# Urban Physical Development of Urmia City by Quantitative Models

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## **Extended** abstract

### Introduction

One of the most important and dominant issues discussed on the international environmental problems is the concept of "sustainable development" and the relationship between urban form and sustainability. This has posed more discussions like the way in which the cities should be developed in the future and the effects their form can have on resource depletion and rational use of environmental resources. In order to achieve the sustainable urban form, different models and approaches, mostly two opposite approaches were introduced: "Compact city" and "Urban Sprawl".

Urban sprawl was a reaction to industrial city which is normally conceived as a combination of low- density, scattered and strip development patterns. Researchers have summarized the various definitions of urban sprawl in the planning literature to create a working definition of the concept as: '...unplanned, uncontrolled and uncoordinated single use development that does not provide a functional mix of uses and/or is not functionally related to surrounding land uses. This is variously appeared as low-density, ribbon or strip, scattered, leapfrog, or isolated development.

Different impacts of urban sprawl, mostly negative ones have come under increased criticisms in the recent years. This change has occurred in conjunction with an increasing awareness of human impact on the environment and the emergence of 'sustainability' as a concept of international significance. The 'Sustainable development' has become most popularly understood from its definition in the report by the Brundtland Commission as 'development which meets the needs of the present without compromising the ability of the future generations to meet their own needs and aspirations'. Urban sustainability and sustainable urban form was introduced mostly through 'compact city' theory. But at the end and according to different academic conflictions, different considerations of compact city should be adapted to local and environmental conditions of different regions and countries.

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In our recent conditions in Iran, we should respect to our resources and try to use them in the most logic way. Unsuitable growth, horizontal development, and urban sprawl have occurred even in the places the land is a critical issue which causes destruction and loss of farmlands around the cities and other disadvantages. These issues emphasize on the importance of logical and conscious development of the cities.

The main purpose of this research is to examine the physical development in city of Urmia in the recent three decades. It tries to reach this point of view whether if the existing development process leads to sustainability or it moves towards unsustainability. The importance of this issue is because of the existence of the valuable farmlands around the city of Urmia and agricultural role of the city in the different plans.

#### Methodology

Historical, explanation- analysis method, experimental and case study are the approaches used in this research. Necessary data like population, city area, density, urban land use and etc. from different sources have been gathered and studied by different methods and quantitative models of urban physical development. Holdern and Shanon Antropy models are used to analyze the results, in the next stage.

#### **Results and Discussion**

Holdern, Shanon Antropy and many other quantitative models are used to examine the process of physical development of urban areas. These models can estimate the amount of urban development according to population needs and the amount of urban sprawl.

According to different analyses, the total urban area of 1400 hectares of Urmia City in the 1976 has exceeded to more than 8578 hectares in 2006. This is because of the urban growth especially in the suburbs. This amount of growth does not fit the population growth in the same time. In the last three decades urban population growth was nearly 3.5% while growth urban area was nearly 6%. The results show that the growth process in city of Urmia in the recent 3 decades has moved toward the unsustainability and is greater than population needs. According to Holdern Model analysis, it is estimated that 69.9% of urban growth is because of population growth and 30.1% related to sprawl development of the city which causes destruction of rich farmlands. Therefore, appropriate decisions must be made in order to cease this process and move toward urban integration and compactness.

#### Conclusion

The results of this research indicate that the use of compact city form instead of sprawl spread can increase its sustainability. Land use Analysis of the Urmia City shows that 2251.8 hectare or 26.2% of whole city is barren. By this potential, urban management can guide the physical growth of the city and prevent its horizontal growth. Shanon Antropy coefficient analysis on city of Urmia at this regard approves the sprawl growth form. Therefore, with emphasis on this technique for verification of the sprawl growth, mono or multi forms of the city can increase error coefficient; for computing exact results on spatial structure form of the city needs other coefficients like Moran and Geary.

The results of the research indicates that if the current process of urban growth continues in Urmia in the future, the most valuable farmlands will be destroyed and the attraction of suburbs will result in the ruin of city centers. Thus, different decisions should be made to reduce unsustainability process.

Keywords: farmlands, quantitative models, urban form, urban sprawl, Urmia.

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# Ranking Rural Habitats Based on Degree of Satisfaction with Quality of Life Using a Decision Model (KOPRS), Case Study: Delfan Villages, Loorestan Province

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# **Extended Abstract**

## Introduction

Today, the quality of life is one of the most important aspects of spatial planning in different countries. This is due to the increasing importance of the quality of life studies in public policy and its role as an efficient tool for monitoring and management of spatial planning. However, the scale of social and individual life quality in rural settlements has long been of interest to planners. But in recent decades by the priority of social goals, this concept has gradually found its way in human attitudes and sociological literature by developing and compiling it into development programs in major developed countries.

## Methodology

The purpose of this study is to assess and prioritize the quality of life situation within the villages Noorabad Dehestan in central part of Delfan. This research has used a descriptiveanalytic method. Therefore, a multi-criteria decision analysis model (KOPRAS) and corresponding analysis methods were used to rank the 16 villages of the area. This value is determined as the zero and one, whatever the value is closer to one, it indicates a high quality of life in villages of the sample, and whatever it is closer to zero, it indicates poor quality of life in the villages. Hence, a volume sample of 240 households was determined in the sample society by Cochran. To assess quality of life in rural area of Noorabad were used in response to intuitive and logical, descriptive statistics. To identify satisfaction of the eight quality of life, we used six Likert scale. This is ranged from complete dissatisfaction to complete satisfaction. The average scores obtained for each village matrix shows our situation.

