

Advocacy Approach in Urban Planning (Case Study: Golestan Neighborhood of Sabzevar City)

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Extended abstract

Introduction

Today urban performance not only depends on the presence of physical capital, but also increasingly depends on human and social capitals. Cities are beyond the appearance. Social and cultural aspects of each city are regarded as latent aspects in urban planning, which have received less attention from theoretical and practical fields due to their non-physical nature and the difficulty to understand. Referring to the evolution of urban planning theories, this research attempts to study Paul Davidoff's advocacy planning approach as one of the first intellectual principles in social, cultural and urban planning. The theoretical framework of this research can be selected with regard to a number of indices and in the light of theoretical principles of urban planning, planning design and research experiences worldwide, especially in Iran. Citizen participation in urban planning requires pattern designing. The plans and decisions are already designed and made in technical-centered pattern. Exchanging ideas with people and collecting public ideas and information can be done as the main part of the plan is performed. Therefore, public comments are not the reference for decision making. In this pattern, real participation of people and their active presence in the program is not possible because of the focus on the functional tasks and the importance of experts' ideas. In step by step pattern, powerful companies and individuals increasingly gain more profit in preparation and implementation of designs and have more influence on decision makings through resource allocation and planning systems. In supportive planning pattern, urban planners should defend people's rights as their advocates against powerful beneficiary individuals. In sex-centered planning, the focus is on the necessity of coordination with people, acceptance of controlling groups and classes, as well as paying attention to values, human culture and cultural diversity in programs. Therefore, by studying the advocacy planning examples, their pros and cons and the threats before them, this

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research has attempted to determine the advantages and disadvantages of this approach in Golestan district in Sabzevar.

Materials and methods

This study is based on document reviews (reports, books and scientific and valid internet resources) and field studies (questionnaires, observations, interviews). Qualitative method and SWOT technique are used to study intellectual and behavioral aspects of participation. The texture of Golestan District is examined by SWOT technique through the participation status in urban management planning in order to identify pros and cons, opportunities and threats to maximize pros and opportunities and minimize cons and threats in citizen participation. The sample includes 81 heads of household in the district who volunteered to take part in the research. The data were collected from interviews performed by experienced researchers.

Results and discussion

Golestan district with a population of about 765 people is located in Sabzevar. The district with the size of 6.7 hectare is considered as one of the areas which require renovation and improvement in the detailed urban plan. Investigation of the current situation indicates that this district is always faced with many urban problems. This fact has made the district known as one of the undesirable districts in the city. In the research area under the study of urban planners, some measurements have been taken in line with advocacy planning purposes in order to defend the residents' rights. Then, by holding seminars with residents and completing 81 questionnaires by heads of the households in the research area, it can be inferred from the results that high social capital is potentially available for the residents of the district. The pros and cons, opportunities and threats were also collected and the following strategies were proposed according to them (pros and cons, opportunities and threats):

Aggressive strategies (maximum-maximum)

- Attracting residents' cooperation and institutionalization in interventions of texture reconstruction by the use of traditional and religious social capitals among people
- Training and improving the elders' skills and stating their requests and local problems
- Approach change of municipality from a mere service institution to a social- cultural one
- Preparations for structural and functional expansion of nongovernmental organizations (NGOs)

Defensive strategies (maximum- minimum)

- Strengthening social solidarity in districts and promoting the urbanization culture
- Holding meeting with participants and promoting the sense of social responsibility and collective consciousness
- Presence of planners as guides beside the heads of households in the meeting held in mosques for better planning
- Management stability in plans and urban managers' look from bottom to people

Competitive strategies (minimum- maximum)

- Using young and motivated human forces for participation in plan development
- Developing legal mechanisms to guide citizen demands for urban planning
- Considering the local development-centered approach in urban management planning
- Developing legal mechanisms to guide citizen demands of urban management

Conservative strategies (minimum- maximum)

- Preventing cross-sectional, emotional, non-scientific and non-specialized decision makings
- Decreasing cultural, ethnic and local conflicts
- Improving and training skills of the youth and preventing conflicts among them

- Holding meetings for urban managers of the district and justifying them for cooperative planning

According to SWOT analysis, it can be argued that the district requires a plan in which people are the centre of attention. Therefore, a people-centered planning based on people cooperation can be an appropriate strategy for management.

