

LAND USE CHANGE DETECTION OF SHIGGAON TOWN – USING SPATIAL TECHNOLOGIES

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Abstract

Land use of towns and cities and creating database using recent technologies has become more significant both as academic discipline and as one of the foundations for practical decision-making in governmental, administrative and commercial firms, and many other organizations both public and private are increasingly aware of real and importance of mapping of the towns or cities towards the solution of their problems. Hence, land use pattern of Shiggaon town has been taken as a piece of research work. Shiggaon is a medium sized town with a population of 27,563 and located at malnad regions of middle Karnataka in Haveri district. The municipality, Public Welfare Department and Land Survey Departments of the town have no proper land record of the town. Hence, there is an urgent need of accurate land use mapping to know the amount of land used for various purposes and to generate information to make further planning. Present research paper aims at mapping Shiggaon town, creating topographical layers for land use and generating database for the town. Global Positioning System (GPS) with higher accuracy, ERDAS Imagine and ArcGIS software are used to create administrative boundaries, land use of the town. Thus, information will be available for administrators, researchers, students and public who are the needy. The roads, drainage, and boundaries of the town have mapped by navigating with GPS, so as to get absolute position of topographical features. The data was downloaded, processed and analysed in computer with the help of ERDAS Imagine and ArcGIS Software. The spatial objects were digitized out of IRS-1D and topomap of Shiggaon town supplied by NRSA and Survey of India respectively. The final map of the town is prepared by overlaying all the layers generated.