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#### **Results and Discussion**

One way to measure quality of life in terms of response is intuitive and logical conditions. In a contextual way, people are questioned about their life as a whole, but in a reasonable way, they are questioned about their perception of various areas of life such as housing, the environment, security, jobs, income, and etc. When people responded to the questions, their feelings about life as a whole is questioned. As a result, they can offer a logical response by different aspects of life. Based on the existing research literature in assessment and prioritization of the quality of life with special emphasis on rural areas, 34 items in 8 domains of housing, physical environment, access to services, security, health, employment, leisure and panic disorder, social design and decision-making model was studied by Kopras. In all aspects, we found the villages of KhalifaAbad, AkbarAbadi and Zafarabad in the better quality of life situation. Based on the investigation and observation of the situation, the villages with more population have better access to services and better position to the city center. Thus, with the favorable conditions of the inhabitants of these villages, they have also greater satisfaction.

#### Conclusion

From the results of this research, it can be inferred that Noorabad has different situation in terms of quality of life. The results of the research based on kopras model show that the villages of Khalefeabad, Akbar abad and Zafar abad have the highest level of quality of life and the villages of Hashem abad, Sabzehkhani and Mohammad Rezaabad lowest level quality of life. Finally, a clear conclusion from the research process can be mentioned that the process of sustainable development goals to improve the quality of life is very high.

Inhabitants of the villages have more satisfaction due to access to better services and better location to the city center. Mentioned villages have better conditions in terms of housing, physical environment, education, health services, communication services, transport services, financial services and credit banks, a variety of infrastructure such as electricity and drinking water, and cultural services. As a result, sense of place and hope for the future and optimism for the provision of a good life in the future as well as the progress and happiness of people living in the rural areas are higher compared to other villages. But in the front Table 11 shows the village of Hashem Abad, SabzehKhani and Mohammad. The satisfaction level of employment and income in rural areas is low and the hope for the future to provide a good life is very rare. Thus, many young people want to emigrate and to leave their villages and this leads to imbalance of population in the rural areas.

**Keywords**: KOPRAS model, multiple criteria model, Noorabad Dehestan, quality of life, subjective and objective dimensions.

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# Application of Strategic Choice Approach to Habitants Behavioral Patterns (Case Study: Sepah Street in Qazvin)

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## **Extended Abstract**

### Introduction

These days, designing for improvement in people behavioral patterns is an essential principle. While designing and planning activity and behavior has effective role in quality of urban space. The problem is that unilateral attention to physical properties of street is not enough to have revitalization plan. Integration of physical and unphysical properties of streets and avoiding merely quantitative view should be adopted as a suitable mechanism to revive behavioral characteristics of urban cores.

In this section, some of the definitions and concepts that have been used in this paper are presented and then the method that applied in this research is introduced. Behavior is the manner of carrying out an activity. Human behavior is a resultant of one's intentions and needs, time and place, imagination of outside world, culture and social values (Lang, 1987). Urban regeneration approach is economical development and competition expansion, improvement in the stability of built environment, increase in cultural identity and citizens' life quality and promotion of urban management in derelict, disordered and obsolete urban areas. Urban regeneration is a comprehensive and integrated vision and action which leads to the resolution of urban problems which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change (Roberts & Sykes, 2000: 17).

Participation, strategy and stability are considered as three main bases in this plan. They provide a basis for a comprehensive complex measure and each play an especial role in urban regeneration approach (UNEP, 2004). Strategic choice approach deals with regulation and direction of a set of operations, policies and depletion of preparations aiming at achieving and, if it's not possible, providing the steps of tolerating least defeat. In order to encounter the problems caused by uncertainty and deficient of knowledge, this process insists in short term action and lack of concentration. Basic principles of this process can be described as; decision-making problems related to each other in this process. A hierarchy of policies and choices related to each policy area can be determined and then an approach is selected that realizes uncertain identity. It identifies and pursues suitable policy choices in order to encounter complicated decision-making problems (Daneshpoor, 2001: 18).

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Expansion of cities usually increases demands for commuting to the city and intra-city trips, in addition to the issue of duration of trip. This has made city streets as an integral part of city daily life. Function of streets throughout the city can be evaluated from two aspects: one is functional which includes the most strategic role routes play which is movement of goods and people; the second aspect, which is as important as the first one and in many places being neglected by city managers and planner, is social-behavioral aspect of streets. This aspect can enhances the quality of space to the level of urban places, the place of liveliness, social interaction places and a place of common memory.

#### Methodology

The main purpose of this study is to suggest a planning strategy for urban regeneration of an urban space through strategic choice approach method. The case study of this research was Sepah Street in city of Qazvin. To achieve this goal at the beginning the theoretical principles and definitions related to the subject has been reviewed, and then the existing situation of the case study area had been examined using field observations and Examination of written documents. After this stage, strategic choice process approach helped the research to define proper regeneration strategies.

#### **Results and Discussion**

This paper is conducted by the authors to formulate the regeneration of an urban space that the case study is Sepah Street in Qazvin City.

The results of urban regeneration principles in the form of strategic choice approach in this article show that after policy domain are determined, land use planning system considering behavioral characteristics of the street is approved to protect cultural identity and spatial situation of its past. In other words, this paper is trying to regenerate social entity of an old and historic street by this method and give it the required efficiency to meet nowadays expectations. The goal of experiment of the analysis method on Sepah Street of Qazvin (the first designed and direct street of Iran) is to achieve regeneration of this street. Sepah Street as a northern-southern one is located in Qazvin city. It has had some important elements and landmarks like Alighapoo edifice, Bazar, Atiq chief mosque.

### Conclusion

As a process to settle problems by decision making groups, strategic choice approach has a vital role. This approach focuses on the following issues.

