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EVALUATION AND PLANNING OF URBAN GREEN SPACE NETWORK IN LANDSCAPE PLANNING OF PONNERI, AN EMERGING SMART CITY IN TAMIL NADU

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ABSTRACT

Global human population and urban development are increasing at unprecedented rates and creating tremendous stress on local, regional and global air and water quality. Some of the major functions of the urban green spaces include reducing air pollution, providing shade and habitat for arboreal birds, producing oxygen, providing shelter against winds, recreational and aesthetic qualities. Cities and peri -urban Settlements must be prepared to meet the challenge of unplanned settlement or slum formation. The move towards smart cities promises to bring greater automation, intelligent routing and transportation, better monitoring and better city management. The development of urban green space networks includes creation of new spatial forms, restoration and maintenance of green patches connectivity as well as protection of existing green spaces. Green space network begins to be recognised as a medium of conserving ecosystem and natural environment in urban area. Several methods have been introduced in regards to formulation of modelling urban green space network. This research paper reviews several methods that are used for modelling green space network in urban planning. Recently, remote sensing and GIS are being used to produce a model of urban green space network which positively afford nature conservation in the city. Various methods of modelling urban green space network which include remote sensing, GIS application through land suitability analysis (LSA) and least cost path analysis and gravity model are used to give some understanding on the role of geo-informatics to be used for future planning. The study has given us appropriate way to understand the living spaces in the proposed smart city and identified the probable locations for the green space network.

KEYWORDS: Urban Green Space, Land Suitability Analysis, Remote Sensing, Geo-Informatics, GIS, Smart City