Conclusion

According to the results, it can be concluded that Golestan district can reach permanent development if in the first place the residents are guided towards cooperative works, in economic, social, cultural or physical and environmental issues. Secondly, the current urban management should leave its former views and take steps toward an integrated management and assignment of authorities to local managements with a systematic view. According to the results, it can be concluded that the district requires a plan in which people are center of attention. Therefore, a people-centered planning based on people's cooperation can be an appropriate strategy for planning. Hence, it can also be concluded that advocacy planning with great attention to people's cooperation can be an effective approach for improving the local situation in Golestan. Finally, the results claim that Davidoff's advocacy concept is the only compromising way between proficiency (specialty) and political responsibility. This viewpoint is one of the most important ideas in participation and social issues.

However, the following suggestions are offered about the application of local advocacy planning theory:

- Planners as people's advocates should attempt to be representative of the residents so that people's participation will not be merely a demonstrative one.
- Specialists should check, adjust or reject demands based on professional (scientific and empirical) standards. It is completely possible that a planner changes people's demands to logical and legitimate technical plans. However, the problem arises when the local community asks its advocate something against his professional standards. In this case, the advocate is confused by his advocacy and technical judgments. Thus, he should act as a facilitator to prioritize benefits of people in everything else.
- Advocacy planners should support poor communities for rehabilitation. They should guide them towards more essential social changes.
- Urban management supports the plan in every aspect by providing the costs of advocacy planners and plan implementation.

In order to achieve a better judgment and choose final options, the planners should pay more attention to participatory indices.

Keywords: advocate, advocacy planning, Golestan Neighborhood, Partnership, social issues.

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Analysis on Measurement of Citizen Participation in Urban Aestheticization (Case Study: Region 6 of Tehran)

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Extended Abstract

Introduction

The need for beauty is one of the long neglected requirements in urban studies. Human beings essentially love beauty. In this regard, urban plans are required to promulgate the love of beauty and nature besides the functional dimension in order to satisfy citizens. Urban aestheticization is always examined both in functional and visual terms. The functional dimension is related to the human body and the visual one to the human spirit. Therefore, urban landscape can satisfy citizens by ensuring their health of body and soul. The important point in aestheticizing the environment is that the totality of qualitative factors in the emergence of urban spaces causes formation of a sense of belonging to and affection for the residential environment. This is followed by a sense of responsibility and compassion to that place. This, in turn, provides the ground for citizen participation in urban aestheticization affairs. Consequently, a constant process of environmental quality improvement is achieved which ultimately leads to citizens' satisfaction. Regarding the importance of urban aestheticization, the question is: What can be the solution to urban landscape problems? In the recent decades, citizen participation in municipal affairs has become a focus of attention as a key factor in urban development studies. Urban managers should consider the demands and needs of people in planning and implementation. In other words, municipal programs and projects should be an index of a city as desired by citizens. As a building engineer considers the tastes and desires of the owner of the building, urban managers and planners should draw a map of the city based on the demands of all citizens. Citizen participation is one of the basic parameters in modern cities and metropolises and is regarded as a means of achieving human development and an independent value in the development of urban communities. It would successfully achieved as the people actively participate in the process of implementing projects. This is why public participation is considered as one of the most important factors in the success of projects. The 6th district, as the heart of Tehran, is one of the densest areas in daytime and also faced with many urban landscape problems (environmental advertising, informal employment, fabric burnout, and etc.) due to its high accessibility. Now that we are faced with a lot of problems in the 6th district of Tehran especially in terms of urban landscape and beauty, the question is whether participatory planning might be the right solution? What factors increase or decrease the impact of citizen

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participation? In order to answer these questions, the present study has analyzed the status of citizen participation in urban aestheticization and important factors that affect participation so as to recognize the challenges and opportunities and offer strategies for improving citizen participation. Most of the studies conducted in the recent years on participation were concerned with the general set of Urban Administration and the Municipality, whereas the Municipality has different organizations each with separate duties requiring separate studies. Due to disregarding urban aestheticization and its importance, this study chose the Aestheticization Organization as its subject of study. Besides determining the degree of citizenship participation, citizenship awareness and the aestheticization organization's accountability, the present study has investigated the relationship between these factors. Using the results obtained from this study, the experts of this organization can identify relevant pathologies, challenges, opportunities and capacities and adopt appropriate strategies and policies to improve the current situation.

