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RESPONSIBLE TOURISM IN SHAHEED DWEEP: A LOCAL COMMUNITY-PERSPECTIVE ON SOCIO-ECONOMIC DEVELOPMENT AND CLIMATE CHANGE IMPACTS

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ABSTRACT

Tourism serves as a significant economic driver for the Andaman and Nicobar Islands, particularly for emerging destinations like Shaheed Dweep (Neil Island). However, its rapid and often unregulated expansion has raised critical concerns regarding environmental sustainability, cultural integrity, and the long-term well-being of local communities. This study evaluates the current stage of tourism development in Shaheed Dweep using Doxey's Irritation Index, while also examining residents' perceptions and attitudes towards tourism growth. Adopting a mixed-methods approach, the research integrates household surveys, field observations, and stakeholder interviews to provide a comprehensive understanding of the local context. The findings indicate that Shaheed Dweep is presently in the "Apathy" stage, where tourism is largely perceived as an economic opportunity, yet accompanied by a gradual decline in community engagement and enthusiasm. While income generation and employment opportunities have increased, concerns are emerging over cultural dilution, commercialization of traditions, and shifts in local lifestyles. The study further identifies key challenges such as land conversion for tourism infrastructure, declining agricultural activities, vehicular congestion, deforestation, and pressure on natural resources, all of which pose risks to responsible tourism and climate change. In response, the paper proposes strategic interventions including the promotion of agro-tourism, implementation of stricter land-use and traffic regulations, strengthening of community participation in tourism planning, and adoption of sustainable practices such as waste management and resource conservation. These measures aim to ensure a balanced approach that safeguards the island's ecological and cultural heritage while sustaining economic benefits, thereby positioning Shaheed Dweep as a model for responsible and community-centric tourism development.

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INTRODUCTION

The tourism industry is a globally recognised sector, contributing significantly to revenue generation and international networking. While tourism serves as a vital revenue source for many regions, its rapid expansion presents several challenges, such as environmental protection, cultural and heritage preservation and climate change (Thomas *et al.*, 2014; Rizal and Asokan *et al.*, 2014; Sharma and Rao *et al.*, 2018). To address these concerns while ensuring tourism sustainability and maintaining the credibility of host communities, policymakers have introduced various sustainable tourism models, including community-based tourism, sustainable tourism, eco-tourism, cultural tourism, and responsible tourism. These models aim to strike a balance between economic benefits and the preservation of local ecosystems, heritage, climate and community well-being. In its early stages of tourism development, local communities have played a fundamental role in shaping the industry. Their active participation is essential for sustainable growth, as residents are the primary stakeholders who directly experience both the benefits and challenges

of tourism. Their support is a key factor in successful tourism development. The involvement of communities is essential in the implementation of responsible tourism practices and shaping the industry's progress, as residents' attitudes can directly influence its development. Therefore, fostering their involvement in decision-making processes is crucial to achieving responsible tourism. Responsible tourism emphasises minimising the adverse effects of tourism while maximising its benefits for host communities and the environment. It advocates for ethical tourism practices that prioritize local engagement, enhance working conditions, protect cultural heritage, and promote ecological sustainability. According to David Leslie's work on responsible tourism concepts and practices, this approach seeks to create a more equitable and sustainable tourism landscape by fostering cooperation among stakeholders, including local governments, businesses, and residents. Responsible tourism focuses on the impact of tourism on people, the environment, and communities, striving to minimise negative effects while maximising benefits. It aims to support host communities, enhance working conditions, engage the local population, preserve cultural heritage,

and promote environmental sustainability (Leslie *et al.*, 2012). Shaheed Dweep (formerly known as Neil Island), an emerging tourist destination in the Andaman and Nicobar Islands, presents a unique case for examining responsible tourism practices. As tourism grows in this ecologically sensitive region, understanding the key drivers of growth and the perspectives of local communities becomes imperative. Exploring how tourism development aligns with responsible tourism principles can provide insights into fostering a sustainable and community-driven tourism model that benefits both visitors and residents alike. This study aims to assess the factors influencing tourism growth in Shaheed Dweep and analyse the role of local communities in shaping responsible tourism practices, ensuring long-term sustainability, cultural preservation and climate resilient practices.

