



Urban environment quality assessment by Boolean approach

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Abstract: Urban environmental quality assessment is a prerequisite of sustainable urban planning. This study employs statistical approach to evaluate the same. It aims to determine the extent of applicability of linear approach, Boolean, for the aggregation of parameters of urban environment. Further, parameters of both environmental pollution and physical environment have been considered for evaluation. Because of the spatial characteristic of environmental phenomenon, the integration of remote sensing and geographic information system has been applied over the area categorized by Bhopal Municipal Corporation. Analytical hierarchy process has been used to find out the weight of each criterion by pair wise comparison matrix. Overlay is carried out by using arithmetic operator to coalesce the criteria maps. Validation of the final quality map has been done through an earlier research work carried out on the same study area. Finally, it tries to explore the extent of suitability of linear approach and suggests the situations where it can be applied.

Keywords: GIS, Remote Sensing, Boolean, Environment, AHP