1390 almanac statistics and utilizes three statistical techniques of Vikor, Electre, SAW and integration of results with Copeland technique, classify existing inequalities in Kermanshah province. The results show that the Levels of development have been unbalanced and there is large gap and inequality among different cities of province in terms of development. The difference and inequality exist in various sectors of infrastructure such as economic, health, education, culture, social welfare and social. Only one city Gilangharb is developed and the rest of cities are semi- developed and deprived. To reduce inequalities in development in the province it is suggested that distribution of health, education and infrastructure indicators should be directed towards balanced growth and the index of infrastructure be emphasized more than the other indicators.

Keywords: Development, Electra, Vikor, Copeland, Kermanshah Province

[1]. Corresponding author: Email:nazmfar@uma.ac.ir

[DOR: 20.1001.1.22287736.1394.15.36.14.0]

Analyzing the effects of Khorramabad - Zal bridge highway construction on rural development Eastern Miankoh villages

(Manuscript received: January 13, 2014, in final form: May 16, 2015)

Hossein Farahani: Assistant Professor, Department of Geography and Planning, University of Zanjan
Mehrshad Toulabi Nejad[1]: MA Geography and Rural Planning, University of Zanjan

Abstract

Transportation networks, particularly roads as a linking elements between settlements has a significant role in the exchange of flows between urban and rural areas and also rural development .The aim of this paper is to study the effect of highways construction and expanding transportation on rural stable development in the rural district of eastern Miankouh which by using survey method (questionnaire) have been turned to the studying of highways construction on development quality of adjacent villages in this rural district. In this study ,mean time of defining the population community (514 family), the 103 family was selected as a sample with Cochran formula (12 villages).The result of achieved data analysis, on the basis of, fitting regression test, linear regression and path analysis showed that the most general effect of highway construction is relevant to the environmental dimension with amount of (0/591) so that the contamination of soil and water resources have been increased in rural areas. Also using of fertilizers and pesticides is been prevalent. The amount of demolition of water resources such as springs and water channeling have been increased in the rural boundary. and also pastures, forests and fertile lands have been allocated to the building constructions and forming dimension with amount of (0/058) has the least overall effect on the rural stable development in the boundary of studying area.

Keywords: Highway, rural development, social and economical effects, rural, east Miankouh.

[1]. Corresponding author: Email: Mehrshad_t65@yahoo.com

[DOR: 20.1001.1.22287736.1394.15.36.14.0]