Andaman & Nicobar Islands

The Andaman and Nicobar Islands, one of the seven Union Territories of India, are situated to the east of the Indian mainland at the confluence of the Andaman Sea and the Bay of Bengal. The archipelago comprises approximately 836 islands, covering a total land area of 8,249 square kilometres, with an estimated population of 4,34,192 (A & N Administration, 2025). The territory is divided into two major island groups: the Andaman group, consisting of approximately 550 islands, of which only 28 are inhabited, and the Nicobar group, which includes 22 principal islands, with 10 inhabited. These two groups are separated by the Ten Degree Channel, a 150-kilometer-wide maritime divide. Administratively, this UT is divided into three revenue districts. The capital and principal entry point, Sri VijayaPuram (formerly Port Blair), is situated in South Andaman and falls under the jurisdiction of the South Andaman District. The North & Middle Andaman District, with Mayabunder as its administrative headquarters, is separated from South Andaman by a creek. The Nicobar group is governed under the Nicobar District, with Car Nicobar serving as its administrative center. The Andaman and Nicobar Islands hold historical significance, particularly in the context of India's struggle for independence. Prominent landmarks include the Cellular Jail, NetajiSubhas Chandra Bose Island (formerly Ross Island), Viper Island, Hopetown, and Mount Harriet. Additionally, the islands are rich in biodiversity, encompassing 96 Wildlife Sanctuaries, nine National Parks, and one Biosphere Reserve. Due to their strategic location, the islands receive rainfall from both the southwest and northeast monsoons, contributing to their lush natural environment and ecological diversity (A & N Tourism, 2025). Two major Island destinations of the A&N Islands are SwarajDweep and ShaheedDweep under the jurisdiction of the South Andaman District.

Shaheed Dweep (Neil Island)

Shaheed Dweep, is a prominent island within the Andaman and Nicobar archipelago, located approximately 37 kilometres northeast of Sri Vijaya Puram, the capital of the A&N Islands (Figure 1). The Island holds a population of 3040, comprising 1624 males and 1416 females according to the Data Web on Island Environment and Protection (DWIEP). Covering an area of 18.90 square kilometres, with a shoreline extending 18.6 kilometers, the island features low-lying foothills, while its central and western regions are primarily used for agriculture. Due to its significant contribution to vegetable cultivation and supply to neighbouring islands, ShaheedDweep is often referred to as the "vegetable bowl" of the Andaman. The island has also emerged as a popular destination for eco-tourism, with the optimal visiting period extending from mid-November onwards. The eastern part of the Island is densely covered with rainforests, contributing to its rich ecological diversity. Its landscape includes coral reefs, tropical forests, mangrove ecosystems, and white sandy beaches, supporting a wide range of flora and fauna. The Island's major attractions include its picturesque beaches, which are named after characters from the Ramayana—Bharatpur, Laxmanpur I, Laxmanpur II, and Sitapur (Figure 2). Among these, Laxmanpur II Beach is particularly notable for its natural rock formation, commonly referred to as Howrah Bridge (Bera *et al.*, 2015).

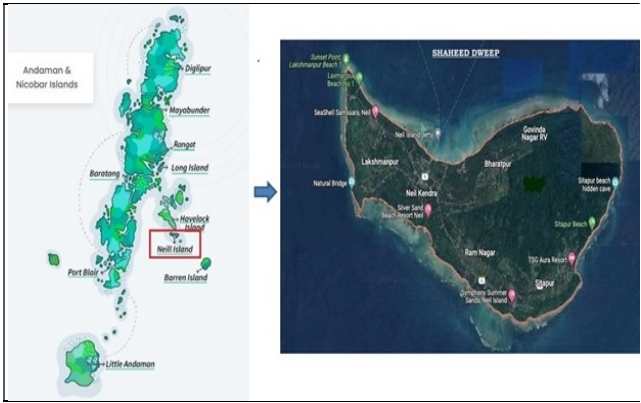


Figure 1. Study area location: Schematic of Andaman and Nicobar Islands (Left) and ShaheedDweep Island- Neil Island (Right). Source - Map credit: <https://dweepbhoomi.andaman.gov.in/> (Left) and <https://nicobartimes.com/> (Right)



