Abolfazl Ghanbri\textsuperscript{1}
Mazhar Ahmadi\textsuperscript{2}
Souran Mostafavi Saheb\textsuperscript{3}

An Evaluation and Analysis of the Levels of Urban Sustainability in Informal Settlements of Mahabad

Date Received: 28 September 2013 Date Accepted: 21 June 2014

Introduction

One of the important results of modern urbanization, the emergence and spread of vulnerable neighborhoods in the text or margins of towns. Usually residents of these units considered the informal residents who live in cities but the reasons have not been able to absorb of the economic-social systems and a citizen and enjoy the facilities and utilities. The lack of logic dealing with the reality of achieving sustainable urban development poses a major challenge. By reducing the general level of people's lives, especially in urban communities during the past two decades by the UN's approach to urban sustainability was introduced. The task of sustainable development, reduction of unemployment, poverty and the dysfunction. Excessive expansion of Mahabad with severe immigration, demographic and physical changes have been inappropriate. The formation of community-based social segregation and

\textsuperscript{1} - Associate Professor, Dept. of Geographical Research, University of Tabriz.
\textsuperscript{2} - M.A of Geography and Urban Planning, Faculty of Geography, University of Kharazmi, Tehran, Iran.
\textsuperscript{3} - M.A of Geography and Urban Planning, Faculty of Geography, University of Kharazmi, Tehran, Iran.
replacement of low-income classes in marginal and old neighborhoods, disparities between neighborhoods and public facilities in the enjoyment of sustainability indicators and problems of social and spatial segregation, the city's stability is threatened. Therefore, the main objective of this study was to assess and analyze the level sustainability and unsustainability in urban the informal settlements in Mahabad and effort to provide solutions for their organization.

**Matherials and Methods**

The research method of present study was descriptive - analytical and data collection was survey and documentary. The sample size of 328 is obtained by the Cochrane formula and the method of distribution questionnaires and has been to a random sample and analyzed with SPSS software. Then determine the variables in each of the three components of "social - cultural", "economic" and "environmental" sustainability, such as the quality and age of building, type of durable materials, per capita land use, slope, percent literacy, number of households, dimension of households, leisure, families take advantage of opportunities, unemployment, occupation, load Dependents -income households in informal neighborhoods were analyzed separately. As the questionnaire is provided on the basis of factors identified in the research and the experts' view, therefore, the validity is confirmed automatically. Also, it is used to determine the reliability statistics Cronbach's alpha. Cronbach's alpha coefficient was 0/76, which indicates acceptable reliability. In this research, Softwares of Word and excel is used.

**Results and Discussion**

Stability Analysis marginalized neighborhoods in the city of Mahabad in terms of the physical body and four indicators of the slope, per capita land, building age and type
of material and the quality and durability, these results that in terms of the slope with the neighborhood WEST Karmandan which is on the down slope conditions are more favorable. While 9 neighborhood slope conditions better than 10 percent and not suitable conditions. This neighborhoods In terms of per capita urban area than the city of Mahabad and standards are low. Sanjan Abad neighborhood with maximum acceptable buildings is quality good buildings while the neighborhood POSHTAP; with the 5/36 destruction of the building is unstable situation. In the the neighborhoods of Koye Koye Daneshgah and Sanjan Abad of brick and iron materials used in buildings with 98.9 and 97.5 respectively more than other communities And In the general stability of the two neighborhoods in the type and quality of materials and withstand disasters is better.

To evaluate the stability of marginalized communities in Mahabad in terms of socio-cultural status indicators of literacy, the number and size of household, leisure and percentage of households benefit from the facilities were used. The total literacy rate in the neighborhoods of Sanjan Abad (83.7%) and Daneshgh (83.1%) than in other neighborhoods. In front of neighborhoods of Bghe Shayegan (7/72) and e Ashabhe (6/73) have lower literacy rates. Also female literacy rate as one of the important indicators of socio-cultural stability in the neighborhoods of Koye Daneshgah (79.3%) and Sanjan Abad (76.7%) than in other communities. 44% of residents of informal settlements of Mahabad city have stated that no such thing as leisure time and indicates that the socio-cultural sustainability of communities is low. A variety of leisure activities in the areas is very limited. In general, West Karmandan and Sanjan Abad neighborhood conditions are more favorable in terms of having the facilities and against neighborhoods Poshtap and Kani Sofi Taha terms of facilities have the undesirable situation. In the overall impact of all economic indicators showed that the neighborhoods Sanjan Abad in economic terms are better than in other areas and against Bghe Shayegan neighborhood is economically undesirable
conditions. This neighborhood with 16 percent unemployment and Burden dependent 4.7 people in the lowest economic situation. In fact, the lack of human and social capital formation in the these areas and costs resulting from the lack of physical and mental health, negative effect on other urban areas will follow.

Conclusions

The results show that, the sustainability is very low in all selected variables. But in general, the neighborhoods Senjen Abad, Koye Daneshgah and Shahrak Karmandan Gharbi to have more favorable conditions and terms of sustainability indicators than most other neighborhoods. In front of neighborhoods Posht Tap, Bghe Shayegan and Kani Sofi Taha the situation was less favorable and are a more diprived. The our findings appear to be the most important operational Strategy to reduce and moderating informal settlements in the city of Mahabad by using of strategies for organizing and enabling these neighborhoods at the national levels national, reginal and local is coordinated.

Suggestions to improve the informal neighborhoods of the Mahabad city are as follows:

- Encouraging and guiding residents to participate in all stages of decision-making, planning and environmental sanitation projects;
- Low-interest loans in order to provide jobs and living facilities, housing and employment based on the individual; also the identification of households without any type of insurance covered the families;
- Improving urban land use per capita in urban areas by increasing per capita In the culture, education and trade with government support and public participation;
- Active neighborhood centers (retail and street vending organized small-scale plus service locations) along with job creation;
- Creation of recreational facilities in communities and social programs in order to identify ways of spending leisure time of youth, women and men through a small useless dead spaces within the neighborhood green spaces and places to pause and hesitate to use residents and pedestrians;

- Planning for the problem of disposal of surface water and cover channels.