

Exploring Sustainable Ecotourism Potential in Great Nicobar Island

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Abstract: *The Great Nicobar Island, situated at the southernmost tip of the Andaman and Nicobar archipelago, is a region of immense ecological significance. Home to diverse flora and fauna, including several endemic and endangered species, the island presents immense potential for ecotourism development. This study explores the feasibility and challenges of promoting sustainable ecotourism in the Great Nicobar Island, drawing insights from a comprehensive literature review and analysis of relevant policy documents. The findings highlight the need for a carefully planned approach that balances environmental conservation, community engagement, and economic development. Key recommendations include strengthening infrastructure, promoting environmental education, and empowering local communities to participate in ecotourism initiatives. The study underscores the importance of sustainable tourism as a means to conserve the island's natural resources while generating livelihood opportunities for the indigenous populations.*

Keywords: Biodiversity, Community involvement, Ecotourism, Great Nicobar, Sustainability

1. Introduction

The Great Nicobar Island, with its pristine natural landscapes, diverse ecosystems, and indigenous tribal communities, holds immense potential for the development of ecotourism. Spanning an area of 910.074 sq. km, the island is home to two national parks, a biosphere reserve, and a rich assemblage of endemic and endangered species, including the Crab-eating Macaque, Nicobar Tree Shrew, Nicobar Megapode, Serpent Eagle, Salt Water Crocodile, Marine Turtles, and Reticulated Python.

In recent years, the Andaman and Nicobar Islands have witnessed a steady increase in tourist arrivals, with Great Nicobar emerging as a potential ecotourism destination. However, the development of mass tourism has raised concerns about the environmental and social impacts on the fragile island ecosystem. There is a pressing need to explore sustainable tourism models that can balance economic development with environmental conservation and the well-

being of local communities. (Boley & Green, 2016; Indwar & Muthukumar, 2024)

This study aims to examine the potential of ecotourism in the Great Nicobar Island, analyzing the challenges and opportunities for its successful implementation. The findings can inform policymakers and stakeholders in developing a comprehensive strategy for the island's sustainable development and conservation.

Study Area

The Great Nicobar Island is the southernmost and largest island in the Andaman and Nicobar archipelago, located at the junction of the Bay of Bengal and the Andaman Sea. The island is characterized by its diverse ecosystems, including tropical rainforests, mangrove forests, coastal habitats, and coral reefs. It is home to two national parks, the Galathea National Park and the Campbell Bay National Park, as well as the Great Nicobar Biosphere Reserve, which was established in 1989 to protect the island's rich biodiversity.



Source: Great Nicobar Island

Volume 14 Issue 2, February 2025

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

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The island is inhabited by two indigenous tribal communities, the Shompen and the Nicobarese, who have a deep-rooted connection with the land and its natural resources. Their traditional knowledge and sustainable practices have played a crucial role in preserving the island's ecological balance. (Ias, n.d.; Marine Debris in Great Nicobar, 2002)

2. Methodology

This study employs a comprehensive literature review and analysis of relevant policy documents to explore the potential of ecotourism in the Great Nicobar Island. The review includes academic literature, government reports, and case studies from similar island ecosystems, with a focus on the following aspects:

- 1) Ecological significance and biodiversity of the Great Nicobar Island
- 2) Existing and potential ecotourism attractions and activities
- 3) Challenges and constraints in developing sustainable ecotourism
- 4) Best practices and strategies for ecotourism development
- 5) Involvement and empowerment of local communities

The analysis of policy documents, such as the Andaman and Nicobar Islands Integrated Development Corporation's (ANIIDCO) tourism development plans and the Great Nicobar Island Master Plan, provides insights into the current state of tourism development and the government's vision for the island's future.

3. Results and Discussion

Ecological Significance and Biodiversity

The Great Nicobar Island is a biodiversity hotspot, home to a diverse array of flora and fauna. Its tropical rainforests, mangrove ecosystems, and coastal habitats support a rich assemblage of endemic and endangered species, many of which are found nowhere else on Earth. The island's unique geological history and isolation have contributed to the evolution of these unique species, making it a priority for conservation efforts. The Galathea National Park and the Campbell Bay National Park, along with the Great Nicobar Biosphere Reserve, protect the island's most ecologically sensitive areas, providing refuge for endangered species such as the Nicobar Megapode, Nicobar Sparrowhawk, and leatherbacks turtle. These protected areas are crucial for maintaining the island's ecological balance and offer immense potential for ecotourism development.