Figure 2. Beaches of ShaheedDweep Island (Photo Credit: Vivek R, First author; captured on 19th & 20th April, 2025

Tourism in the Andaman and Nicobar Islands has witnessed a strong and steady rise over the past four years (Table 1). In 2021, the Islands recorded 54,529 tourist arrivals, which increased significantly to 1,36,190 in 2022. This upward trend continued in 2023, with total arrivals reaching 3,32,644, marking nearly a 2.5-fold increase over the previous year. The momentum carried into 2024, with tourist arrivals nearly doubling to an impressive 7,21,894. This trend can be seen in Figure 3. Furthermore, based on insights shared by the Andaman Association of Tour Operators (AATO), it has been learned that 4 out of every 10 tour packages offered include ShaheedDweep in their itinerary. This indicates that approximately 40% of tourists visiting the Andaman Islands also choose to explore ShaheedDweep, reflecting its growing popularity as a key destination within the archipelago.

Table 1. Tourist arrivals in Andaman & Nicobar Islands (2021-2024)

Tourists	2021	2022	2023	2024
Domestic	126238	235061	323619	710397
Foreign	1690	4461	9025	11497
Total	127928	239522	332644	721894

Source: Directorate Of Information, Publicity and Tourism (IP&T), A&N Islands

Several theories have been developed to understand the attitude of the local community towards tourism, one among them is Doxey's irritation Index. It is also known as the Irridex Theory, introduced by George Doxey (1975) as a framework illustrating how local communities' attitudes toward tourism evolve. This theory outlines

four progressive stages: euphoria, apathy, irritation, and antagonism, each reflecting shifts in residents' perceptions as tourism impacts their community.

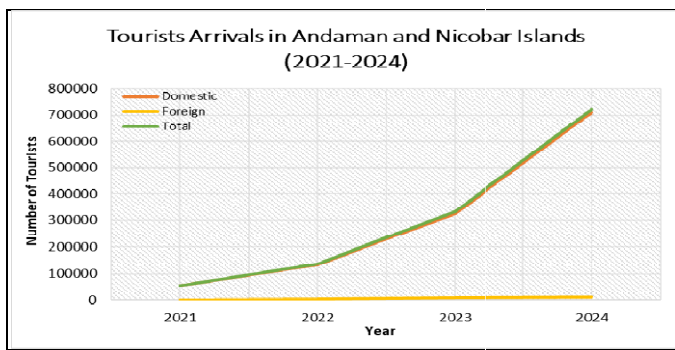


Figure 3. Trend of Tourism arrival in A & N (2021-2024)

LITERATURE REVIEW

The study by Mohd Hafiz Hanafiah *et al.* (2016) investigated the Langkawi Island communities' (Malaysia) perceptions of responsible tourism practices (RTP) and their impact on quality of life (QoL). Using Baron and Kenny's four-step analysis, the study found that RTP fully mediates the relationship between tourism development and residents' QoL. This finding indicates that the relation between tourism development and QoL is considerably strengthened when responsible practices are implemented. The research underscores the importance of local community support in successful tourism development and proactive implementation of RTP policies, encompassing responsible destination planning, to enhance the well-being of host communities.

Deka and Bauruah (2021) studied host community perceptions of tourism development in ShaheedDweep, A&N Islands, using a survey and exploratory factor analysis to assess perceptions across 19 items related to economic, social, and environmental impacts. The study revealed both positive and negative impacts; the benefits included increased employment, improved living standards, and cultural pride, while concerns involved part-time jobs due to seasonality, immigration, rising costs, and environmental degradation. The authors stressed the need for policy interventions to ensure sustainable, year-round tourism that benefits the local community.

Kumar and Srivastav (2018) have highlighted the Andaman and Nicobar Islands' strategic significance, rich historical context, and ecological sensitivity, positioning them as an emerging hub for sustainable tourism. This study acknowledges tourism's potential for economic growth, employment, and infrastructure development, especially given limited industrial prospects. However, this work also warns against unregulated tourism due to its adverse impact on local culture, environment, and community well-being. Key concerns include rising costs, infrastructure gaps, cultural erosion, and increased criminal activities. The role of government policies, sustainable practices, and stakeholder collaboration is emphasized in ensuring balanced tourism development.

