

Study of Growth Patterns of the Built-Up Area in Tourism Destinations in Relation to Sustainable Development

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Abstract : The rapid growth of the tourism industry in India in the last few years after the economic crisis in 2009 has been one of the significant causes that led to the Land Use Land Cover change (LULC) of most tourism destinations. The tourist regions are subjected to significant increase in built-up due to increased construction activities for developing accommodation facilities further boosting tourism demand. This research attempts to analyse the changing LULC and the growth pattern of the built-up area within tourist destinations. Four popular tourist destinations, which promises various types of tourism activity and which are significantly dependent on tourism for economic growth, are selected for the study. The study uses remotely sensed data for analysis of land use change through supervised segmentation into five broad classes. Further, the landuse map is reclassified into binary classes to extract the built-up area. The growth patterns of the built-up are analysed in terms of size, shape, direction and form of growth, through a set of spatial metrics. Additionally, a detailed analysis of the existing development pattern corresponding to planned development zones was performed to identify unplanned growth spots in the study regions. The findings of the study provide insights into how tourism has contributed to significant changes in LULC around tourist sites. Also, the study highlights the growth pattern of built-up areas with respect to the type of tourism activity and geographical characteristics. The research attempts to address the need of integrating spatial metrics for the development of sustainable tourism plans as part of the goals of sustainable development.

Keywords : built-up, growth, patterns, tourism, sustainable

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