- 1. Focuses on decisions to be made in a particular planning situation, whatever their timescale and whatever their substance.
- 2. Highlights the subtle judgments involved in agreement with how to handle the uncertainties which surround the decision to be addressed- whether these be technical, political or procedural.
- Keywords: behavior pattern, scenario, Sepah Street of Ghazvin, strategic choice approach, urban regeneration.

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# Analysis of Sustainability Level in Neighborhoods of Meybod Historical Garden City

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## **Extended Abstract**

### Introduction

The economical- social and bio- textual system changes in favor of cities has transformed urban sustainable development into an efficient and important paradigm in urban management affairs. It is necessary to draw cities future plan. Hence, inequalities between regions and neighborhoods are of special importance. Meanwhile, inter- regional and local inequities have particular importance. Meybod is remained everlasting on the basis of its valuable past. The existence of several subterranean canals had been effective in spatial order of this city and affected its path on the urban network. Old cores of city had been affected by the agent of water and subterranean canals. Meybod City from the viewpoint of community structure and unhealthy competitions for the acquisition of facilities and urban substructures has challenged the spatial organization of communities. Consequently, the irregular use of the land around the city caused imbalanced growth and confronted the life with problems and difficulties for future generations. In this article, we try to emphasize the neighborhood inequalities in Meybod city.

## Methodology

This is an application- development research with descriptive– analytic examination method. The geographical range of research is Meybod city, with 18 separate urban sections. The data required for this study is obtained from literary sources, results of population and housing census data of 2006. By SPSS software, 49 indicators were extracted and sign test (wilcoxon) has identified the place of Meybod city among the urban areas of the country. Up to 33 indicators are identified and ranked for factor analysis standard test and composite index of human development of stable level of regions. Then, the dispersion coefficient model has been applied to examine rates of inequities among locations to provide a strategy. Indicators statistics as sustainable development indices are selected and divided into stable and unstable indicators according to the positive and negative nature of some indicators.

#### **Results and Discussion**

The first step in evaluation development of Meybod city is comparison with national indicators. In this research using indicators, in a variety of social, economic, biological and physical aspects and with 95 percent confidence interval, it can be said that situation of the selected indicators of the city were better than the national indicators. In inner - city, one of the appropriate criteria for identifying facilities and lack of locations of a city is classification of them according to various economic, social, physical, environmental and other indicators. Therefore, in this research we divide the Meybod urban locations into five groups: stable (ideal stable development), strong stable development (positive), semi-permanent, weak stable, and unstable development. The importance of this classification is that knowing the stability of the location can show the level of living the population of a region and also present the plans and programs for decrease in the shortage and deprivations. However, since it is possible some locations, from the viewpoint of health, house and factors of culture have good condition and they may yet be unstable in the viewpoint of economic, physical and environment status or vice versa. Hence, it seems necessary to distinguish stability of different locations using the combination indicators that enable the level of living and material and cultural comfort of people in each region. We try to address the stability of Meybod city according to the 33 stability indicators by factor analysis in 6 factors covering 75 percent of variance. Then, we calculated the dispersion coefficient for each of the factors and analyzed rate of stable and unstable. Finally, ranking of locations in compilation of index can be used of the standard scores and indicators of Morris. Human development indicators (HDI) are also used to determine the rate of stability and instability of interest locations.

#### Conclusion

According to the results of this research, the small town called Imam Jaafarsadegh and the old districts of Firuz Abad have been identified as the most stable and instable regions in Meybod city, respectively. The district (11.1) as the sole stable area in this city has been constructed totally compatible with the principles of sustainable urban development. Districts (7.1, 13, and 14) on the other hand have been recognized as instable districts in the city. Among the striking ecological and pathological features of the instable districts of Meybod city, we can see lack of social integrity, destruction of gardens and highly productive agricultural lands, the drastic shortage of services, installation, equipment and facilities in the town and etc. The semi-stable districts are located in such a way as to develop the primary cores of the districts in the city. These districts were founded as a result of the physical development of the city in the past years. The most striking characteristics of this part of districts are high housing per capita, strong and standard houses, much open space establishment of educational, sports, commercial and trade services. The figures indicate that stable development in the fields of social and spatial equality of inter-generational and even inter-generational justice has failed to materialize the Meybod city.

Keywords: Meybod City, neighborhoods, urban sustainable development.

# Influence of Physical Structures of Urban Spaces on Environmental Security (Case Study: Samen Region, Mashhad City)

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## **Extended Abstract**

## Introduction

Nowadays, with the increasing trend of urban growth and social insecurity in the cities, study about the factors of security and physical, cultural and functional perspectives of urban security threat affecting citizens and municipal experts. Scientific analysis and decision-making principles and urban design basics and the strategies for strengthening urban security are essential to such investigations. Urban space as a subset of the physical security is not an exception. This means the physical and social dimensions of a dynamic relationship with each other. Thus, the problems of public spaces in urban security are the subject of many challenges. In this way, we can feature the factors in the genesis of criminal behavior in two parts of the city or other physical characteristics or features. This is one of the most essential factors in the optimal performance of publicly vision of the people (citizens– consumers), the views of users about security in public spaces. Therefore, the metropolitan city of Mashhad, Samen, as the religious center of Iran requires to be assessed in qualitative and quantitative development of regional security in urban areas. Accordingly, the model of network analysis process (ANP) to analyze and select the physical structure of the security strategy.