López-Guzmán *et al.* (2011) conducted a case study in Santiago, Cape Verde, to examine the impact of community-based tourism on local socio-economic development. Tourists reported high satisfaction with hospitality, beaches, and food but suggested improvements in information services, signage, and shopping. Local SMEs, particularly restaurants and accommodations, were popular, though tour guides and sports activities saw less use. Structural issues such as inadequate staff training, limited ICT use, and poor financial support. Restaurants and accommodations show the highest growth potential, aligning with tourist feedback on key areas for development. The authors emphasize the need for coordinated support from local

governments, NGOs, and academic institutions to enhance training, infrastructure, and digital outreach for sustainable, community-driven tourism development.

Rozilaini and Mohamed *et al.* (2010) explored the impacts of volunteer and recreational tourism on host community attitudes in PulauPerhentian, Malaysia. Volunteer tourism, often NGO-supported, blends service with travel and offers conservation and cultural benefits. However, concerns about regulation, sustainability, and overlap with recreational tourism persist. Using Doxey'sIrridex, the study maps community attitude shifts from euphoria to antagonism. In this framework, it has been assessed that though tourism can foster local development and engagement, unchecked growth may lead to resentment and social strain.

A study by Vu *et al.* (2015) studies the theoretical foundations of responsible tourism, emphasizing its alignment with sustainable tourism goals. The key definitions from the Cape Town Declaration (2002), UNWTO's Global Code of Ethics (1999), and the EU Toolkit (2013) highlight its focus on environmental integrity, social justice, and local economic benefits. However, the study critiques the lack of direct benefits for tourism professionals and businesses. It also addresses ongoing debates about trade-offs between economic gains and socio-environmental impacts. While some scholars argue sustainability can hinder growth, others suggest it doesn't compromise economic competitiveness.

Hanafiah *et al.* (2016) explored the "Responsible tourism practices and quality of life: Perspective of Langkawi Island communities". The study revealed that local communities are integral to tourism development, serving not only as facilitators of services but also by fostering a welcoming environment for visitors. Their active involvement ensures sustainable growth by identifying local resources and addressing potential challenges. Support for tourism is stronger when residents perceive more benefits than costs, as explained in Social Exchange Theory by George Homans. However, the relationship between tourism growth and community attitudes is not always linear; initial enthusiasm may wane as perceived negative impacts rise, though communities with stronger economic bases tend to retain a more favorable view of tourism than those heavily dependent on it.

Bakar *et al.* (2019) highlight that host community attitudes are central to sustainable tourism development, particularly in small island destinations such as those in the Caribbean. Their study examined the perceptions and attitudes of residents in an emerging tourist destination, namely the nation of St. Kitts and Nevis. The findings indicate that residents tend to support tourism development when perceived economic benefits outweigh associated social and environmental costs. Evidence from the Caribbean context shows strong recognition of tourism's contribution to employment generation and infrastructure development, alongside concerns related to cultural change, environmental degradation, and economic leakage. Furthermore, resident perceptions were found to vary across demographic factors, including gender and the degree of economic dependence on tourism. Overall, the study underscores the importance of community participation and the adoption of balanced, sustainability-oriented tourism planning approaches.

Brako & Sebastian *et al.* (2021) reveal that domestic tourism in India is thriving, especially due to cultural and religious travel. However, international tourism faces challenges like health concerns, safety issues, poor infrastructure, ICT limitations, transportation barriers, and a lack of English signage. Government funding for global tourism promotion is insufficient. Respondents stressed the importance of promoting India's traditional arts and crafts internationally. Enhancing global tourism is seen as a driver for economic growth, foreign exchange earnings, and employment generation. Statistical analysis confirmed a positive link between India's tourism potential and economic growth. Key focus areas for development include infrastructure, tourism products, human resources, security, and market expansion.

OBJECTIVES

This paper aims to explore the aspects of Responsible Tourism, with a primary focus on community well-being and tourism growth. This study attempts to analyse tourism sustainability without compromising mankind's future. The following are three objectives of the paper:

- 1) To study the role of tourism in the socio-economic development of the local community in Shaheed Dweep.
- 2) To study the prevailing stage of community sentiment toward tourism in Shaheed Dweep.
- 3) To identify the factors affecting the responsible tourism practices with a focus on climate change in Shaheed Dweep.