Materials and methods

The method used in this article is descriptive – analytical and the information is collected by using questionnaire. The samples of this study have been selected from the residents of Tehran 6th region. The sampling of research was done in simple random approach and sample size was estimated by using Cochran model and collection data were analyzed in SPSS application by t-test, crosstabs, chi square and Spearman tests. To evaluate the status of variables, a t-test was used. In this study, we had both nominal and ordinal variables. To examine the relationship between ordinal variables, the Spearman's test was used and to examine the relationship between nominal and ordinal variables, the Crosstabs and Chi-Square tests were used. The correspondence tables were laid out and the data, after being recoded, were analyzed by the Crosstabs and Chi-Square tests.

Results and discussion

Based on the investigations about this district, analysis of the results showed that citizen participation in aestheticization is low in the 6th district of Tehran in different fields and concerning different people. The greatest weakness of citizen participation in aestheticization is related to the low level of awareness and the unsatisfactory performance of the Aestheticization Organization in providing cultural grounds. If the organization covers these weaknesses using appropriate policies, it can to great extent increase participation. To understand the reasons of low participation in the 6th district of Tehran, we conducted an interview with Mr. Mohammad Toluee (Director of public participation in the Aestheticization Organization). Mr. Toluee mentioned poor citizenship awareness as the main cause of low public participation in aestheticization programs. He stated "Many projects have been done concerning the participation of citizens but, due to low awareness and poor education of citizens, they were not embraced by the people." According to the results, there is a significant relationship between education, gender, employment, marital status, awareness and duty accomplishment on the one hand and participation on the other. However, there is no significant relationship between age and participation. The participation rate increases with an increase in the level of education and citizenship awareness. With an increase in the participation rate, citizens are more interested in doing their duties. The results also show that women, as compared to men, and married individuals, as compared to single individuals, have lower participation rates. Regarding the employment variable, the lowest level of participation belongs to housewives and unemployed individuals whereas the highest rate of participation belongs to employed individuals and students.

Conclusions

One of the primary goals of each project in today's world is to increase citizenship participation as one of the most important factors in the success of urban planning. In practice, however,

participation does not take place in urban planning in Iran because of poor attention to infrastructure and ineffective participation. As a result, despite their huge costs, urban planning projects do not achieve much success in Iran. To do successful projects, we need to raise participation rates. To this end, we should also pay more attention to issues such as educational status, age, gender, citizenship awareness, and location. Taking the importance of urban aestheticization into account, especially in Tehran Metropolis, this study focuses on the 6th district of Tehran and analyzes the factors that increase or decrease participation. It was found that with the improvement and expansion of small and infrastructural issues such as awareness and education, participation rates are also increased. Therefore, we can conclude that effective factors in and requirements of participation should also be considered in projects besides participation itself.

Keywords: Aestheticization Organization, citizenship awareness, duties of citizenship, participation of citizenship, urban landscape.

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Urban Growth Modeling of Maraghe City Using Logistic Regression

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Extended Abstract

Introduction

In developing countries, cities are dealing with uncontrolled growth that was beyond their capacity and infrastructures for keeping the population. Urban sprawl and population growth lead to unstable changes in land use/ land cover in urban and agricultural areas. In Iran, after the prevalence of master plans in 1960s, the urban growth was relied on automobile-based pattern and segregation of residential areas from administrative, industrial, commercial and recreational land-uses. This leads to urban horizontal development in the cities. Urban horizontal development gained much importance as it was understood that many of Iranian cities are located in next to rivers and the surrounded by prolific agricultural lands. Therefore, with the rapid urban growth in the recent decades many of these lands would be changed into other land uses.

Maraghe City is also one of the medium-size cities in East Azerbaijan province. It is surrounded by dense garden lands and, in the recent decades, many of these gardens were destructed because of urban growth.

