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Tourism Compliance and the Rise of Astro-Tourism in Southern Africa's Emerging Space Science Economies

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Abstract

This research explores the juncture of tourism regulation and the emerging industry of astro-tourism within the Southern African sub-continent, with particular emphasis on newly developing space science economies like South Africa and Namibia. This is with the aim of assessing the extent to which regulatory frameworks facilitate or impede the growth of astro-tourism, a specialist niche that aligns scientific interest and sustainable travel practice. Using a qualitative content analysis method, the research examines policy documents, tourism development strategies, and science infrastructure blueprints across the period 2010-2024, to determine the extent of regulatory adherence to sustainable and responsible tourism principles. Interview data conducted with senior officials in tourism authorities and space science institutions supplement the secondary evidence, offering explanations about compliance issues and prospects. Evidence suggests that although astro-tourism offers considerable prospects for regional development and scientific involvement, adherence to tourist regulations is generally patchy, especially for small operators in rural locations. Insufficient coordination between space science organizations and tourist regulatory bodies constrains the scalability and sustainability of such activities. This study highlights the urgency for incorporating policy measures, increased intersectoral coordination, and capacity-building programs specifically designed for astro-tourism operators. This research brings to light a new and poorly regulated tourism frontier, thus adding to the tourism compliance literature and informing the broader debate related to sustainable innovation in African economies. Keywords: astro-tourism, tourism compliance, space science, Southern Africa, sustainable tourism, policy integration.