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Distribution analysis of urban parks with the approach of space equity (Case study: Bonab city)

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Extended Abstract

Objective: Modern cities, especially in developing countries, need more attention to space justice in the distribution of urban uses and activities, with increasing population and continental urbanization, more than any other period. Inappropriate spatial distribution of applications leads to social injustice; the costs of access to urban services, inappropriate spatial location, neighborhood costs with polluting units and others also cause socio-economic and urban inequality. In the meantime, urban green spaces play an important role in improving the quality of urban life and achieving sustainable urban development by providing a wide range of types of functions. Therefore, the evaluation of green spaces, especially parks, is one of the most important urban development processes for justice-centered planning. The purpose of this study is to analyze the spatial distribution of Bonab city parks with the spatial justice approach..

Methods current research is applied in terms of its purpose, and according to the nature of the subject, the approach to research is descriptive-analytic. Different documentary and field methods have been used to collect information in the documentary method, the theoretical foundations related to the subject matter of the research have been studied and the gathering of the required statistics and information in relation to the present research has been obtained from the comprehensive plan of Bonab city (plan preparation year:2013) and the Statistics Center of Iran (2016) and according to the purpose of this study, the status of the park's situation in the city of Bonab, urban land use and the road network layers for the purpose of spatial analysis has been used. Finally, the field survey method was used to adapt library information to existing facts in the neighborhoods of Bonab city. In the analysis section, to determine the spatial distribution of urban parks in Bonab, and then to measure justice and equity based on accessibility indicators, parks per capita and population density, the network analysis and then the nearest neighbor index and its integration with other spatial analysis of GIS In the study area were used.

Results: According to the existing statistics of 2016, the total area of green space in the city of Bonab was 142423.36 square meters (10.2 hectares). Given the dispersed population in urban neighborhoods, the average per capita equivalent of 1.78 square meters of green space is available per person in the city. The information available from 1395 indicates the fact that in the 13th district of Bonab city, the 11th, 12th and 7th districts respectively have the highest per capita city park, and in contrast to neighborhoods 2, 3, 4, and 9, there are no urban parks. The result of calculating the nearest neighbor of green space usage in Bonab city indicates the cluster distribution of this user at the Bonab city level; This suggests the park's focus is part of the city. The nearest neighbor of its coefficient is 0.750. Similarly, the analysis shows that almost all suburban areas and urban worn-out rubble suffer from significant gaps between access to leisure centers (parks) and public green spaces. More precisely, how access and poverty are access to parks with demographic groups (rural immigrants, low-income social classes, etc.), and the location of low-income populations (poorer and more marginalized) in Bonab City, which can be a policy issue and justice-centered planning. Most of the parks in the city of Bonab have a local scale with a radius of access to such parks of 1000 meters, But in this research, the radius of access and service was defined as three levels for parks: 1) 250 meters (access at 5 minutes); 2) 500 meters (access walking in 10 minutes); and 3) 1000 meters (pedestrian access in 15 minutes). In more than 50% of the city, there is no pedestrian access in less than 15 minutes. From neighborhoods lacking suitable access to the parks, it can be pointed

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out to the "Kooy e Farhangian 2", "Bagherabad" and "Asgarabad" (southwest and northern parts of the city), despite the fact that the city of Bonab has expanded rapidly in recent decades but it is heterogeneous in the distribution of the park**.**

Conclusion: The results indicate the clustering of the spatial distribution of parks which indicates the relatively good distribution of Bonab townships in the central and northeastern regions of the city and inappropriate in other parts of the city. In addition, the distribution of parks is somewhat consistent with demographic density in different parts of the city of Bonab but the spatial distribution of these services in the outlying areas of the city of Bonab is not desirable. What is the result of this research is that space justice has not been respected in the distribution of parks in the city of Bonab.

Keywords: Urban parks, Space equity, Network analysis, Bonab City.

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