One of the effective devices the planners can use in land uses change monitoring is stastical and spatial models. Logistic Regression is an information-based model that can explores the rates of driving-forces in the urban growth. This article explores the driving factors influencing urban growth and simulates them on the future growthes in Maraghe city using logistic regression model in IDRISI application.

Materials and methods

This article investigated the modeling process for simulating the spatial dynamics of Maraghe city with logistic regression. This model is a common method for empirically modeling and analysis of land-use changes. At first, using Landsat imagery from time-series of 1989-2011, we detected the land-use changes in 22 years period. The data used in this research were (a) land use/land cover created by Landsat imageries (b) DEM map (c) urban land-use map and (d) urban road maps. Dependent variable is the areas that had urban uses in 2011 and had not had those uses in 1989. Independent variables are eleven factors including elevation, slope, aspect, industry distance, agricultural distance, barren land distance, water surface distance, urban land distance, road distance, barren land Boolean and agricultural land Boolean. The independent

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maps were reclassified by FUZZY methods in IDRISI TAIGA and then both dependent and independent variables were entered as inputs to logistic regression model in IDRISI. The results of modeling appear in the form of probability maps of future city and table statistics. For the calibration of modeling we have used of ROC (relative operating characteristic) method.

Results and discussion

The survey of land-use changes in past 22 years indicated that the urban areas increased from 350 hectares in 1972 to 600, 624, 1049 and 1799 hectares in 1985, 1989, 2000 and 2011, respectively. Over the 22 years, about 371 hectares of the surrounding agricultural lands were changed into urban areas. Dependent variables in this study is the areas covered by urban growth in the recent 22 years and was a Boolean map that the areas with 1 value is urbanized regions and those with zero value non-urbanized. Independent variables are driving forces affected urban growth as a dependent variable. In this research, the eleven factors recognized as independent variables were inputted into the model in GIS application after initial standardization. The result of modeling was in the form of probability map and statistical table. Urban growth modeling was carried out for two years of 2011 and 2033. The first was obtained by the data of 1989, the probability map of 2011 was created and compared with actual map of 2011. The results indicate a high corresponding between these two maps. Then the modeling was carried out to predict the future 22 years. In probability map, the cells are ranged from 0 to 1 values and also the cells close to 1 value were suitable areas for urban growth. On the contrary, the cells close to 0 value were the unsuitable for urban growth. Subsequently, the areas more capable for urban growth were extracted in a Boolean map in which the value 1 is the most capable for urban growth.

ROC method has been used for calibration of the modeling. Namely, to the number of independent variable, the modeling was performed without a variable in every stage and the ROC rates were exploited. The results indicate that variable of distance from urban lands has the most influence on urban growth and subsequent variables are the elevation, distance from industrial land-uses, distance from agricultural lands and distance from roads, in order. Therefore, the suitable areas for future urban growth were the lands located on northwest Valiasr town and subsequently non-urbanized areas were the adjacent areas of the city.

Conclusion

Logistic regression modeling was used to improve social, economic and biophysical understanding. It affected the urban growth and finding of suitable areas for Maraghe. Maraghe city experienced great development by the recent decades, as in the past 37 years the urban growth was more than 501 percent. However, the amount direct changes of agricultural lands into urban and industrial land uses were very negligible. But the agricultural lands were first changed into barren land areas and then into urban and industrial land uses.

The urban land use change in developing countries is more than the developed countries. Therefore, the understanding of causes and driving forces of urban growth and modeling of the impacts on urban growth is necessary for controlling of the growth.

Keywords: driving forces, logistic regression model, Maraghe City, urban growth.

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Modernity and its impact on women identifying in urban public spaces (Case Study: El Goli Park (Tabriz))

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Expanded Abstract

Introduction

Women in traditional Iranian society were living in “Andaroni” most of the time, i.e. living inside home; life outside home and neighborhood was considered “Birooni” life and was unauthorized for women. Travel in different parts of city was permitted only with a male family member, or whenever there was an important reason for that. Women’s entertainments were limited to attending religious ceremonies, spending time at home with neighborhoods, friends and family at home, or some outdoor entertainments with family members such as going to garden. Thus, in the traditional urban planning ideas, the women were belonging to private spheres and men were belonging to public spheres.