MATERIALS AND METHODS

This study adopted the methodology of Doxey (1975), one of the first frameworks for assessing the social impacts of tourism. The framework outlines four progressive stages of resident sentiment: Euphoria, Apathy, Annoyance, and Antagonism, as illustrated below.

Stage 1: Euphoria – Residents enthusiastically welcome tourists, appreciating the economic opportunities tourism brings.

Stage 2: Apathy – As tourist numbers grow, the excitement fades, and the locals become increasingly indifferent to their presence.

Stage 3: Irritation – Frustration arises due to overcrowding, rising costs, increased crime, and disregard for cultural norms.

Stage 4: Antagonism – Hostility emerges as residents blame tourism for community problems, leading to demands for restrictions and stricter regulations.

This study further adopts a mixed-methods approach, integrating both quantitative and qualitative methods to examine the expansion of tourism and community sentiment towards tourism in Shaheed Dweep. A descriptive and analytical research design, Doxey's Irritation Index (Irridex), is employed to classify the local community's attitude toward tourism. In accordance with the important findings from secondary literature available in the domain and the interviews conducted with the tourism industry players, the paper provides recommendations for future tourism academic and business research.

Data Collection Method: Data collection is a vital aspect of research, ensuring the accuracy and reliability of findings. This study incorporates both primary and secondary data, which have been collected, analysed, and integrated into the research. Primary data was gathered through questionnaires, surveys, and interviews, targeting a sample group that included farmers, fishermen, and government officials. Additionally, field visits were conducted to observe visible changes and engage with village elders for firsthand insights. Secondary data was obtained from existing sources to provide background information and supplementary insights. These sources include the A&N Administration website, A&N Tourism website, Census data, journals, books, and other relevant publications.

RESULTS

To evaluate the stage of tourism development responsibly in Shaheed Dweep using Doxey's Irritation Index, a structured questionnaire survey was conducted among 76 local households, encompassing a total of 368 individuals. Each household consisted of an average of 4 to 5 members. The families represented diverse occupational backgrounds, primarily engaged in farming, fishing, private work, and retail shops. Importantly, 80% of surveyed households had at least one member directly involved in the tourism sector. Among the 368 individuals who participated in the study, the largest age group was those aged 36–50 years, accounting for 42% of the sample (n=154), followed by respondents aged 20–35 years, representing 32% (n=117). The remaining 26% (n=97) belonged to the 51–65 years category. In terms of gender distribution, male

respondents formed the majority, representing 57% (n=208), while female respondents accounted for 43% (n=160). Across all age brackets, the highest representation was observed in the 36–50 age group, as the individuals in this age range are typically the primary earners and key decision-makers within their family. Overall, the demographic data suggest a diverse respondent profile, with greater participation from middle-aged individuals and a higher proportion of male respondents.

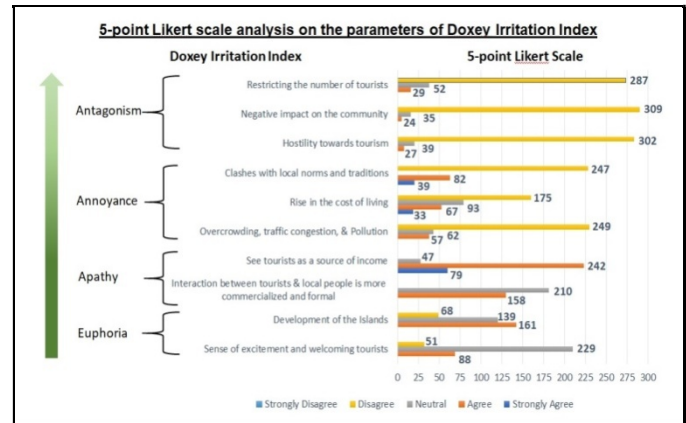


Figure 4. Analysis of Doxey's Irritation Index using a 5-point Likert scale

Analysis of various stages of Doxey's Irritation Index using a 5-point Likert scale based on the data obtained from the survey.

Euphoria

Analysis - The strong agreement with "Development of the Islands" highlights a clear recognition of tourism's economic benefits. In contrast, the high neutrality and comparatively lower agreement on the "Sense of excitement" suggest that the initial fervour has considerably faded. This implies that the community likely experienced the Euphoria Phase in the early days, which is now transitioning out of it.

