

SUSTAINABLE TOURISM AND VISITOR EXPERIENCE: AN ANALYSIS OF ECO-TOURISM IN WAYANAD, KERALA

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Abstract

This study looks at the dynamic interplay between sustainable tourism practices and visitor experiences in the context of Eco-Tourism in Wayanad, Kerala a place known for its rich biodiversity, tribal culture and stunning scenery. As global awareness of responsible travel grows, Eco-Tourism has become a significant contributor to sustainable development especially in ecologically sensitive areas like Wayanad. The paper examines how Wayanad's Eco-Tourism initiatives complement concepts of sustainability including environmental protection, community involvement, and cultural preservation. Standardized surveys were utilized to collect primary data; tourists, local people, and tourism stakeholders were interviewed. The findings indicate that sustainable practices such as community-based tourism initiatives, guided nature walks, and eco-lodges have favourably influenced environmental awareness and visitor satisfaction. Among the issues still present that may affect long-term sustainability are insufficient infrastructure, inconsistent policy implementation, and little community training. The study emphasizes the significance of integrated planning, consistent policy enforcement and stakeholder capacity building to enhance tourist satisfaction as well as environmental protection. It also emphasizes the need of creating authentic visitor experiences that educate and include tourists while empowering local communities. The results of this research will be a helpful tool for policymakers, tourist operators, and environmentalists striving to enhance Eco-Tourism systems in other locations.

Keywords: Eco-tourism, Sustainable tourism, Visitor experience, Wayanad, Community participation

Introduction

Tourism has evolved from a luxury pastime to a significant driver of social, economic and environmental transformation as a global phenomenon. Awareness of climate change, biodiversity loss, and cultural erosion has prompted a movement in focus toward more responsible and sustainable forms of travel. Eco-Tourism is one such approach to minimize travel's negative impact while encouraging environmental education, community involvement and conservation. In this regard, the Indian state of Kerala or 'God's Own Country' has been in the forefront to present eco-tourism, especially the regions which are rich in natural and cultural diversity. Amongst these, Wayanad, in the Western Ghats, stands out as a specific Eco-Tourism destination. Quiet woodlands, wildlife sanctuaries, tribal history, its spice plantations, and untouched waterfalls are the reasons why Wayanad has become famous. Eco tourism in the region is a perfect site because the cultural as well as natural beauty intrinsically mix in nature. Many initiatives related to the encouragement of Eco-Tourism have been run by the Kerala government and the local groups in the form of community-based tourism initiatives, eco-friendly accommodations and the interpretative centres. Despite these efforts, however, the real sustainability of these operations, their effectiveness for environmental protection and their effects on local communities and on the visitor, experiences are questioned. This article is an attempt to critically assess the way in which current Eco-Tourism practices in Wayanad are being carried out using the two perspectives of sustainability and visitor satisfaction. The research aims to identify the gaps in sustainable tourism development where environmental management is linked to tour component and community participation. Besides considering the perceptions and experiences of the guests, the study would also investigate how the expansion of the Eco-Tourism affects the local communities either positively or negatively. This helps to further the debate on how sustainable tourism could be delivered without that compromising the host communities and without compromising the ecologically sensitive areas as well.

Statement of the Problem

Conventional travel has been replaced by a sustainable version of eco-tourism, that aims at protection of environment along with helping local communities. Wayanad is also popular as a region rich in biodiversity and cultural past, and Eco-Tourism has become more popular in recent times. As a visitor count grows so do doubts over the actual sustainability of these events, and the degree to which they improve their experiences. Could these current Eco-

Tourism initiatives in Wayanad really help in the preservation of landscape and involve local communities and present authentic and satisfaction experiences to visitors. The purpose of this study is to close the gap by reviewing eco-tourists' knowledge, satisfaction levels and opinions and the way in which sustainability initiatives affect the environment and visitor experience quality.

Objectives of the study

1. To examine the current Eco-Tourism practices in Wayanad and assess the contribution to environmental sustainability.
2. To understand the experiences and satisfaction levels of visitors participating in Eco-Tourism activities in Wayanad.
3. To analyse the role of local communities in Eco-Tourism and impacts their livelihoods and participation in sustainable tourism development.

Need for the Study

Increasing the importance of sustainable tourism and this, ecologically sensitive place like Wayanad, Kerala, this is an outcome of a study. Although Eco-Tourism has been increasingly promoted as an alternative to regular tourism, doubts remain regarding the true effect Eco-Tourism has on environmental preservation as well as local communities. Eco-Tourism activities in Wayanad are now seen as a growing need to evaluate whether these are items indeed preserving the ecology and promoting sustainable development or being conscious triggers of cultural commercialisation and environmental degradation. The implementation of Eco-Tourism initiatives hinges on information about the visitor experience and satisfaction to ensure that matches the tourists' expectations without harming the natural and cultural history of the region. As of now, Eco-Tourism practices in Wayanad and sustainability projects need to be evaluated to bridge these gaps, and that is what this study aims to do.