If we define modernity as the lifestyle of today's new and modern society, as a substitute for old life style and against it, it will be faced with reshaping of cities and urbanization and the emergence of new social institutions, attendance of people in different areas and the formation of legal system. Modernity has changed all aspects of life in the world, especially in Third World countries such as Iran. Presence of women in urban public places is one of the main deformations in Iranian cities. The purpose of this research is to investigate the formed changes in order to accept woman in municipal public areas which are realm of modernity. Urban parks as one of the most prominent manifestations of modern urban spaces and the results of modernity are selected for this research. In this study, it is emphasized on civil and structural changes in the society and also on the choice of being in the public areas. In other words, by emergence of modern institutions such as universities and educational institutes, and entrance of women into the labor market, their presence in the public areas is largely inevitable. These are not the only causes for the widespread presence of women in the urban public spaces; a change in customs, interests, behavior and lifestyle has also a huge impact on the change.

Materials and methods

In this research, an objective based research methodology is applied, and the nature of the research is descriptive-analytic. The study was conducted in Tabriz El Goli Park. The sample included 196 female residents of the city of Tabriz. They were selected and studied by random

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sampling. In addition to the questionnaire data collection, interviews, observation and life experience have also been employed.

El Goli (Shah Goli) is one of the most important public parks in Tabriz. It is located in 7 kilometers far from the city center. El Goli Park with an area of about 160000 square meters is located in the District 2 of Tabriz Municipality. This place has been created at the age of the Ağ Qoyunlu and has been expanded at the age of Safavids.

Results and discussion

Results of this study indicate that the main problems for the presence of women in public spaces are fear of persecution, harassment, annoying look at them and staring by others, rather than family prevention, customary issues, and lack of facilities. Therefore, even though many of the taboos of women presence in public spaces such as parks are broken, but there are still many negative mentalities towards this presence. In other words, it is true that the men and women of today Iranian society live in modern place and time but they are still far from modern mental visions.

People of all ages go to the park with a variety of purposes. Users of the park do not go to the park for just resting and relaxation. The women more than 50 or 60 years may go to the park with purpose of rest and relaxation, but young people are seeking other purposes. They might go to the park for dating, social relationships, show off, satisfying the requirements of freedom, independence and identity, and in general, to see other people and be seen by the other.

Nowadays, regarding the presence of women in public spaces, certain changes have taken place as compared with the traditional women. Women have moved out of the limited space of house and inner space; facilities such as radio, TV, Internet, and satellite have provided new forms of relations and great opportunities for links with outside the house for women. Nevertheless, most of the women who are using the parks are going to the park with their families (about 50 percent of them). However, 10 percent of women have stated that they were alone in the park, which represents the hidden effects of modernity in breaking many mental idols and traditional values, at least in the small part of the community.

With all of these interpretations, the results indicate that individualism as an evidence of modernity is not yet formed in many women and men. The formation of the individualism for men and women are different. For men individualism does not change their sexual roles, but for a woman, it needs her to be economically independent and self-conscious, and the society should stop considering her only as a mother, a wife or generally as the second sex.

Conclusion

It should be noted that this study was conducted in one historic Metropolis (Tabriz), which is the gateway to modernity in Iran. However, as one travels from the metropolitan cities toward small towns and villages she/he will be faced with more traditional cultures. The extensive diversity in large cities is based on "being anonymous" and this puts people together as they are pursuing a different patterns of life. This, in turn, makes the place attractive. Thus, the intensity of many behaviors, actions, attitudes, and even new types of coatings are results of "audacity and modernity". It can largely be seen in major cities and reduced in the small cities, towns and villages. Therefore, the modernity has caused many dynamics in cities of Iran (especially big cities). As a result of the dynamics and evolution, "All the fixed and frozen relations, with the old and venerable prejudices and opinions and their affiliates," as Marx said, are being marginalized or being driven. Although the solid and firm opinions are disappearing, but there is still a long way for women to live in a society in which they can feel comfortable and secure.

