

## ***Quantity and Quality Assessment of Land Use Marivan City***

**Movahed A. \***

Assistant Prof., Dep. of Geography and Town Planning, Shahid Chamran University

**Samadi M.H.**

M.A. Student in Geography and Town Planning, Shahid Chamran University

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### **Extended Abstract**

#### **Introduction**

Organizing urban land use which is the principal part of urban planning can cause spatial suitability and land use efficiency.

The expansion of the urban activities and presentation of discipline, ethics, law and order and supervision of municipal affairs considering the convolution of economic and social relation of the cities falls under certain fields of specialization. Regarding the increasing growth of population, equal distribution of service over any district of cities is a complicated issue which requires subtle studies in the field of either extant capacities and facilities and future needs-the needs which form the basis urban planning. To have a fair planning, it is important to, first, follow the land use planning which should be accomplished with regard to urban density and Per capita. From among the essential criteria of the distribution of urban planning, the role of climatic social and economic factors, and the compatibility of applications is very important. Besides, gender and age are the most significant criteria for determining the urban functions.

#### **Methodology**

This research which deals with urban land use evaluation of the city of Marivan performed through GIS software in a descriptive-analytical method with practical nature is to examine the amount consistency or the inconsistency of land uses and the problems of spatial arrangement in them.

The aim of the research is the anticipation of the desirable condition delineated in the twenty year social-economical program of Iran and the method of land use distribution and suitability

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\* E-mail: Movahed\_a@scu.ac.ir

Tel: 09166180979

of constituency and inconsistency in the extent of the city.

### **Results and Discussion**

Marivan is a city located on the west of Kurdistan, between 35 and 31 northern and 46 and 12 eastern latitude respectively, about 128608 meters above the sea level.

The structure of Marivan is divided into two districts and 12 quarters. Quarter 4 and northern parts of quarters 5, 6 and 9 belong to the shopping centers and are considered the only center of the town. This trapezoid-shaped center lies between Sarbaz square and Baveh intersection and from Sarbaz square to Baveh Rashid square (Imam Hossein) which is connected to Baveh intersection. Baveh Rashid square is considered the only center of the town. The structure of Marivan can be conceived of two types: systematic for new quarters and unsystematic for old mountain-foot quarters. The arrangement of the latter is as the result of slope and price of the land. This slope is sharper in the northern quarters (1, 2, 7, 8) wherein the population is larger. On the contrary, newly constructed quarters (11, 12) and southern parts of the quarters (5,6,10) are of lesser population because of out-of-area construction and the overheight of the the sold land pieces. In contrast to these two groups of land, the central quarters of town (3,4,9) are of average population.

In the analysis of the matrix of compatibility, a series of factors have been evaluated and finally the aforementioned matrix was completed. The factors are as follows: the concentration of application, their compatibility rate (from a fully compatible spectrum to a fully incompatible one) from the viewpoint of each user's primary and essential needs such as air quality, noise, the amount of light, smell, sight, view, subordinate application size, all applications of the town, and the rate of compatibility of concentrating activities.

The resulting findings of this matrix indicate that the application of higher education, green space, tourism, paved road net, and military and security zones ranges from fully compatible to fully incompatible respectively. In the analysis of suitability of the matrix, the quality and ratio of each application were studied with respect to their urban geographical features. The obtained results were analyzed in a spectrum of fully fair to fully unfair. The outcome of the aforementioned analysis implies position finding, installation of the residential application, higher education and physical education from rather fair to fully unfair that do not correspond to the needs of the town. The analysis of applications in the subordination matrix, residential applications, physical education, official applications, industrial applications and paved road net have been located on the basis of fully defined to partial defined location. Conversely educational application, green space, municipal facilities, religious application, military and security application which range from a full-non subordination to partial-non subordination are evaluated and can be accommodated in a spectrum as successive chain of municipal needs.

### **Conclusion**

The result of the research shows that spatial distribution of urban land use is inconsistent with common standards of the country and inconsistent land uses are the main factor in disarrangement of urban land use in the city of Marivan. The result of the qualitative evaluation

of urban land use in the city according to consistency matrix, higher education, green space, tourism, road network shows a range of absolute constituency to absolute inconsistency. In this matrix moderate consistent to absolute inconsistent alternatives are not suitable for urban needs.

In relativity matrix residential land uses, higher education, sports, administration, industrial and road network are arranged from absolute independence to moderately absolute independence on the contrary, educational, green space, civic utilities, religious, military applications are absolute to moderately absolute.

**Keywords:** *Urban Land use, GIS, Assessment of Quantity and Quality, Marivan.*