Research Paper

Spatial Analysis of Differences between Urban and Rural Areas about Resilience to Natural Hazards (Case Study: Poldokhtar Township)

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ABSTRACT

Governments are pursuing a variety of strategies to reduce the impact of hazards. The most important of these solutions, which have so far been neglected, is identifying the different communities from the standpoint of resilience to risk, and adopting an appropriate strategy for each of them. Therefore, the aim of this study was to investigate the difference between urban and rural communities in terms of accelerating the naturalization. The present research is a combination (qualitative and quantitative) of purpose, applied and method of doing it. The data-gathering tool was a questionnaire, interview, and yearly journal of Lorestan province. The statistical population is urban and rural villages of Poldokhtar township (N= 30012). Using Cochran formula, 379 households (244 households and 135 rural households) were selected. Data analysis was performed using variance analysis, logistic regression model and geographic information system (GIS) for spatial analysis of indices. The results showed that there is a significant difference between functional factors in urban and rural areas. Resilience in urban areas is primarily affected by economic capital. While social capital is the most important factor in resilience in rural areas. There are also significant spatial changes in resilient indices in rural areas. Therefore, in order to increase the resilience of societies against risks, for each of them, an appropriate strategy should be taken into account with regard to local capacities.

Extended Abstract

1. Introduction

Deal with natural hazards, one of the main challenges for developing countries is not only caused death and emotional pain and suffering of the people, but also to local and regional economies are also faced with disaster damage and are thus canceling out the gains of development. In accordance with an internationalization strategy United Nations for disaster reduction in recent years, Losses of about 600 billion dollars in different countries compiled by more than three billion people affected and of these, more than 750 thousand people have lost their lives. Increase in the costs of natural disasters, with the threat of climate change combined with modern societies, attention most countries, for own again solutions for prevention, recovery and disaster preparedness is fast. Today, governments have various

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strategies to mitigate risks in the fall. The most important of these strategies, and identify threats and vulnerabilities and measure people by their resilience against disasters and accidents. Now resiliency in the face of natural disasters and international politics as one of the tools is to reduce accidents.

2. Methods

The aim of the present study, functional and combination method (qualitative and quantitative) is. For the collection data and information from both documentary and field was used. Studies have a theory of documentary method, Some data (such as demographics, retirement age, employment rate, etc.) through the Center for Statistics 2011 Statistical Yearbook of Lorestan Province (2014) and data Resiliency through two types of questionnaires (structured and unstructured), interviews with urban and rural households were collected. The population, including rural and urban households, is Poldokhtar Township. To determine the volume of the sample using Cochran formula and simple random sampling of 379 households were selected. To answer the research questions and talk about the differences between rural and urban areas in terms of resiliency in the Poldokhtar Township according to the research variables, Statistical analysis methods and Maps are used. The level and scale of ordinal and interval data and the majority of the variables are not normally distributed. For the inferential analysis, the analysis of variance, binary logistic regression model and for the spatial analysis, geographic information systems were used.

3. Results

To examine the differences in urban and rural areas in terms of resilience against disasters, among these factors in urban and rural communities and Resiliency each of them based on measurement of these indicators linear tests, such as analysis of variance, were used. The findings show that scores on resilience in rural settlements ($F= 12.423$ and $p<0.001$) lower than urban areas settlements ($F= 69.561$ and $p<0.001$) is. Comparative study shows that in terms of resilience in urban and rural settlements there is a significant difference. Likewise, results of the logistic model illustrate that for most measures the amount is significantly less than 0.01. BETA values also show that a single change in the standard deviation of the underlying index, institutional, social capital, economic, social and environmental, respectively, 0.283, 0.473, -0.827, 0.884, 0.255 and -0.134 units, with resilience against natural hazards in urban and rural community's linear relationship. Using as our guide for BETA index shows that the index in question, the two indicators (capital, social and environmental) more relevant to rural communities and other four indicators are more relevant to urban communities. However, the biggest difference between urban and rural areas is related to the social capital index of economic indicators, the variables of the two indices, or rural communities or urban areas more relevant.

4. Discussion

The results indicate that there is a greatest difference between urban and rural areas relating to the individual indicators of resilience. For rural areas attachment to place, social capital and resilience greatest impact on the overall stability of the population in rural settlements apply. Employment rate, being dependent on the primary sector, greater ownership of assets, higher per capita education, industrialization and greater access to information through the Internet with Srtbala and access to sanitary facilities, etc., as well as the distinctive features of resilience in urban communities is. Therefore, we can say that significant differences between factors and resiliency features in both rural and urban areas there. Resilience in urban areas is primarily influenced by economic capital, social capital as the most important factor of resilience in rural areas. Also in rural areas where significant changes in the factors and indicators of resilience in the face of events there. Therefore, in order to increase the resilience of societies to the risks, each one of them needs to adopt an appropriate strategy for the local capacities.