Existing and Potential Ecotourism Attractions

The Great Nicobar Island boasts a range of natural attractions that cater to ecotourism, including pristine beaches, coral reefs, mangrove forests, and hiking trails through the tropical rainforests. Opportunities for nature-based activities, such as birdwatching, snorkeling, and guided wildlife safaris, can attract eco-conscious travelers and contribute to the island's sustainable development.

- 1) **Indira Point:** India Point, the southernmost tip of Great Nicobar Island, offers incredible potential as a distinctive tourism destination, given its unique geographical location and striking natural beauty. Tourists here can experience the remote splendor of India's southern tip,

surrounded by dramatic coastal cliffs and expansive ocean views—ideal for both adventure tourism and low-impact sightseeing. Positioned at 6°45'N, just north of the equator, this landmark is India's southernmost point and is often compared to Cape Comorin (Kanyakumari) on the mainland. From a tourism perspective, India Point stands out as a prime eco-tourism destination, especially for visitors drawn to untouched landscapes and diverse ecosystems. Its appeal lies in its isolation and pristine environment, making it a promising location for eco-tourism and adventure activities like Beach Sports and rainforest trekking. Carefully developing eco-friendly facilities could support nature enthusiasts while preserving local ecosystems. Such tourism growth could enhance local employment and infrastructure if balanced with sustainable practices.

- 2) **Biosphere Reserve:** The Great Nicobar Biosphere Reserve is a UNESCO-recognized area known for its diverse ecosystem. It's home to rare and endangered species like the Nicobar megapode, a ground-dwelling bird, and the giant leatherback sea turtle, which nests on its beaches. Tourists can be immersed in the conservation efforts of the region, engaging in guided nature walks and bird-watching tours that showcase this biodiverse haven. (Lecturer, 2017)
- 3) **Unique Flora and Fauna:** The Great Nicobar Island is home to one of India's most pristine and ecologically rich national parks, Campbell Bay National Park. Alongside Galathea National Park, it forms the Great Nicobar Biosphere Reserve, which protects the island's extraordinary biodiversity and provides a unique yet challenging tourism experience. The national parks in Great Nicobar are renowned for their diverse flora and fauna. The dense, tropical rainforests host a wealth of plant species, many of which are endemic. For wildlife enthusiasts, the parks offer sightings of unique species such as the Nicobar megapode, saltwater crocodile, Nicobar tree shrew, and the crab-eating macaque. Birdwatchers can spot rare species like the Nicobar pigeon and Edwards' pheasant. The national parks in Great Nicobar present a unique tourism opportunity that combines natural beauty, wildlife, adventure, and a glimpse into the lives of indigenous communities. Given the ecological sensitivity of the region, any expansion in tourism will need to focus on sustainability and low-impact tourism models to protect the island's natural and cultural wealth for future generations. (Chandra, n.d.; Marine Debris in Great Nicobar, 2002)
- 4) **Pristine Beaches and Marine Life:** The island's coastal regions are famous for their untouched beaches and vibrant coral reefs. Locations like B-Quarry beach, Chigen, Kala Pahard, johinder nagar beach, Magarnalla beach and Laxman beach, Campbell Bay and Galathea Bay offer excellent spots for eco-friendly water sports, including snorkeling, scuba diving, and kayaking, where travelers can explore coral ecosystems and tropical fish species. Coral reef conservation initiatives could be incorporated, allowing tourists to learn about the importance of marine biodiversity.
- 5) **Cultural Immersion with Indigenous Tribes:** Great Nicobar is home to the Shompen and Nicobarese tribes, who possess unique traditions and lifestyles. By promoting responsible and respectful cultural tourism,

visitors could have the opportunity to engage with indigenous communities learn about their traditional practices, and support local crafts and cultural practices. This approach would create income opportunities while preserving tribal heritage and promoting sustainable development.