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#### Methodology

The research methodology is chosen based on objectives, research type and characteristic of the subject. The present study involves collection and analysis of causal relationships among objective and subjective factors. This paper describes a method to assess the current status of the case and emphasized on its practical use. In this descriptive study, based on research studies, a library of documents and field studies go directly to the respective questionnaires at two levels. The first is survey methods in the social dimension of the space research. To gather the information needed with regard to the overall purpose of the research and study of urban space (parks, streets and markets), a total of 200 questionnaires (sample size) were distributed using situational sampling method (a sample point) and random sample (probability) in urban and residential, and commercial areas. The analysis performed in this study was carried out by software SPSS, ARCGIS10, Excel and method of multi-criteria decision analysis to assess data and information collected by questionnaires. The matrix-based approach of analytic network process (ANP) used in the model.

#### **Results and Discussion**

Rate is a measure of the weight of the model based on the output data and those obtained from the survey conducted in Mashhad ANP model. It is based on weight range. In order to determine the weights of index (components and sub-components,) and determine the type and severity of the impact on the physical structure of urban security, we calculated the relationship between weighting matrix. The main challenges in this area can lead to neglection of urban spaces. Thus, in addition to the crime, socio-economic and cultural sufficient physical and environmental conditions are the main causes for insecurity in the region.

### Conclusion

Output and model results show the higher priority given to security issues in urban spaces of Mashhad. The results of the model show functionality and performance of the ANP model selection strategy for the security of the physical structure of urban spaces in Samen, Mashhad. The results also show that cluster performance indicators / functions affecting safety in urban areas. Based on the results of the cluster nodes in Mashhad priority areas, environmental security should be classified. According to cluster analysis criteria and the results obtained from the model virtual network, the current security distribution is (model results) matched with Mashhad area.

Keywords: Mashhad, physical structures, Samen city, security, urban security.

# Measuring Urban Ecological Segregation by One Group Measures, Case Study: Takab City

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## **Extended Abstract**

## Introduction

Measures of segregation help us examine many urban issues. By studying the measure of segregation, we can identify the segregation patterns. The results will be useful to provide a framework for analyzing the outcomes in decisions making process and policy effectiveness.

The focus in this work is on the race. This study will use the most widely used and popular one group measures of residential segregation over the past decades for measuring ecological segregation in Takab city. The selected city in this research consists of two main groups, namely Turk and Kurd, as a suitable case study for research purposes.

## Methodology

This study included several most commonly used segregation measures and spatial segregation measures for one group. These measures also consist of four dimensions proposed by Massey and Denton (1988). All of the structural measures can be processed by using an application called Segregation Analyzer created by Apparicio (2008). The calculation contains three steps:

- 1. Creation of a data table, which contains population of each group in urban area.
- 2. Application of the formula of indices.
- 3. Export the results to output files (e.g., text file)

## **Results and Discussion**

The one group measures are the measurements that only capture the indices for one racial group only over the total population in the study area. This research uses indices including the four dimensions of measures mentioned by Massey and Denton (1988).

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**Dimension of Evenness:** Evenness refers to the distribution of one or more population groups across the spatial units of the metropolitan area (e.g., census tracts). Segregation Index IS: The famous and commonly used is the Index of Dissimilarity proposed by Duncan (1955). Segregation Index with Boundary access IS (adj): Morill in 1991 introduced IS (adj) to capture potential interaction between different groups across areal unit boundaries. Segregation Index with Boundary Length IS (w): Wong modified slightly the IS (adj) to incorporate a boundary length component. Then the index IS (w) was introduced where the shared boundary between areal units divided by the total length of the boundary for areal unit. Segregation Index with Perimeter Ratio IS (s): Wong further modified IS to capture the perimeter-area ratio divided by the maximum perimeter-area ratio among all of the area units in the study region. Therefore, Wong introduced IS (s) to incorporate the geometric characteristics of areal units into the segregation index. Gini Index G: The Gini Index is located in the area between the segregation curve and the diagonal. The Gini coefficient is for measuring segregation, proposed by Duncan (1955). Entropy Index H: This is also called the information index, originally proposed by Theil (1972) and Theil and Finezza (1971) as a measure for school segregation. It was later extended to racial evenness segregation measure for the city. Atkinson Index ATK: This was proposed by Atkinson (1970) which resembles the Gini coefficient. Unlike the Gini, this measure allows researchers decide how heavily to weight areal units at different points over the city wide minority proportion. The values of all above indexes are between 0 - 1 where 0 is evenly distributed and 1 means totally separated. The calculated values for the indexes in Takab city are shown in Table 1.

Table	1.
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Tuble II							
Ethnic group	IS segregation	IS(adj) evenness	IS(w) evenness	IS(s) evenness	H entropy	G Gini	A(0.1) Atkinson
Turk	0.8593	0.6656	0.8237	0.8162	0.7704	0.9647	0.7087
Kurd	0.8593	0.6656	0.8237	0.8162	0.7505	0.9647	0.7824

**Dimension of Exposition:** Exposure is the degree of potential contact between members of the same group (Massey and Denton, 1989). **Isolation Index xPx:** It measures the extent to which minority members are exposed to only their own group. **Correlation Ratio Eta2:** This measure is the interaction index with the asymmetric relation removed. It represents an independent dimension of segregation.

The values of both above indexes are between 0 - 1 where 0 is no exposure at all and 1 means highly exposed. The less the value, the more segregated the racial group. The calculated values for the indexes in Takab city are shown in Table 2.

Table 2.				
Ethnic group	xPx exposure	Eta2 exposure		
Turk	0.9126	0.7909		
Kurd	0.8783	0.7909		

**Dimension of concentration:** Concentration refers to the physical space occupied by a group. **Delta Index DEL:** It computes the proportion of X members residing in areal units with above average density of X members. **Absolute Concentration Index ACO:** It is by computing the total area inhabited by a group, and compared to the minimum and maximum possible areas that could be inhabited by that group in a given city. The values of both the indexes vary

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between 0 to 1, where 0 means minimum concentration and 1 means maximum concentration. The calculated values for the indexes in Takab city are shown in Table 3.

