## Title: Assessing the Spatial Growth Patterns of Tourist Destinations in India at the Risk of Overtourism

## Abstract

The rapid growth of tourism worldwide has brought both economic prosperity and environmental challenges. The emergence of overtourism, characterized by overcrowding and unsustainable development, has raised concerns about the long-term sustainability of tourist destinations. Therefore, the research aims to develop an approach for assessing the overtourism phenomenon and its influence on growth patterns in the tourist regions in India. This research focuses on assessing the spatial growth patterns of popular tourist destinations in India in at the risk of overtourism. By investigating the interplay between tourism, land consumption, and spatial configuration, this study contributes to the understanding of the complex relationship between tourism growth and the sustainable development of the destination.

The research begins by defining the parameters that define overtourism in diverse types of tourist destinations, accounting for factors such as tourist numbers, density, and accommodation facilities. It highlights that overtourism is not solely about visitor numbers but involves a range of associated stressors, impacting tourists' experiences and residents' quality of life. The study then delves into the influence of tourist influx on land consumption rates and land use efficiency, emphasizing the importance of balanced land utilization in ensuring sustainable development.

Furthermore, the research examines the spatial transformation of tourist destinations through patch-based metrics, demonstrating how tourism infrastructure shapes the growth of built-up areas. It uncovers correlations between accommodation distribution and built-up growth, highlighting the role of tourism in influencing the spatial configuration of destinations. The proposed spatial monitoring approach facilitates the assessment of overtourism risks and tourism-led spatial growth, aiding policymakers and planners in making informed decisions to achieve sustainable tourism development.

By identifying and addressing the challenges posed by overtourism, this research contributes to the field of sustainable tourism planning and development. It offers recommendations for land use planning, and community involvement while emphasizing the need for a balanced approach that benefits both residents and tourists. Ultimately, the study underscores the intricate relationship between tourism, spatial growth, and sustainable development, providing valuable insights into the development patterns of various tourist destinations in India.

Keywords: Tourist destinations, Overtourism, Spatial growth Patterns, Land consumption, Land use efficiency, Crowding, Tourist – Resident perceptions, Quality of experience.