- 6) **Conservation-Centered Development:** The island can serve as a model for conservation-centered tourism, where visitor activities support ecological preservation. Setting up eco-lodges or low-impact accommodations could offer visitors an immersive experience while minimizing environmental damage. Introducing eco-friendly travel practices, such as nature-guided tours, controlled visitor caps, and educational programs, would highlight conservation efforts and foster environmental awareness among tourists. (Indwar & Muthukumar, n.d.)
- 7) **Adventure and Wellness Tourism:** The secluded beaches, hiking trails, and unspoiled environment offer ample opportunities for trekking, bird watching, and wellness tourism. Yoga retreats, meditation programs, and wellness workshops in natural settings could attract travelers seeking relaxation and rejuvenation in a tranquil environment.
- 8) **Community-Based Ecotourism:** Developing a community-led ecotourism model could greatly benefit the local population. Involving local communities in eco-friendly lodging, guided tours, and craft sales would create sustainable livelihoods for residents while enabling tourists to have a more authentic experience.

4. Challenges and Constraints

Developing ecotourism in the Great Nicobar Island faces several challenges, including limited infrastructure, poor connectivity, and the need to balance conservation with economic development. The island's remote location and lack of reliable transportation options make it difficult for tourists to access. Additionally, the fragile ecosystem and the presence of protected areas require careful planning and management to minimize the impact of tourism activities.

The involvement and empowerment of local communities is also crucial, as they have a deep-rooted connection with the land and its resources. Ensuring their participation in the decision-making process and equitable distribution of benefits from ecotourism is essential for the long-term sustainability of the initiatives.

Strategies for Sustainable Ecotourism Development

To unlock the potential of ecotourism in the Great Nicobar Island, a comprehensive and collaborative approach is needed. Key strategies include:

- **Improving infrastructure and connectivity:** Upgrading transportation options, developing eco-friendly accommodation, and enhancing access to the island while minimizing environmental impact.
- **Promoting environmental education and awareness:** Educating tourists and local communities about the island's ecology, biodiversity, and the importance of sustainable practices.
- **Empowering local communities:** Involving indigenous tribes in the planning and management of ecotourism

initiatives, and ensuring they benefit from the economic opportunities.

- **Strengthening conservation efforts:** Enhancing the management of protected areas, implementing sustainable tourism guidelines, and monitoring the environmental impact of ecotourism activities.
- **Fostering public-private partnerships:** Collaborating with the government, non-governmental organizations, and private sector stakeholders to develop and implement ecotourism projects.

5. Conclusion

The Great Nicobar Island, with its exceptional biodiversity and cultural heritage, holds immense potential for the development of sustainable ecotourism. By carefully balancing environmental conservation, community engagement, and economic development, the island can emerge as a model for ecotourism that showcases the harmonious coexistence of nature and human activities. The implementation of strategic interventions, such as improving infrastructure, promoting environmental education, and empowering local communities, can pave the way for the island's sustainable future. As a biodiversity hotspot and a refuge for endangered species, the Great Nicobar Island deserves a well-planned and collaborative approach to ecotourism that ensures the preservation of its unique natural and cultural resources for generations to come.

References

- [1] Boley, B. B., & Green, G. T. (2016). Ecotourism and natural resource conservation: The potential for a sustainable symbiotic relationship. *Journal of Ecotourism*, 15(1), 36–50. <https://doi.org/10.1080/14724049.2015.1094080>
- [2] Chandra, K. (n.d.). *Scarabaeid Fauna of Great Nicobar biosphere reserve*. <https://www.researchgate.net/publication/323725988>
- [3] Ias, D. (n.d.). *NITI Aayog's Project for Great Nicobar Island Why in News*. <https://www.drishtias.com/printpdf/niti-aayog-s-project-for-great-nicobar-island>
- [4] Indwar, T., & Muthukumar, P. K. (n.d.). ROLE OF ECOTOURISM IN SUSTAINABLE DEVELOPMENT: AN OVERVIEW. *Journal of Pharmaceutical Negative Results*, 14. <https://doi.org/10.47750/pnr.2023.14.02.205>
- [5] Indwar, T., & Muthukumar, P. K. (2024). TOURISM IN SOUTH ANDAMAN: OPPORTUNITIES, IMPACTS AND FUTURE POTENTIAL IN INDIA. In *Article in International Education and Research Journal*. <https://www.researchgate.net/publication/384246925>
- [6] Lecturer, G. (2017). A Study about the opportunity of Sustainable Tourism-A Step for Eco-Tourism development with reference to Andaman and Nicobar Islands Tourism Industry Utpal Gain Koyel Sutar. In *Print) International Research Journal of Management Science & Technology*. <http://www.irjms.com>
- [7] *Marine debris in Great Nicobar*. (2002). <https://www.researchgate.net/publication/259985648>