Table 3.					
Ethnic group	<b>DEL</b> concentration	ACO Absolute concentration			
Turk	0.5611	0.7586			
Kurd	0.5382	0.1516			

**Dimension of clustering:** The more contiguous spatial units a group occupies—thereby forming an enclave within the city—the more clustered and therefore segregated it is, according to this dimension. Absolute Clustering Index ACL: This measure calculates the absolute clustering in urban space. Mean Proximity between Members of Group X (Pxx): It calculates by estimating the average proximity between members of the same group, and between members of different groups. Distance decay Isolation Index DPxx: This was proposed by Morgan (1983) and categorized as the clustering dimension index by Massey and Denton (1988). The values of above indexes vary between 0 to 1, where 0 means no isolation and 1 means maximum isolation. The calculated values for the indexes in Takab city are shown in Table 4.

### Table 4.

Ethnic group	ACL clustering	Pxx clustering	DPxx isolation
Turk	0.7195	0.8902	0.7174
Kurd	0.5879	1.1232	0.4789

### Conclusion

Tekab city with its ethnic demographics has provided an appropriate field for ecological segregation phenomenon. Thus, immigration and move of Kurd race from rural areas to the city during the past decades and its entrance mainly from the western side of the city, has caused a tissue with quite residential segregation in this city. The results show four stages of ecological invasion and succession taken place entirely in Tekab. The application of any of the mentioned indexes with their specific formula and calculations approved that ecological segregation occurs in highly in Tekab. This problem can be considered in urban planning.

**Keywords:** one group measures, segregation analyzer, Takab City, urban ecological segregation.

# Assessment of Housing Sector Development at the Regional Level Using Factor Analysis (Case Study: Middle Region of Hamadan Province)

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## **Extended Abstract**

## Introduction

Inappropriate planning and lack of financial and human resources and equitable distribution of them caused major issues in development of small towns and cities. Housing sector as multidimensional issue has a great impact on urban development. For assessment and evaluation of the development of cities, first there must be comprehensive survey of housing sector situation in cities. This provides the context for strategic planning and implementation plans suitable for housing development. This also provides an analysis of the dependence of human settlement in the region and then, an integrated regional development for the region... .

## Methodology

This research has a descriptive analytical method, to examine central region of Hamedan province in terms of development in the housing sector. In this research, 21 indicators related to housing including qualitative, economic, demographic, and physical indices have been examined based on the information of 9 cities of middle Hamedan Province. SPSS statistical technique and model of Factor analysis have been used in this research. A combination of descriptive and analytical methods in has been used by statistical techniques including factor analysis model in SPSS software

## **Results and Discussion**

Based on research findings, the province have developed and undeveloped and less developed cities. The use of new information and management systems such as GIS can be suggested for more desirable urban management and awareness of deficiencies and needs, particularly in the housing sector in all cities of the province. Necessity for government intervention in order to

provide the housing required for low income groups and necessary facilities and exemptions, and tax support and effective banking. Development of per capita standard of housing can also be suggested in the cities of developing and least developed countries through land use planning. Durable materials consistent with the climate can be used. It is better to reach household density in housing units to number one. It is required to prevent spiral growth of the city, especially in rural cities and at elite cities. A model of optimal and sustainable urban development with smart growth approach can be presented in the development of the city.

#### Conclusion

Results of this research show that housing development pattern in the middle region of Hamedan is not balanced. This requires a conscious planning integrated in the housing. More than half of the indicators in Hamadan are better than the average values of the state and the district town. In the research, the most deprived urban areas were identified in terms of housing.

Keywords: development, factor analysis, Hamadan, housing, SPSS.

# Analysis of Iran Subsidy Plan and Its Influence on Health Nutrition and Food Security as One of the Urban Health Indices in the Tetraploid Regions of Qom Megalopolis

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## **Extended** abstract

## Introduction

Recent changes and challenges in the field of urban health are considered greatly in world. Wide changes have been made in public health during the last century. One of the most important examples of public health such as nutrition is people's attention to the role and function of government policies. The past rulers of different countries had done actions according to their micro and macro targets. One of the most important examples, especially in the developing countries that suffered from economic failure, is policy issue and the subsidy. Subsidy is the wish of all those who care about the health and welfare of the community, especially the vulnerable people. The law as a progressive design with a supreme goal can change the economic conditions, if it is implemented accurately and efficiently. In countries such as Iran where high levels of subsidy consumption and services are relying on oil income, to improve public welfare and gain political legitimacy and acceptability will be dependent on political issue and followed certain geographic and distribution system. This research has examined the effects of health indicators and explained nutrition and food security. The research necessity is due to attention and also researchers' advice to priority of ideal health policies in urban investment. Ecology studies of comparative pathology address association among mental social and physical illness and types of pollution, population density, housing units, economic status, poverty, unemployment, illiteracy, non-standard housing units and unhealthy living conditions. Certainly, all of these cases have direct, indirect and undeniable relationship with government policies such as subsidies. Hence, in geography-health as a major branch of

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geography in study of public health; it is obvious that if a community is unaware of the matter, a vacuum is created in the public health. Therefore, it will be suitable to have extensive studies, planning, and investment by focusing on what affecting citizen's health such as nutrition.