Apathy

Analysis - Respondents strongly agree that interactions with tourists have become commercialised, and tourists are now viewed primarily as sources of income. Enthusiasm has transformed into a more business-like approach, with interactions driven by obligation or economic necessity rather than genuine interest. These are classic signs that Shaheed Dweep is firmly in the Apathy stage, where the support for tourism persists mainly for its economic benefits.

Annoyance

Analysis - A majority either disagreed or remained neutral about negative impacts (congestion, pollution, cultural interference, and changes in the cost of living). Though some irritations are evident, they are not yet perceived as a major problem. However, the inconveniences experienced by a smaller segment of the population, if not controlled over time, could eventually lead to the emergence of the Annoyance phase.

Antagonism

Analysis - The community has not expressed any strong call for restricting tourism in any visible form. The number of respondents in agreement is minimal compared to those in disagreement, clearly indicating the absence of antagonism at this stage. Thus, based on the survey data collected at Shaheed Dweep, it can be confidently concluded that tourism in the area is currently in the Apathy stage of Doxey's Irritation Index.

DISCUSSION

During the field visit, one-on-one interactions were conducted with local residents. The survey findings and observation revealed that the responses from the majority of the participants clearly indicated that Shaheed Dweep is currently in the Apathy stage of Doxey's Irritation Index. However, a few respondents highlighted very specific concerns, which, though minimal in scale and impact at present, are undermining the principles of Responsible Tourism. If not addressed proactively, these issues have the potential to escalate the current stage to Annoyance. The concerns highlighted by the local community are detailed below.

Cultural Exploitation: For the local communities residing in small Islands, beaches are social and cultural gathering places where families, including children and elders, spend quality time together. The presence of tourists dressed in revealing swimwear or attire on beaches is considered inappropriate by local cultural standards, which is a form of cultural exploitation. Due to this cultural insensitivity demonstrated through improper dressing, many residents of Shaheed Dweep avoid going to the beach altogether, especially with young children, in an effort to shield them from exposure to behaviours or images that conflict with the community's moral and cultural values.

Marine Life Degradation: The water sports activities in ShaheedDweep, such as scuba diving, snorkelling, jet skiing, and boating, may negatively affect marine ecosystems if not properly regulated. It was observed that the fuel-powered boats and water sports equipment release oil residues in the water, and may contribute to water pollution and greenhouse gas emissions, causing damage to coral reefs and seagrass beds. Additionally, it has also been observed that the growing demand for seafood in the Island has led to overfishing, as hotels and restaurants require a continuous supply of fish and other marine species, causing them to be harvested faster than they can naturally reproduce and replenish their populations. Collectively, the increased tourism in Shaheed Dweep may lead to higher waste generation and energy consumption, which, if not checked, may induce climate change and environmental degradation, affecting marine biodiversity.

Lack of Cultivation: Shaheed Dweep, once renowned as the "vegetable bowl" of the Andaman Islands for its abundant agricultural production, is now experiencing a noticeable decline in cultivation. The growing dominance of tourism as the Island's primary economic driver has led many residents to shift from traditional farming to tourism-related ventures such as restaurants, homestays, vehicle rental services, and water sports. While this transition has contributed to local economic growth, it has also resulted in the neglect of agricultural practices. Consequently, the Island, which once supplied fresh produce locally and to nearby regions, is now barely able to meet its demand. If this trend continues, ShaheedDweep may soon become reliant on imported vegetables to fulfill its food needs. Further, leaving agricultural land uncultivated for extended periods can lead to several environmental consequences, including soil degradation, nutrient depletion, loss of soil structure, and the spread of invasive weeds. Such changes not only disrupt the local ecosystem but also make the land less viable for future cultivation.

