

Integration of geoinformation system into the planning of Bahir Dar blue Nile millennium park, Ethiopia

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Parks and recreational areas are positive elements of the urban space that can provide multiple community values for local residents and tourists. In order to fulfill these community values, well planned parks and recreational areas are seriously lacking. Geographic information systems (GIS) have recently emerged as helpful and effective tools for planning and managing park and recreation facilities and resources. The aim of this study is to describe the biophysical environment, the socio-economic conditions, indicate the appropriate places of the infrastructural services and to develop a spatial database system for the newly established park - the Bahr Dar Blue Nile Millennium Park, in the City of Bahr Dar in Amhara Region. In doing these data of spatial vector and raster as well as the attribute of the major variables land use land cover, bank erosion potential and socioeconomic conditions of the park were collected from QuickBird-2 satellite imagery ASTER DEM and semi-structured questioner. The GIS spatial analysis functions of ArcGIS were used in the analysis of the various datasets. Based on the above mentioned biophysical and socio-economic characteristics, the appropriate places for the planned infrastructures of the park were identified. While doing all these, the prototype GIS-database was established and embedded with a variety of datasets including raster and vector data, and some ancillary data of the socio-economic conditions that are essential for decision making and planning development interventions. Thus, the study has indicated that GIS is a useful technical tool in integrating socioeconomic and environmental data in the process of park planning and management.

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