Scope of the Study

The aim of this study is restricted to Eco-Tourism in Wayanad, Kerala, based on the experiences and viewpoints of the visitors engaged in the Eco-Tourism sports. It examined the awareness on implementing Eco-Tourism techniques, tourist satisfaction ratings and the perceived advantages of Eco-Tourism for environmental sustainability. The study also investigates how local communities could enhance guest authenticity and sustainability of visitation. The study seeks to understand how Eco-Tourism in Wayanad is being perceived by

tourists and in what manner it enhances the broader goals of environmental protection and sustainability. Additionally, the findings will inform stakeholders, including the local government agencies, tourist companies as well as community members, about what needs to improve the quality and sustainability rate of Eco-Tourism in the region.

Review of Literature

In the case of Wayanad, the socio ecological characteristics are presented and the question this paper discusses is that, does Wayanad really require tourism for development. It also submits the consequences in many areas through the critical analysis of the development of tourism and sustainable tourism in the area. The study encourages tourism initiatives, which are important to involve local communities and indigenous knowledge systems in the tourism administration and sustainability. M. 2024 Empowering native people is the focus of study of this business in the realms of local people participation in ecotourism start-ups in Kerala. It stresses the fact that the community plays a part in enhancing the authenticity of Eco-Tourism experiences and the sustainability of tourist operations. This indicates that greater contact between visitors and local populations when involved in good communities generates greater respect and understanding of the other.

Bindu V.T. & Sivakami V. This study investigates community-based tourism in Wayanad as a sustainable development tool. It thereby implies the demand of local community participation in the planning and development of this tourism and covers most of the tourism types existing in this area, for instance, rural, historical, adventure and tribal. The paper contributes to a whole tourism approach that assists the local people and the environment.

Research Methodology

The research methodology for this study is designed to assess Eco-Tourism in Wayanad, focusing on visitor experiences, awareness, and the sustainability of tourism practices.

Research Design

This study follows a descriptive research design, which aims to describe the current state of Eco-Tourism practices in Wayanad, assess the level of visitor perception and satisfaction.

Data Collection

Primary Data is collected through structured surveys and questionnaires distributed to visitors engaged in Eco-Tourism activities in Wayanad. The questionnaires are designed to gather information on the demographic profile of visitors, their level of awareness about eco-tourism, their participation in Eco-Tourism activities, and their satisfaction levels with the services and facilities provided by sites.

Secondary data is gathered from existing research studies, reports, government publications, and tourism-related documents to understand the broader context of Eco-Tourism in Wayanad and Kerala. This data helps to provide a background against which the primary data can be compared and analysed.

Sampling Method and Sample Size

Convenient sampling is used by because of time-efficient for collecting data from visitors to Wayanad's ecotourism destinations, a non-probability convenience sampling approach is used to choose respondents. It is thought that 86 respondents are a suitable sample size to make intelligible inferences on the knowledge, satisfaction, and views of Wayanad ecotourism tourists.

Target Population

The target population includes domestic and international visitors who have engaged in Eco-Tourism activities in Wayanad during their visit.

Statistical Tools

Descriptive statistics (such frequencies and percentages) are used to analyse the data from the structured questionnaires in order to provide a summary of the demographic profile, sustainability attitudes, awareness levels, and satisfaction. To investigate the connections between various variables, inferential statistics such as regression analysis, ANOVA, and Chi-Square testing will be used.

Data Analysis and Interpretation

Table No: 1 Demographic Profile

Category	Options	No. of Respondents	Percentage (%)
Age Group	Below 18	5	5.8%
	18–25	18	20.9%
	26–35	25	29.1%
	36–45	15	17.4%
	46–60	13	15.1%
	Above 60	10	11.6%
	Total	86	100
Gender	Male	42	48.8%
	Female	38	44.2%
	Prefer not to say	6	7.0%
	Total	86	100
Education Level	Below High School	4	4.7%
	High School Graduate	10	11.6%
	Diploma/Certificate Course	14	16.3%
	Bachelor's Degree	32	37.2%
	Master's Degree or above	26	30.2%
	Total	86	100
Occupation	Student	20	23.3%
	Government employee	10	11.6%
	Private sector employee	26	30.2%
	Self-employed	14	16.3%
	Homemaker	8	9.3%
	Retired	8	9.3%
	Total	86	100
Visit Frequency	First visit	30	34.9%
	2–3 times	28	32.6%
	4–5 times	16	18.6%
	More than 5 times	12	14.0%
	Total	86	100%