Keywords: modernity, parks, public sphere, Tabriz, urban public space, , women.

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Allocation of Optimum Paths for Bicycle Traffic Based on Local and International Standards Using AHP (Case Study: Kerman City)

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Extended Abstract

Introduction

Following widespread use of automobiles and rapidly increasing use of motor vehicles, the bicycle gradually lost its importance as a vehicle in many cities. The bicycles are used just for recreation aspect at a low level. However, the bicycles are still used as a vehicle in cities like Isfahan, Kashan and Yazd. The city of Kerman is a major, densely populated and historic city in central and south-east Iran. It has high potential for design, development of biking trails based on the criteria such as the age structure of the population (80 percent of the population is in the age ranged from 10 to 50 years), numerous historic and tourism sites across the city, academies (4 public universities, 7 non-profit universities, 2 Azad universities, 12 applied-science universities and 4 engineering and professional universities) and a large number of students. Hence, based on the field survey on the path networks and reviewing them by the international location index, the optimal routes for bicycle traffic in the city was proposed and evaluated in this study.

Materials and methods

The study has an applied-developmental research method, and survey in terms of the research framework. It was performed in Kerman. First, Iranian approved regulations and reputable international regulations such as AASHTO and local regulations and standards like "Chicago Cycling Union" and "Illinois Department of Transportation" were studied for gaining required standards. Accordingly, criteria for an optimal bicycling route were extracted. Then, after the completion of theoretical and methodological data including geometric, physical and transport information on the study area in Kerman, information layers were produced in the form of a flowchart and table. Then, the numerical value of each index was calculated. The scores of these indices were rated based on the Delphi model (based on expert opinion). The reverse ranks of layers were considered as the weight of that index in the IHWP model. In the Delphi model, the four international indices (BCI, BLOS, IDOT, and CBF) were rated based on their importance according to expert opinions in this field. The paths were valued and prioritized based on these indices, the proposed quality standard, and the conditions of paths according to the studied conditions and overlapping of the obtained layers.

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Results and discussion

Study of the sections in terms of the Bicycle Compatibility Index (BCI) shows that the sidewalks of Jomhoori Eslami St. and Shahab St. received the highest scores. These paths have a higher degree of quality and desirability because of low volume of truck passing, proper width of sideline, low traffic and proper parking spaces, among others. Study of the sections in terms of Bicycle Level of Service (BLOS) index suggests that the pathways of Jomhoori Eslami Blvd, Shahid Sadooghi Blvd and Shahab St. received also the highest level of service. A reason why Shahid Sadooghi Blvd has a better desirability based on this index is that the BLOS index is more dependent on pavement conditions and path width compared to the BCI index. Study of the sections in terms of the bike map index of "the Illinois Department of Transportation" (IDOT) shows that Jomhoori Blvd, Shahid Blvd Sadooghi, Shahb St., and Resalat St. received the highest level of service based on this index. Due to the extreme sensitivity of this index to the number of crossing trucks, Daneshgah Blvd with a high truck passing condition is ranked as the last. Review of the sections in terms of the bike map index of "Chicago Bicycling Federation" (CBF) indicates that Jomhoori Eslami Blvd and Shahid Sadooghi St., which achieved better results in the previous methods and indices, gained fewer scores in this method due to the high speed required by this plan. Instead, Khaju St. and Zarisef St. obtained better scores than previous methods because of lower speed of cars.

