Application of Geospatial Technologies for the Promotion of Tourist Industry in Negombo Coastal region

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Abstract

Tourism is a vital contributor to both global economic development and cultural exchange. The integration of innovative technologies, particularly Geographic Information Systems (GIS), has significantly enhanced the planning, management, and promotion of sustainable tourism destinations. GIS enables spatial analysis and improves tourists' ability to understand destinations, plan their travels effectively, and access relevant location-based information. Sri Lanka, a leading tourist destination in South Asia attracts a considerable number of international visitors annually. Sri Lanka's tourism industry is largely supported by its extensive and attractive coastline. According to the Sri Lanka Tourism Development Authority, 62% of tourists cite coastal attractions as their main reason for visiting the country. This study focuses on the Negombo Coastal Tourism Zone, a key coastal destination in Sri Lanka's Western Province. The primary aim is to identify the existing tourism-related service facilities and evaluate their spatial distribution to inform sustainable tourism development strategies. The methodology follows the "Manual for Tourism Destination Management" by the United Nations World Tourism Organization (UNWTO). Data collection was conducted using Google Earth Pro and verified through field observations. The analysis assessed the distribution of tourism resources (e.g.,cultural and recreational attractions), community infrastructure (e.g., drainage, water supply, parking), tourism infrastructure (e.g., accommodation, communication, internet access), and tourism services (e.g., shopping, tour operators, guide and emergency services) using Arc GIS 10.8. Accordingly, the results of the destination analysis conducted identified that there is a clustering of tourism services such as accommodation, food and beverage outlets, rest and picnic areas, recreational facilities, and entertainment within the Negombo coastal tourism zone. The spatial disparities of service distribution can be identified as a major weakness in the region. Further, some of the vital services for tourism such as Money exchange centers, Entertainment, Everyday activities, Shopping Complexes, Rest and Picnic areas have been poorly established in the region. The research findings will be in cooperated to a location-based mobile application tailored to the needs of the tourists to enhance their travel experience within the Negombo region.

Keywords: Coastal tourism, Destination Analysis, GIS, Innovative technologies, Negombo, Sri Lanka, Tourism