#### Methodology

The research has been done in Qom city during winter 2012. This is an analytical-descriptive research and data collection was based on field and library studies. We distributed 380 questionnaires among people (head of household) in each district based on Cochrane sampling. The questionnaires were designed and distributed among the population in three general characteristics (ethnicity, education, occupation, income and economic situation, the number of children and etc.) to satisfy the positive or negative impacts on the subsidies plan and its feedback on urban health (healthy nutrition and food security like meat, fruit vegetables and dairy products). Interview is one of the most important tools for analyzing public opinion regarding the implementation of subsidy and its effects on community health. With awareness of the issue of subsidy in the past years and its social and economic status, the researchers deal with the issue in Qom. The main objective of the research is study of impacts of the influence of social –economic processes on individuals and urban health.

#### **Results and Discussion**

The research findings about the effects of subsidy on nutrition and food security as health indicators indicate meditative and disturbing results in 4 areas of Qom. Thus, the questionnaires and interviews which had been done by a 16 number group show that food availability and security in districts 2 and 3 are not appropriate. In most cases, especially in districts 2 and 3, populations are immigrants. These conditions are completely affected by factors like education and the income of the head of household. This will eventually lead to poor quality in life such as a healthy nutrition and food security. These cases are in much better situation in districts 1 and 4. Besides the factors such as income, education and occupation of the head of households may affect quality of life for family members. Main goal of this research is evaluation of the impacts of subsidy on urban health and access of Qom citizens to healthy nutrition and food security. Many of the citizens are fully agreed with the reasons of subsidy. is the reasons are including a support for low income people and increase in their purchasing power, their enjoyment of national interests, reform in manufacturing structure and economic and ultimately establishment of social justice for the poor. More than 70 percent of citizens believe that after subsidy implementation their occupation condition is decreased and it had disproportionate impact on their lives. It is more being felt in district 2 of Qom where the heads of households are mainly workers. About 70 percent of populations believe that their income decrease due to the high inflation in these years and in many cases they fail to reserve money and spend their living. Therefore, more than 70 percent of populations are disagreed with continuation of subsidy and they believe that their life became more difficult after subsidy implication. Study about the consumption of meat, milk, fruits and vegetables among the 4 regions are the main steps of research. It shows that except district 4 all other areas are in an inappropriate situation.

### Conclusion

One of the programs that have overshadowed people life for years is subsidy which its purpose is creation and establishment of the social justice for all classes. Analysis of the results show that a large number of populations are not satisfied with subsidy goal and its implications. In general, from 4 regions of Qom, districts 1 and 2 are in better life quality and more satisfied. In spite of all ideal sand insights that a lot of researchers, economists, politicians, and ordinary people are agreed; the studied issue has influenced people lives. Finally, besides its positive aspects, the most important principles in creation of a vibrant and healthy life are faced with many problems. One of the objective examples in research results is the rising trend of abortion, dead or defective new born or the problems of fertility may threaten population health in the future. With many problems such as inflation, unemployment and the sanctions; problems such as healthy nutrition and food security should not be ignored simply.

Keywords: food security, health indexes, nutrition security, Qom megalopolis, subsidy plan, urban health.

# Spatial Distribution of Residential Landuse in Urban Density and a Review of Its Role in Sustainable Development Using GIS (Case Study: Miandoab City)

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### **Extended Abstract**

## Introduction

Residential land use as the most important urban usage involves supporting activities, for basic and everyday needs of residents, covers most of the areas in cities, and constitutes significant and various domain. In other words, besides physical location, residential land use involves the entire residential environment including all basic needs, services and facilities for family welfare and employment, education and health care plans. Importance of housing and residential usage in urban environment is to the extent that it is proposed as one of the community development indicators and yet is considered as the criterion to improve the living space quality. On the other hand, a large part of the construction of residential buildings is life forms. It is important to study housing, residential density, and the planning. With a comprehensive view of all aspects of planning, housing, weather and natural conditions, socio-cultural and economic factors should be considered in urban management. Residential users refer to the levels based on the land use map for construction of residential units.

The distribution and balanced development of residential land use have most important influence in city area. The important point in residential usage is social and environmental imperatives. Finally, improper location of these spaces can lead to poor service and environmental problems. This may cause uneven density in the city. Density level as a criterion for the establishment of population and urban infrastructure development projects is of great importance. Optimum density shows a control variable and show that it can provide enough air and open spaces for all housing units, enough space for all the necessary facilities and services in urban and community and create a sense of openness and security private area for residents. Thus, the density is discussed as one of the most important concepts in urban planning and urban planning decision-making.

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#### Methodology

In present study, through a "inductive, descriptive-analytical" approach, in addition to assessment of the current situation, distribution of residential spaces and transmittal of Miandoab city are investigated in urban density including net residential density, net urban density, gross urban density, and building residential density. Then, in addition to comparison of residential usage situation in Miandoab city with specific standards and the density of the mentioned types, we determined requirements to the residential usage in different city areas. Miandoab city because of high immigration and incorporation of surrounding villages are connected to the legal limits of the city, with different densities in different areas of the city. In other words, land prices in some areas of the city have been increased in density. However, the regions surrounding the city are far lower in density. The major reason is the culture of village life among the city limits in recent years. Therefore, this study will attempt to continue with the study of various densities in Miandoab.

### **Results and Discussion**

In this study, we tried to evaluate the distribution and dispersion of residential uses in Miandoab Meanwhile, per capita density in residential, construction, municipal, and other uses.. The results showed that the net residential density in the Miandoabnb city leave areas between 201 to 250 people. This represents a large residential area more open and horizontal expansion of the city and is vacant land within the city limits. This can result in a net density of urban population the highest density regions with densities of 50 to 100 people has occupied 86.46 percent of the city. The net density of 201 persons or more in Sect city, a small percentage of the city, is made of % 4.8. These areas are located in the old tissue and downtown commercial center of the city. Most trips within urban areas can lead to heavy traffic in urban areas. Therefore, this part of the plan seems to be required. More than half the city has a density of less than 50. This implies that in addition to gardens and vacant lands within the city limits, it covers surrounding villages in the area and residents of urban residential environment are unconventional.

