Harnessing the blue economy in Lakshadweep Islands through a sustainable tourism perspective

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This study delves into the dynamics of sustainable tourism in the Lakshadweep Archipelago, India, situated within the ambit of the blue economy framework. The study is centred around achieving a harmonious balance between economic growth and environmental conservation in the Lakshadweep Islands. It critically evaluates the tourism carrying capacity of the Islands, proposing a sustainable model that accommodates varying capacities, ranging from 12 beds in Chetlat to 434 beds in Kadmat, alongside a boating capacity of 207 in Bitra's lagoon. A pivotal finding of this study is the urgent need for stringent environmental management measures, particularly focusing on the protection of fragile coral reef ecosystems against threats like plastic pollution. The limit of acceptable change is rigorously assessed, with coral reef health and water quality as crucial indicators. This study highlights the importance of implementing sustainable practices as a means to both safeguard the ecological integrity of Lakshadweep's diverse islands and drive economic development. These findings play a crucial role in informing policy-making and guiding the alignment of tourism strategies in Lakshadweep with the overarching goals of environmental sustainability and enhancing community welfare.

Keywords: Blue economy, community welfare, coral reefs, environmental management, sustainable tourism.

such as India's Lakshadweep Islands, where integrating BE principles can significantly contribute to achieving the United Nations Sustainable Development Goals by protecting marine environments and their dependent communities[5].

The Lakshadweep Islands, situated in the Arabian Sea off India's southwest coast, provide a unique opportunity to synergize BE and the tourism sector. These Islands, renowned for their ecological significance and cultural diversity, make the promotion of responsible tourism essential for sustaining local communities. By adopting sustainable practices, the Lakshadweep Islands can preserve their natural and cultural heritage for future generations, thereby contributing to economic growth and aligning with the global sustainable tourism trends[6].

However, these Islands face unique challenges, including limited land availability, vulnerability to climate change and finite resources. These challenges necessitate the establishment of a sustainable BE for the enduring welfare of island communities. The interplay between BE and tourism is particularly notable in small oceanic islands, where both sectors aim to harness ocean and coastal resources for economic development through sustainable practices. Recreational tourism, being a primary income source in these Islands, stands to benefit significantly from adherence to BE principles[7]. The effective integration of these principles in management and development strategies is vital for addressing the Islands' specific needs, contributing to sustain-