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Mapping of Urban Green Spaces Towards a Balanced Planning in a Coastal Landscape

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Abstract: Urban green spaces (UGS) as an important contributor can be a significant part of sustainable development. A spatial method was employed to assess and map the spatial distribution of UGS in five districts in Sousse, Tunisia. Ecological management of UGS is an essential factor for the sustainable development of the city; hence the municipality of Sousse has decided to support the districts according to different green spaces characters. And to implement this policy, (1) a new GIS web application was developed, (2) then the implementation of the various green spaces was carried out, (3) a spatial mapping of UGS using Quantum GIS was realized, and (4) finally a data processing and statistical analysis with RStudio programming language was executed. The intersection of the results of the spatial and statistical analyzes highlighted the presence of an imbalance in terms of the spatial UGS distribution in the study area. The discontinuity between the coast and the city's green spaces was not designed in a spirit of network and connection, hence the lack of a greenway that connects these spaces to the city. Finally, this GIS support will be used to assess and monitor green spaces in the city of Sousse by decision-makers and will contribute to improve the well-being of the local population.

Keywords: distributions, GIS, green space, imbalance, spatial analysis

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