### Conclusion

The results showed that the highest density of residential construction in Miandoab density is between 30 and 50 people. In other words, the cost of land in some areas has prompted an increase in the density in the city while rural areas contain rather less density. This indicates the presence of open spaces in residential areas. The main reason is the join of the villages around the city in recent years. These areas are located on the outskirts of the city.

Keywords: GIS, Miandoab City, residential land-use, spatial distribution, urban density.

# A New Approach to Redefinition of Political Geography

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# **Extended Abstract**

## Introduction

Understanding of political geography requires perception interaction of geography (space) and politics (power) or geographic themes interaction such as space, place and territory with matters of politics, power and policy. Since the term of political geography by Robert Jacques Turgot (1781-1727), French philosopher, there have been various definitions and interpretations about this science. These definitions and interpretations are mainly influenced by the dominant paradigm (determinism, chorological, etc.) and specializing commentators. The interpretations of the affected schools are adequate to "political geography as the study of the interaction of space and politics". Scheme of political geography has been reflected in the major works of political geography and the consequence of this diversity of definitions and interpretations has led to confusion for students. Questions and answers on the Iranian academic community show these statements and it has no intelligibility need at least for graduate students. Hence, the definition of scientific and applied is inevitable for research areas and academic necessity.

## Methodology

This present article has the fundamental nature with interpretive - analytical methodology. It attempts to use library resources within the understanding of geography and political science. The main method of this study was a descriptive-analytical approach. It has been carried out by a literature review in library data. This research has a fundamental nature within the framework of fundamental concept of territory to delimit the scope of concept and case of political geography science.

## **Results and discussion**

Politics means regulated domestic and conduct of foreign affairs. Accordingly, political geography attempts to study the political system of territory (Political Organization of Space) in domestic and abroad (Interaction space). In other words, the issues of territory, natural features and capabilities and its material and natural actions and reactions show spatial phenomena from the politics. Political geography is born when spatial phenomena interact with the politics. In this case, understanding of nature and human in the one hand, and human and the politics has

important function in the definition of political geography. Certainly, understanding of political geography requires understanding the interaction of geography (space) and politics (power) or interaction of geographic elements such as space, place and territory with matters of politics, power and policy. Territoriality is geographic human characteristics which represents individual and group efforts to protect their identity, property and the environment where they live and they belong to. The human territoriality action orientation appears in forms of influence, operation, interactions, limiting access, claims ownership, sovereignty management, monitoring and themes of a geographical domain (place, space, environment, town, village, country, and region). It contains the affairs and fields of human biology (including politics, economy and culture). Part of this action has innate natural property that territoriality and part of it is outcomes of the human excesses and domination. Hence, the concept of geographical territory and boundaries reflects geographic scope of sovereignty, jurisdiction and ownership of political units and social actors.

### Conclusion

From the perspective of political geography territoriality behavior is geographical - political strategy to achieve specific goals like monitoring of geographical space to maintain or gain power or resistance. Territories are not natural features but they are outcomes of the various activities and social processes in which space and community are linked together. Therefore, territory has a concept beyond the space and reflects the human's authority, power and control. The territory and the territoriality are foundations of political geography issues. Accordingly, political geography as a subset of human geography is the science that investigates political aspects of geographical space in the form of power relations (in coexistence aspects, challenge, conflict and war) whit human territory and territoriality. Accordingly, territory has content more than just a space and is a reflection of the authority, power and control of the government. Territory element is the influence of power, domination and ownership that supply mainly material resources and sometimes no material of power. Hence, territory is manifestation of power relations and interactions between spatial units that they claim its ownership, governance and management.

Keywords: political geography, politics, territory, territoriality and power relations.

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# Changes in the Demographic Structure of Islamic Republic of Iran: Pathology and Assessment of Its Potentialities in Security Issues

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## **Extended Abstract**

### Introduction

Explanation of influencing affairs such as war and international crisis, collapse of the bipolar world order, and structural change in national and international security is easier than that of social, economic and political circumstances in the world. One of these issues is evolutions in the population structure. This issue, today, is one of the most important challenges in the security of the states. In one hand, the structure and peculiarities of the population such as growth, age and gender distribution, migration, marginalization and informal communities, inequality in social services, environmental pollution, and traffic, waste of resources and excessive consumption of energy are very important in the national policy. On the other hand, these issues have entered into the realm of global security and international relations and they have created serious problems for states. Generally, population issues have a deep relation (director indirect) with security issues and play essential role in weakening or strengthening of the national and international security, as well as in organizing of politics of the security of states in internal levels.

Demographic factor can be effective in assessment of the security and political power, according to coordinates of national social characteristics. Therefore, macro planning is important in each country according to population data (the scales at local, national, regional and international levels). For example, the balance or imbalance of population structure can affect the issues of education, welfare, services, unemployment and, generally, the national security issues at micro and macro levels. The aim of this paper is to investigate the damages and potentialities of the security of the Islamic Republic of Iran according to the structural changes in population in order to obtain greater recognition of security issues with a better understanding of population and its properties such as reduction or increase in population, population distribution and changes in population age pyramid and etc.

## Methodology

Methodology of this study is descriptive- analytical and required information has been collected through library research. The information gathered from sources such as books, magazines, online articles, and newspapers.

