The Analysis of Spatial distribution of Parks of District one of Kermanshah city by GIS

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Extended Abstract

Introduction

The population of cities is increased every day; in contrast, green spaces is limited for the sake of tall buildings. Also, man’s soul has always dealt with flower, plants and trees and beneficial effects of green spaces are undeniable for human spirit. so, the importance of green spaces becomes more visible, and urban planners try to provide a pleasant and beautiful surrounding for man’s welfare. Green space is one of the man’s basic needs. Man’s demand for accessing to economical, social and recreational facilities on one hand, and lack of sufficient lands for service, dwelling and industrial centers on the other hand caused urban gardens and trees be destroyed by service and building makers, This process has so broad that nothing has remained from green gardens and planted trees except limited amounts. In addition to shortage of green space there are other problems e.g. luck of correspondence between applied system of green space and spatial construction of city. Also, not having access to these spaces caused the issue of green space become more serious. This study aims to investigate the spatial distribution of parks of district one of Kermanshah city and it tries to analyze the shortages, the way of spatial distribution, the amount of access. This research aims to answer some questions in this regard:

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-Do the current amount of green space in district one of Kermanshah suffice its population?
-Are the parks of this district distributed properly?

For compiling definitions, concepts and theories, library and documentary research has been used and GIS software used for analyzing data.

**Research Methodology**

The location of green space is important. Jane Jacobs, a contemporary critic, believed that parks should be built where there are a large number of people, culture and business activities. Analysis of parks based on the approach, balancing the position of green spaces according to population rate and a public access to these places are among the main purposes of this research.

**Results**

According to the public statistics of people and dwelling in 1385, the population of Kermanshah was 794,863 people from which 77,817 persons live in district one which is the lowest population among all districts. Also, 69 persons per hectare (acres) is determined from the study. The result was compared with the global standard which revealed that the amount of green spaces for each person is so far from the standardized rate. According to the gained statistics, the whole amount of green spaces of Kermanshah is 614 acres from which 84.4 acres is in district one (14 %). With respect to the population of Kermanshah, the amount of green space for one person in district one is 10.84 m which indicates the equipped parks have been limited to 6.35 m. In this study, the amount of access to parks has been considered according to four factors i.e., neighborhood, local, districts and areas and 550 meters was realized for applied process. Analysis was done by GIS and it revealed that 91 % of population is in the circle and 9 % are outside the applied range of parks.

**Conclusion**

The applied range of parks has properly been distributed to some extent. But, the main problem of district one is the amount of green space and due to the population growth and development of apartments the amount of green space is limiting. The shortage of equipments and improper location of parks are big problems. Despite the shortages, many people spend free time in parks which don't have enough space. No service is provided from public or private organizations. The government and municipals are responsible for investment but they try to establish market places and trade centers which lead to playing multiple roles of parks. Also, in planning, less attention is paid to green places. As a result, we can't achieve ideal purposes. We can touch such problems in this area on the basis of investigations and observations of equipped green spaces in this district, no table cases and significant problems are as follows:
*lack of proper access to parks; most of parks have been established beside the main roads or in a marginal place.

*neighborhood with some irrelevant applications; some of parks are near filling – station or army buildings which are not proper in the surroundings of parks.

*shortage of proper furniture and lack of sanitation and recreation facilities.

Finally, some strategies and solutions for expanding and maintaining green spaces:
- offices, companies and individuals should be free from paying taxes for producing green spaces
- appreciating those who have been active in the field of planting green spaces by holding frequent gatherings.
- publishing books and advertising papers about the importance of green spaces and delivery to people freely.
- giving people free flowers and trees for planting and developing green spaces
- planting trees by artists, athletes in urban spaces.
- Using private companies for helping in the process of developing green spaces.

Key Words: Green space, access, District one of Kermanshah city, GIS.

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