Conclusion

In this research, the Bicycle Compatibility Index (BCI), Bicycle Level of Service (BLOS), Bike Map Index of "Illinois Department of Transportation" (IDOT) and Bike Map Index of "Chicago Bicycling Federation" (CBF) were calculated for paths of the bicycle networks. Then, the results obtained from each index were presented with overlaps to be employed in decision-making process. In each of these indices, more emphasis was on special cases which led to different results in certain paths. To measure the impact of various factors on the path desirability, all indices must be viewed together to obtain reliable results. As mentioned before, the main emphasis of these indices was on the path width, speed limit, traffic volume passing, and in some parameters on the pavement quality and truck passing. However, factors such as conditions of crossroads along the path and local features such as the application of path, and the use of source and destination can affect the path desirability. None of the proposed indices had applied these conditions. It is suggested to use the IEI (Interswction Evaluation Index) path section index and the RSI (Road SafetyIndex) crossroad evaluation index. They also apply the desired factors in more comprehensive studies by AASHTO, in 2006. The total value of the scores for each pathwas obtained according to the total score of the Delphi model and eventually reversed hierarchical analysis. The final score of each path in terms of desirability and suitability can easily be calculated. At this point, using the weight of each index from the Delphi model, the ratio of the overall impact score to the end result can be obtained. According to final results, Sahab St. and Jomhoori Eslami Blvd received the highest scores with the highest quality and desirability as well as the Daneshgah Blvd had the lowest quality and desirability for the purpose.

Keywords: bicycles transportation network, biking feasibility study indices, Inversion Hierarchical Weight Process, navigating template.

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Insights about Game Theory in Conflict Analysis of Land Use Change (Case Study: Tehran Dar Abad)

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Extended Abstract

Introduction:

Economy affects everything in current utilitarianism school. Land owners are usually going to change the uses of their lands and use it in other land uses with strong economic purposes. Green lands are considered by investigators to build villa and residential complexes for some reasons including high environmental quality and having suitable climatic conditions.

Today, with population growth and land limitations, the request for transformation and changes of these land use types has been increased and finally the beneficiaries and influential individuals are looking for maximum benefits. In this condition, the stakeholders are looking for more benefit and some organizations and statesmen are going to make sustainability in the area. Thus, the conflict between the interest groups appears and causes sometimes competition or contention for personal benefits. Environmental issues such as water contention, contamination, and land use change have multi-objective nature. They have many decision makers. Games theory can be considered as one of the suitable approaches, despite its lower application ratio to MCDM in environmental contention. Land use change crisis in Iran can be considered as an example of strategic game, because different decision makers and beneficiaries play a role in land use change. The beneficiaries look for their own benefits and purposes. They are ready to break many of impediments and break the law.

Material and methods

Game is defined as the reactions in which there is dependency and mutual connection between two or more sides and decision of each decision maker affects other decision maker's benefits and also influenced by their decisions. A game or contention model is prediction of the most important aspects of a contention and should be simplified to be understood easier.

In this research, a review was made of the literature of land use change, particularly garden and agriculture land uses of Darabad region of Tehran and available legislated laws. The land use

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change condition in Iran and its process were recognized to determine decision makers' opinions. In the next step, the decision makers' contention in 4 decision maker groups was simplified as shown in Table 3. Applied selections are in a manner that the introduced role-players had the most participation in land use change of Darabad area and this information was applied based on studying legislations of the country. In the next step, some options were introduced for each decision maker. It can be said that these are the only options which every role-player had in land use change of agriculture and gardens of Darabad, Tehran.

Objects	Code	Decision makers
Land use change with license and agreement	1	Developers
Selling lands to the developers	2	Land owners
Endowment of justification	3	Agricultural Jihad Organization And Decision Making Council
Intensifying the laws of land use change in urban and rural neighborhood	4	Government and congress
Encouraging the land owners in order to hinder selling their land	5	

Results and discussion

In the contention, the best condition for developers is a condition in which they gain the most benefit. Developers expect to develop without problem and they want not to face with any limitation and restrictions in their way. Land owners are looking for maximum benefit and expect free decision making in selling or keeping their lands.

Agricultural Jihad Organization and decision making council has the best legal condition for any land use change and land selling. The organization finally expects to export justification for lands in which land use change is needed.

Government and congress has the best condition and predominance for situations in which land use change doesn't happen or finally happens according to the available laws of land use change and causes environmental benefits.

According to the results, from 20 available conditions, 16 conditions have a balance according to the definitions. Condition 5 of developers and land owners has stronger balance. The condition of 1, 3, 4 and 5 has stronger balance for Agricultural Jihad Organization. Government and congress are stronger in condition in 1 and 5. While, if the result of contention is one of 5 or 1, it is suitable. In condition 1 environment is benefited and selecting this strategy will help preserve the environment. But the most environmental option is in condition 3 that environment gains the most benefit.