Deforestation: A significant emerging concern in ShaheedDweep is the increasing deforestation caused by the unregulated expansion of tourism infrastructure. Large areas of forest and plantation land are being cleared to construct resorts, hotels, and other tourism-related establishments, leading to the loss of vegetation and degradation of fragile ecosystems. This conversion of forest land not only reduces biodiversity but also contributes to climate change. The local residents are selling their land to private hoteliers and tourism investors for immediate financial benefits. While this provides short-term economic gains, it poses serious long-term sustainability challenges for the island. If this ongoing clearing of forest land for tourism infrastructure continues without proper regulation, it may ultimately lead to extensive deforestation, destruction of ecosystems,

and loss of natural habitats, threatening the ecological balance and environmental sustainability of the island.

Pollution: As tourism expands in Shaheed Dweep, the demand for transportation, accommodation, and other tourism-related services has also increased, which contributes to various forms of pollution. One of the major concerns is the increase in vehicular traffic. The Island has limited road infrastructure and a fragile ecosystem that cannot withstand the impact of unchecked vehicular growth. Exhaust gases released from these vehicles may contribute to greenhouse gas emissions, which play a role in climate change and declining air quality. Another serious issue observed on the island is solid waste pollution. Tourists often generate large amounts of waste, such as plastic bottles, food packaging, disposable items, and other non-biodegradable materials. In small island destinations like Shaheed Dweep, the waste management systems are limited, making it difficult to properly collect, treat, and dispose of the increasing volume of waste. As a result, solid waste may accumulate on beaches, roadsides, and public areas. This not only degrades the aesthetic beauty of tourist destinations but also harms the environment. If not properly regulated, tourism development may lead to a situation similar to Maya Bay (Thailand), Boracay (Philippines) and Bali (Indonesia), where authorities had to restrict or temporarily stop tourist entry due to environmental degradation, including coral damage, sewage pollution, and severe garbage problems.

Power Cut: Shaheed Dweep has been experiencing frequent power outages, and the situation is concerning with the rapid expansion of tourism. A major contributing factor is the high energy consumption by hotels and resorts, which operate power-intensive amenities such as air conditioning, lighting, water heating, and refrigeration around the clock to cater to guest demands. As a result, local residents often face power shortages, especially during peak tourist seasons, affecting their daily lives and essential services. This imbalance in energy usage between commercial and residential sectors has created a sense of inequality and frustration within the local community. If not addressed through proper regulation, infrastructure upgrades, and the promotion of sustainable energy practices, this issue could undermine both the well-being of residents and the long-term sustainability of tourism on the Island.

Action Points

1. Agro-tourism, which integrates agriculture and tourism, has been introduced in the UT of A&N Islands. However, to enhance its scalability, further initiatives such as farm stays, garden tours, culinary activities, and the sale of local produce shall be promoted. This effort will enrich visitors' experience while simultaneously increasing farmer income. This concept shall also be showcased during major events such as the Island Tourism Festival, Monsoon Festival, and Beach Festival. Promoting the direct sale of farm-fresh produce and traditional food items to tourists will not only boost the local economy but also foster cultural exchange and raise awareness about sustainable agricultural practices.
2. The sale of land for commercial use shall be strictly regulated with defined limits on both area and intended purpose. Restricting the size of commercial plots will help prevent the development of large-scale resorts and hotels that could overwhelm the Island's limited resources and harm its fragile ecosystems. Furthermore, the administration should conduct a comprehensive assessment of ShaheedDweep's carrying capacity prior to approving any new commercial ventures.
3. The water sports activities in ShaheedDweep may be regulated by designating specific zones and limiting carrying capacity to protect coral reefs and seagrass beds. Promoting eco-friendly marine transport, such as electric or low-emission boats, and ensuring proper maintenance can help reduce marine degradation. Sustainable fisheries management through seasonal bans, catch limits, and responsible seafood sourcing is essential to prevent overfishing. Finally, regular monitoring of marine biodiversity and strict enforcement of environmental regulations, including the Coastal Regulation

Zone Notification and the Wildlife Protection Act, 1972, are crucial for protecting the island's fragile marine ecosystem.

