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Assessing Tourism's Impact on Climate Change in Puri, Odisha

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ABSTRACT

Puri, a coastal city in Odisha, India, attracts millions of tourists annually, generating significant economic benefits but also imposing substantial environmental pressures. This study investigates the long-term climatic implications of tourism-related activities, focusing on carbon emissions from transportation, energy consumption in accommodations, and the operational dynamics of tourism infrastructure. Using field data collection and geospatial analysis, the research quantifies greenhouse gas emissions associated with tourist transit and accommodation sectors. Stakeholder interviews with policymakers and tourism operators reveal systemic challenges in adopting sustainable practices. The findings underscore that tourism-driven activities are major contributors to Puri's carbon footprint, with transportation accounting for a significant proportion of emissions. Energy-intensive operations in hotels and resorts further amplify resource strain during peak tourist seasons. This analysis highlights the need for low-carbon transport systems, renewable energy adoption, and energy-efficient infrastructure to mitigate tourism's environmental impact. The study provides actionable recommendations for integrating climate resilience into urban planning and tourism policy frameworks, ensuring sustainable development and enhanced climate adaptability for Puri.

Keywords: carbon footprint; climate adaptation; low-carbon tourism; energy efficiency; urban sustainability