The Impact of climate change on Ecotourism: A Review of domestic businesses in Trivandrum District

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Abstract: The activities of ecotourism create positive effect on the environment by contributing to its protection. It is an appropriate way to create environmental awareness and it is a tool to save our biodiversity. Ecotourism is becoming the most accepted and appropriate tourism section for many developing countries. Environment is a key component of ecotourism and the beauty of nature offers variety of tourist attractions for visitors. Ecotourism ensures an option for sustainable development.

Keywords: Climate change, ecotourism, Trivandrum, sustainable tourism, biodiversity, domestic tourism, climate adaptation, environmental degradation.

Introduction

Climate change poses a significant threat to ecotourism particularly in environmentally sensitive regions like Trivandrum. This study is crucial in understanding how climate related factors such as rising temperatures, unpredictable weather patterns, coastal erosion and biodiversity loss impact the ecotourism industry. Domestic businesses that rely on natural attractions and outdoor activities face increasing challenges, including financial instability, reduced tourist arrivals and ecological degradation by assessing these risks, the study aims to provide valuable insights into sustainable tourism practices that can help businesses adopt thrive and despite environmental changes. Furthermore the research can support policymakers in formulating effective strategies to mitigate climate risks and promote sustainable development in the ecotourism sector. Additionally understanding shifts in tourist behavior due to climate change can help businesses failure their services to meet evolving preferences. The study also highlights the importance of community involvement in conservation efforts ensuring that local populations benefit from ecotourism while preserving natural resources.

Review of Literature

Rajesh & Rao, 2021, This study focuses into the burgeoning concept of ecotourism in India, shedding light on its multifaceted impacts on the local communities residing near ecotourism destinations. Focusing on three ecotourism locations in Andhra Pradesh, namely Nallamalai Jungle Camp, Orvakal Rock Garden, and Belum Caves, the research explores the social, economic, cultural, and ecological effects of ecotourism on the surrounding communities. Through a descriptive study involving 300 community members, the study unveils the profound influence of ecotourism on various aspects of their daily lives. The empirical findings underscore the significant positive impact of ecotourism on community well-being and sustainable development. With implications for the promotion and development of ecotourism, this research contributes valuable insights into enhancing the quality of life for community members residing in ecotourism regions, highlighting the transformative potential of responsible tourism practices.

R. R. Kumar, 2021, This research provides critical insights into the nuanced relationship between ecotourism and local communities in Protected Areas, offering a valuable resource for policymakers and planners aiming

to optimize ecotourism strategies while respecting and enhancing the livelihoods of indigenous populations. The study's approach to understanding the ethnic dimensions and political contexts can help in crafting more inclusive and effective ecotourism policies. The findings suggest that ecotourism cannot be generalized across different populations and Protected Areas. Each area requires a customized approach that considers the unique ethnic compositions and their specific attitudes and behaviors. Furthermore, enhancing political empowerment and effective local governance can significantly influence the success of ecotourism by altering how benefits and costs are perceived by the local communities.

Marwaha, 2022, The thesis explores the pivotal role of ecotourism in fostering sustainable development by addressing the needs of the present while safeguarding resources for future generations. It emphasizes the importance of balancing economic growth with environmental conservation and prioritizing the fundamental needs of local communities. By advocating for initiatives that integrate economy and environment, the thesis underscores the interconnectedness between ecotourism, culture, and nature, highlighting its role in shaping our perceptions of the environment. Through critical evaluation and discourse analysis, the thesis contributes to both academic research and industry practices, offering insights essential for ensuring the long-term sustainability of ecotourism initiatives.

Statement of the Problem

Ecotourism in Trivandrum District which thrives on the regions natural beauty and biodiversity, is increasingly threatened by the growing impact of climate change. Rising temperatures, un predictable monsoons, frequent flooding, coastal erosion and habitat degradation are directly affecting the quality and accessibility of ecotourism destinations. This environmental changes pose serious challengers to domestic businesses that depend on stable weather patterns healthy ecosystems to attract tourists.

As climate related disruptions become more frequent, ecotourism businesses face declining visitor numbers, increased operational costs and reduced profitability. Moreover small and medium sized enterprises in this sector, lack the resources knowledge, or support to implement effective adaptation strategies. Despite the urgency of the situation there is limited research focused specifically on how climate change impact domestic ecotourism businesses in the Trivandrum District.

Scope of the Study

The study focuses on analyzing the impact of climate change on ecotourism in the Trivandrum district, with a particular emphasis on domestic businesses that rely on nature based tourism. The research examines hour climate related factors such as rising temperatures, unpredictable weather patterns coastal erosion and biodiversity loss are affecting ecotourism activities, business operations and visitor patterns.

Objectives

- To analyze the effects of climate change on ecotourism activities in Trivandrum District.
- To asses the challenges faced by domestic ecotourism businesses due to climate related changes such as rising temperatures, erratic rainfall and coastal erosion.
- To evaluate changes in tourist behavior and preference in response to climate related disruption.

Research Gap

This gap in understanding makes it difficult for stake holders to develop targeted policies, business strategies or community based initiatives to address the challenges. Therefore it becomes essential to study the relationship between climate change and ecotourism evaluate the vulnerabilities of domestic businesses, and explore sustainable solutions to ensure the long term resilience of ecotourism sector in the region.

Findings

- A significant number of domestic ecotourism businesses in Trivandrum believe that climate change in negatively affecting their operations, particularly unpredictable weather, coastal erosion, and biodiversity loss.
- Many businesses report more cancellations and lower tourist turnout during creation months, attributed to unseasonal rains, floods or heat waves.

- Most small and medium ecotourism businesses like the resources or to implement proper climate or adaptation strategies.
- Tourists are showing growing concern for sustainable practices and ecofriendly services, which is influencing their travel choices.
- Business feel that government initiatives and financial aid for climate adaptation in the ecotourism sector are insufficient or poorly implemented.

Suggestions

- Conduct regular awareness programs and workshops for ecotourism operators on climate adaptation, disaster preparedness and sustainable business models.
- Provide incentive for businesses to adopt ecofriendly practices such as solar power, rain water harvesting system.
- The local government should collaborate with stakeholders to create a climate resistant tourism development policy tailored for vulnerable areas in Trivandrum.
- Strengthen the involvement of local communities in ecotourism projects offering them training and economic support to maintain ecological balance.
- Establish better data collection and weather monitoring system help business plan ahead and respond effectively to climate risk.
- Collaborate with NGOs tourism boats and academic institution to found research and pilot projects that address climate changes in tourism.

Conclusion

The study on "The Impact of Climate Change on Ecotourism: A Review of Domestic Businesses in Trivandrum Districts" highlights the growing challenges faced by the ecotourism sector due to climate variability and environmental degradation. The findings reveals that climate change has a significant influence on ecotourism affecting tourist arrivals, business operations and the overall sustainability of nature based tourism activities. Domestic businesses, especially small and medium enterprises, are increasingly vulnerable due to limit resources and lack of preparedness to adapt to climate impacts.

The research also emphasis also the shifting behavior of tourist, who are now more conscious of environmental issues and prefer destinations that adopt sustainable practices. While same businesses making efforts to become ecofriendly that remains a need for greater support from government agencies, tourism boards and community stakeholders to build resilience.

In conclusion proactive measures such as environmental education, policy supporters, sustainable infrastructure, and community involvement are essential for protecting Trivandrum's ecotourism sector by promoting sustainable practices and enhancing adaptive capacity. The region can ensure the long term growth and resilience of ecotourism in the face of climate change.

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