4. To regulate vehicular traffic and manage commercial growth, two-wheeler rental service operators shall be permitted to maintain only a fixed number of vehicles for business use. Likewise, resorts and hotels shall be allowed to operate a limited fleet, designated solely for guest transport and essential services. This approach will help curb the rise in private tourist vehicles, which contribute to congestion and strain the Island's infrastructure. These limitations will not only support environmental sustainability but also promote responsible tourism, ensuring that business activities align with conservation efforts and community well-being.
5. Effective solid waste management is crucial for ShaheedDweep, considering its limited land resources, fragile ecological environment, and the growing pressure from tourism activities. Practical approaches include promoting waste segregation at the source, implementing decentralised composting systems for organic waste, and encouraging the recycling of materials such as plastic, glass, and metal. In addition, regulatory measures should be enforced to reduce the use of single-use plastics and promote environmentally friendly alternatives in order to minimise waste generation. Furthermore, the active participation of local communities, tourism stakeholders, and visitors in adopting responsible tourism practices plays a significant role in ensuring sustainable waste management on the island.
6. The Tourism Department, in coordination with resorts, tour operators, and local panchayats, shall launch awareness campaigns through brochures, ferry announcements, and hotel briefings to educate tourists about the Island's traditional norms and marine life conservation. Additionally, community-led beach events and programs can play a vital role in reclaiming public spaces for local residents while encouraging tourists to appreciate and respect the importance of preserving cultural values. These initiatives will help foster a balanced environment where tourism can thrive in harmony with local traditions, without compromising the sentiments of the local communities.
7. To address the ongoing power crisis in Shaheed Dweep, implementing a time-bound generator usage policy for hotels and resorts offers a practical and immediate solution. Under this policy, commercial tourism establishments shall be instructed to operate on their generators during specific hours of the day, particularly during peak electricity demand periods. This will help reduce the overall load on the Island's limited public power supply, allowing residential areas and essential services such as hospitals and schools to receive uninterrupted electricity. The initiative not only ensures fairer distribution of energy between the local community and the tourism sector but also encourages hotels to adopt more sustainable practices, such as using energy-efficient appliances or investing in renewable energy sources.
8. Responsible tourism practices during the off-season naturally complement each other and can collaborate effectively to create a more sustainable and balanced travel experience. Annual or seasonal community-led events such as cultural festivals, local food fairs, guided nature walks, and beach clean-up drives can be organised, with a special focus on promoting off-season tourism responsibly. These inclusive activities provide meaningful ways for tourists to engage respectfully with local communities while encouraging cultural exchange and environmental stewardship. Organizing such events during the off-season not only helps in distributing tourist footfall more evenly throughout the year but also provides consistent livelihood opportunities for residents who often depend heavily on seasonal tourism.

CONCLUSION

Shaheed Dweep, a rapidly emerging tourist destination in the Andaman Islands, is renowned for its pristine beaches and serene

natural environment. In recent years, the Island has experienced a consistent increase in tourist arrivals. This study aimed to explore the factors hindering responsible tourism practices from the perspective of the community and environment. The findings reveal a strong consensus that tourism significantly contributes to the local economy by generating employment, supporting small businesses, and improving infrastructure. This aligns with the findings of Abas *et al.* (2014) and Bakar *et al.* (2019), who observed that tourism activities created employment opportunities and enhanced the quality of life for the local community. However, alongside these economic benefits, this study found that residents have expressed growing concerns about the adverse impacts of tourism on the island's fragile ecosystem, cultural values, and resource availability (Kumar and Srivastav *et al.*, 2018). These concerns underscore the urgent need for a more strategic and locally responsive approach to responsible tourism planning, one that balances development with ecological and cultural preservation. Based on the collected data through the field survey, it is evident that Shaheed Dweep is currently positioned in the *Apathy* stage of the Doxey Irritation Index. At this stage, while tourism is still welcomed, the local community tends to focus primarily on its economic benefits. This showcases a diminishing emotional engagement or pride in hosting tourists, which, if not addressed, could eventually progress toward irritation and resentment. Encouraging low-impact, responsible tourism initiatives such as eco-tours, cultural workshops, and community-based tourism during off-season can help maintain tourist activity throughout the year. Such initiatives not only preserve the local culture and environmental integrity but also strengthen mutual respect and emotional bonding between tourists and hosts. Finally, the active involvement of the local administration, panchayats, and tourism stakeholders is essential in bridging the gap between community development and environment preservation. Policies should be framed involving the local residents to ensure that tourism remains a positive force for economic growth without compromising the Island's natural assets. ShaheedDweep has the potential to emerge as a model destination for practicing responsible tourism in the Andaman & Nicobar Islands.

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