#### **Results and Discussion**

The fundamental question of this study is that what are the impacts of population structure changes of the Islamic Republic of Iran on its security in national, regional and international levels? To investigate the issue, we have used the theoretical approach of Barry Buzan. This theory is a new framework in security studies. It assesses different dimensions of security, i.e., political, military, economic, environmental and social dimensions. Results of the study as a descriptive-analytic research in methodology show that Iran is getting to experience the new demographic system in which the effects on the security are including the unequal distribution of population, migration, rapid urbanization, transition of age structure, the elderly, families change, gender inequality, poverty and inequality, environmental degradation and so on.

In general, a weak economy will directly affect the structure of the population. Therefore, national security procedures will have to deal with the challenges as well. Reduction in military ability and power along with the challenges in population will affect the problematizing hardware security. For example, it will problematize the potential of the effective protection from the borders of the country or defending against military invasions. However, any internal challenges which bring changes in population structure will challenge the country's security in the outer surface.

#### Conclusion

In Buzan's approach, security aspects have five dimensions of military, economy, society, culture, politics and environment. According to him, the threats such as invasion of a country to the territorial integrity of other countries, uncertainty in the stability of the state organization; feeling of un-identity in social groups, climate change, loss of biodiversity and forests, expansion of deserts, decline of the ozone layer, growth of the unemployment, bearish trend of welfare and production of added value are objective constant and measurable threats. For this reason the Islamic Republic of Iran experiences the new demographic system with effects on its security.

Keywords: Buzan theory, Iran, population, security.

# The Concept and Components of Discursive Territoriality in Critical Geopolitics

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## **Extended** abstract

## Introduction

Territoriality is considered in the political geography and geopolitics as one of the fundamental issues. Territoriality is man-made political structure that seeks to divide space. Territoriality is political nature or the nature of dispute and no existed without division of space into separate parts and the exclusive allocation of space. Therefore, territoriality is purposeful process that may pursue various purposes, including economic, security, identity, stimulus or even emotional. This paper intends to use the three elements of "space", "power" and "identity" to explain the formation process of discursive territoriality. This result can achieve the ways in which critical geopolitics scholarship has understood and made use of discourse analysis.

Discursive territoriality is " process in which the individuals, groups, or dominant countries for the control and management of geographic space to your desired geopolitical and political order, beyond the discourse in which hard power to control space so that those who exercise authority over them are not realizing such a process". By the definition, discursive territoriality is the practical relations between "space", "power" and "identity". Each of these three components is referred as social phenomena in the context of the three components of their meaning. The most important element of this concept is power. The definition of power used in steven lukes is the special nature contrary to the classical theories and new theories of postmodern (or foucault). 'Power' is a concept in which society is divided into two poles obeys and ruler. Power in this view is something that is in the hands of some people and not the others. Despite the effective application of the definition of the concept of power steven lukes in discursive territoriality but

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actually is inefficient to explain some geopolitical discourse. Hence, to get out of this trap, we used of nietzsche's will to power and the forces of action and reaction deleuze. He explains by borrowing from nietzsche's will to power, both proactive and reactive power.

#### Methodology

The research is fundamental and using descriptive-analytical method. The method of data collection is libraries and the internet.

#### **Results and Discussion**

What will be followed by the meaning of the expression "discursive territoriality" and its three components of the "space", "power" and "identity", is that in addition to the obvious dimension of territoriality through territorial expansionism and aggression, there are also the (soft) territoriality dimension mentioned in the article as "discursive territoriality". Based on this proposition, we should mention discursive territoriality as the unit state or the units of imperial. To create the space homogenizing, the discursive territoriality implies that the dominant discourse (hegemonic) influence such ideas and goods. It has the culture in different geographical areas, so that the areas affected by specific thought patterns (hegemon) have favorable political and geopolitical order. Namely, nowadays the west's discourse does not have Ratzel territorial expansionism theory. However, the same kind of attitude and expansion will follow the areas of thought and culture to dominate the minds and hearts of people. Finally, control and monitoring of different geographical areas. In fact, today the west discourse to promote the idea of capitalism has many geographical territories to recruit in line with the goals of capitalist system.

Authors believe that the discursive territoriality is a useful analysis tool for explaining how to change the map of the south-west Asia (map 1, 1625 ad., before the treaty of Westphalia) to the present (2015 m.). The main argument of the paper is on this basis that the west discourses are in the needs of its discursive to product space in the south-west Asia. In other words, this time the west seeks their goals and strategies through its discourse to institutionalize that rather than through force and violence (hard power) to territoriality. The south west Asian players who played this role for the west, without the slightest feeling of being in line with the goals of the west, want to find out their own. The first signifier of west discourse for the territoriality of the south-west Asia was based on colonialism factor. However, this was not the end and the post-colonial period in nationalism for the territoriality of their favorite. But the most dangerous tool for the territoriality of the west in south west Asia, which now has also affected the area, is factor of religion.

#### Conclusion

In the texts associated with political geography and geopolitics, the element of space has attracted much attention for key character in this field, but it has been somewhat neglected in the role of the "thought". This paper tries to show what it is, right as this issue noted: how are general ideas and political and geopolitical ideas in particular with shaping particular discourses in the spatial consequences. It soon becomes operational across the territory, starting in the territoriality. The main principle in the territoriality is strategy and purpose not merely the geographical distribution of idea. The main argument of this paper is that the political thoughts shape the geographical origin of particular discourses and if ideas, discourses or other geographical areas, adopted the ideas of thought, even as imperfect or even native to the steps, but still not get rid of the spatial effects of that idea.

Keywords: critical geopolitics, discourse analysis, methodology, post-structuralism, territoriality.

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