Conclusion

In order to control land use change, it can be suggested to revise legal gaps and footnotes in legislation in a manner that footnotes permit land use change for heir's lands, for lands with a specific area and for poor people. The changes can be allowed to predict other methods and filters and clear processes. They can also allow decision making in the case of land use changes for an organization to hinder disagreement and augments. It is preferably suggested that decision making organizations be role players in which environmental thinking is developed to interfere the future benefits of their decisions.

It can also be suggested that they can be classified based on desirability. The ecological value index of green and agricultural lands can be used for classification based on exporting ecological value index. By suggesting resource box for receiving taxes for land use changes we can support producers and by allocating some subsidies to agricultural land uses in some other areas we can persuade the farmers to preserve the lands, or support unsuitable land owners. Totally, application of market based tools is necessarily applicable for management of land use

change. By this strategy the land use change can be controlled according to the sustainability and suitability conditions.

Keywords: Darabad, economy, game theory, land owners, land use change.

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Changes of Urban Hierarchical System in Lorestan Province from 1976 to 2012

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Expanded Abstract

Introduction

Urbanization expansion, population explosion and population movement have changed very much the urban systems and urban patterns of Iran. Cities as major players of geographical regions should maintain and accept substantial role in terms of establishment of regional equilibrium and balance, because according to their size and functions they affect spatial and regional balance. In the last 50 years, cities because of economic evolutions and political interventions have been expanded more rapidly. It has been a reason that some big industrial poles, networks of Colossal cities and megalopolises with particular spatial order in the national and regional scales have been emerged into each otehr. One of the original characters of urbanization in developing countries including Iran is inappropriate spatial distribution of cities in the realm of these countries. In the countries, there is a metropolitan with several million people as a chief that has developed more highly and develop its political, administrative and socioeconomic influences throughout the country. Consequently, problems and issues will be penetrated into an urban network system.

Methods

The methodology of this research is descriptive – analytic and data are gathered based on the statistics obtained from five periods of census. The statistic population of the research is the urban points of Lorestan Province and the used models are Rank – Sized model, Anthropic Coefficient, Class Difference Limit, and City Primacy Indices. At the end, the suggestions suitable for urban system of lorestan province are presented.

Results and discussion

The aim of this research is to investigate the urban system of Lorestan Province from 1976 to 2012. The research findings indicate that based on the Rank- Size model there has been balance in the urban hierarchical system of the Province from 1986 to 1996, but in 2006 this balance has been a bit disordered. The numbers obtained from Anthropic Coefficient also shows that the urban centralization of the Province has been decreased during this period. The City Primacy Index used in this research, on the other hand, shows that there exists no City Primacy in the

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Province; instead, the mediated cities are in great importance in this relevance. An increase in the numbers of cities in the province might have undermined the spatial balance so that it is the most important reason for the converting of big villages into city in Iran for this period. Most of cities which add to the urban system of the province in the periods have populations less than 5 thousand people.

Conclusion

The numbers and data found from the indicators used in City Primacy Index in the province articulate that there is no more evidence from the Index in the province or the prediction ability is very weak. However, looking at the statistics and numbers of tables and figures, the inevitable and definite role of mediated cities of the Lorestan Province can better be comprehended in distribution of population and facilities throughout the country. Data and information obtained from the research obtained from various indicators and indices represent that urban hierarchy between the years 1986-1996 in this county in contrast with other regions has been more systematically located while in most of the other provinces such as Tehran, Mashhad, Tabriz, Kermanshah and etc. In the mentioned provinces there are great distances between City Primacy Index and second city. With the distance between the primary capital city and the subordinate cities are too high and this cause the emergence and exist of City Primacy Index in these provinces in all times. The expansion in the numbers of cities in Lorestan province is growing the increasing distance and distribution of urban population. Thus, Lorestan like other provinces is going towards City Primacy Index. Nevertheless, the situation of the province in opposite to other provinces of Iran show that the distribution of population become more equal and balanced while City Primacy Index has been one of the clear features.

Keywords: Anthropic Coefficient, City Primacy Index, Lorestan Province, urban hierarchical system, urban network.

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