Surveying the Process of Physical Development of Sahand New Town and Defining Appropriate Districts for Its Future Development

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Extended abstract

1- Introduction

Human beings have many impacts on the land because of their management methods and different interventions. So, with regard to human beings potential capability, ecological capability has much importance for future development of land. On the other hand, appropriate development of cities depends on appropriate use of land potentials. Thus, considering land potentials and capabilities is the most important stage before site selection of cities and land uses on the land. According to these issues before any intervention, ecological capability of land should be assessed and considering this capability and social and economic needs, we should develop cities.

2- Theoretical Bases

The evaluation of land exploitation according to its capability is one of the most fundamental issues in sustainable development. For this purpose, selection of a suitable method is very crucial to strengthen the results with facts. In this study, the Ecological capability evaluation was selected as the appropriate method.

Ecological capability evaluation is to realize the potentialities of a land in the form of expected and achievable applications.

It is an effective step for land use planning and land development studies. Ecological capability evaluation can be performed for the purpose of reaching the maximum unity and compatibility of land use with potential capability of land in a specified scale. Suitability and desirability of a specific land use for land can be assessed using two physical and economic aspects. It should be noted that the economic analysis would not be
needed while a particular land use is risky and potentially dangerous for the ecosystem. In other words, socioeconomic assessment takes into consideration only if the land stage of the ecological set for the specified user is granted.

3- Discussion

This article states the Sahand properties based on land use planning evaluated for future development of this city in patches with appropriate ecological capabilities. The main goal of this study is defining the best direction for city development that has the least short-time and longtime bad effects.

Research method is descriptive and analytical method and data have been collected from library and observational study.

Sahand is a new town in East Azerbaijan which was constructed about two decades ago for controlling the extreme growth of Tabriz and for attracting the extra population of this metropolis. Sahand new town is 20 kilometers far away from Tabriz and it became a town in 2007. It has a population of about 16000 and a population of about 90000 was forecasted for this town at its master plan. The area of allocated lands for this town is about 12650 hectare and it is situated on the hillside of Sahand Mountain.

According to the process of ecological capability assessment in this research, for assessing the ecological capability of each region, we have to identify a lot of natural resources parameters. In order to provide these resources for assessment, they must become to land identification and resource maps. Subsequently, this information will be used as different information layers for assessing. Also, the information and the requirements for this model of ecological capability assessment were arranged according to the criteria of ecologic model (urban, rural and industrial development model).

In the next stage, given the systematic method and also applying software applications such as GIS, data layers were analyzed, integrated and overlaid by AHP technique.

Then, the final map of ecological capability of case study region was produced. This map was produced according to privileging two groups of lands, quiet appropriate and rather appropriate lands. Eventually, the final map of ecological capability of case study region was produced by overlaying the maps of these two kinds of lands with regard to both groups. So, the appropriate land for future development of Sahand new town was determined.

4- Conclusion

By using the above-mentioned assessment criteria and after producing the appropriate lands regarding ecological assessment, the final region for future development was determined with respect to urban planning criteria such as land slope. All future land for development is about 3500 hectares at east and south east of Sahand. This area was decreased to 3200 hectares because of land morphology. Finally, with respect to land morphology and main access to Sahand, four regions are defined for future development.

5- Suggestions

Environment capability evaluation is an important part of urban development management. If an assessment is not carried out, the opportunity to mitigate many of the impacts of a development may be lost or may only be overcome at significant costs to the developer or the community. So, it is important that each development be determined through environment capability evaluation.

For doing better evaluation, it is required that the data for performing site selection analysis be determined by interviewing
experts as well as internal and international literature reviewing.

**Keywords:** Sahand New Town, Physical Development, Sustainable Development, Ecological Capability Evaluation.

**References**


Booth, T. H., 1985, Resource Evaluation in Environmental Planning and Management. CSIRO, Canberra.


Hough, M., (1990), Out of Place Restoring Identity the Regional Landscape, Yale Colledge.


Mostafapour, Ahmad, (2005), Analysis of Realization of New Towns Goals in Iran; Case Study: Pardis New Town, MS Thesis, Supervisor: Dr. H.Shakouei, Faculty of Humanities, Tarbiat Modares University.


Sharestan, Consulting Engineers, (2005), Sahand New Town Detailed Plan and Land
Development Plan Studies, the Ministry of Housing and Urban Development, New Towns of Iran Organization, Sahand New Town Organization.