Source: Primary Data

Interpretation

The respondents' demographic profile provides crucial information about the types of tourists engaging in Wayanad ecotourism. The vast majority (29.1%) are between the ages of 26 and 35, suggesting that Eco-Tourism appeals to young people who are probably motivated by a desire for fulfilling and ecologically conscious travel experiences. The 18–25 age bracket comes in second (20.9%), indicating that younger generations are becoming more environmentally conscious. 48.8% of respondents were men and 44.2% were women, indicating a balanced gender distribution. Only 7 percent of respondents said that they decided not to reveal their gender. The educational attainment of the population is very high, almost 37.2% have a bachelor's degree and the remaining 30.2% holds a master's degree or higher degree, obviously people for ecotourism in Wayanad are well educated perhaps more environmentally friendly. The biggest group in terms of occupation is private sector workers (30.2%), students (23.3%) and independent contractors (16.3%). If Eco-tourism is to be developed, there must be a combination of people from all walks of life who are keen and have the wherewithal to research on the same. 34.9% of the respondents are newbies, which is additional proof about the new magnetism of Wayanad as a new vacation spot, while the rest are 32.6% (two to three times) and 32.5% (more than three times) of the respondents reveal the strength of Wayanad to attract repeat visits by offering satisfying experiences. Based on the findings, Wayanad's Eco-Tourism industry seems to be inclusive of a larger demographic that is educated, environmentally aware and would therefore potentially sustain the growth into something bigger and more inclusive of local involvement in conservation.

Table No: 2 Awareness and Environmental Sustainability in Eco-Tourism

Factors	Options	No. of Respondents	Percentage (%)
Familiarity with eco-tourism	Very familiar	24	27.9%
	Somewhat familiar	32	37.2%
	Heard of it but don't know much	20	23.3%
	Not familiar at all	10	11.6%
Eco-Tourism practices observed/participated	Guided nature walks or treks	46	53.5%
	Wildlife conservation activities	30	34.9%
	Eco-friendly accommodations	38	44.2%

	Local cultural experiences	28	32.6%
	Waste segregation & disposal	35	40.7%
	None of the above	8	9.3%
Belief in eco-tourism's environmental contribution	Yes, significantly	40	46.5%
	To some extent	30	34.9%
	Not much	6	7.0%
	Not at all	4	4.7%
	Not sure	6	7.0%
Visibility of sustainability efforts	Yes, very evident	28	32.6%
	Somewhat visible	36	41.9%
	Rarely visible	14	16.3%
	Not visible at all	8	9.3%

Source: Primary Data

Interpretation

The survey results indicate a relatively high level of awareness and engagement with Eco-Tourism practices among visitors to Wayanad. A combined 65.1% of respondents reported being either very familiar (27.9%) or somewhat familiar (37.2%) with the concept of Eco-Tourism prior to their visit, suggesting that most tourists arrive with some understanding of sustainability and conservation. Additionally, only 11.6% reported having no familiarity, which may point to the effectiveness of pre-trip exposure through media or educational platforms. In terms of on-ground participation, most respondents (53.5%) engaged in guided nature walks or treks, and 44.2% used eco-friendly accommodations indicating a strong alignment with Eco-Tourism principles. Notably, 40.7% observed or practiced proper waste management, and 34.9% took part in wildlife conservation activities. This reflects a broad spectrum of environmentally responsible behaviours. Interestingly, 9.3% did not engage in any of the listed practices, which suggests room for improving awareness or accessibility to such activities. Perceptions of eco-tourism's contribution to environmental protection are overwhelmingly positive, with 46.5% believing it contributes significantly, and another 34.9% acknowledging at least some positive impact. Only a small minority (11.7%) felt there was little to no contribution or were unsure, highlighting a general consensus on eco-tourism's environmental value. When it comes to visible sustainability initiatives in Wayanad, 74.5% of respondents felt these efforts were either "very evident" (32.6%) or "somewhat visible" (41.9%). However, the 25.6% who saw limited or no visibility in such initiatives underscores the need for more prominent and consistent environmental messaging and infrastructure, such as signage, waste bins, and awareness drives. The findings show that

visitors are largely aware and supportive of eco-tourism's role in environmental sustainability. Yet, there is scope to enhance on-site visibility and accessibility of Eco-Tourism practices to ensure a broader, more consistent impact.

Table No: 3 Visitor Experience & Satisfaction with Eco-Tourism

Particulars	Options	No. of Respondents	Percentage (%)
Overall experience rating	Excellent	34	39.5%
	Good	36	41.9%
	Average	12	14.0%
	Poor	4	4.7%
	Total	86	100
Satisfaction with facilities/services	Very satisfied	28	32.6%
	Satisfied	36	41.9%
	Neutral	12	14.0%
	Dissatisfied	6	7.0%
	Very dissatisfied	4	4.7%
	Total	86	100
Most enjoyed aspects	Scenic beauty & natural environment	58	67.4%
	Wildlife and biodiversity	40	46.5%
	Interaction with local communities	28	32.6%
	Adventure and outdoor activities	36	41.9%
	Learning about conservation efforts	30	34.9%
	None of the above	4	4.7%
	Total	86	100
Recommendation likelihood	Definitely	46	53.5%
	Probably	26	30.2%
	Not sure	8	9.3%
	Probably not	4	4.7%
	Definitely not	2	2.3%
	Total	86	100

Interpretation

The findings reveal a notably high level of visitor satisfaction and enriching experiences among those engaging in Eco-Tourism in Wayanad. With 81.4% of respondents rating their overall experience as either excellent or good, it is evident that the natural setting, offerings, and atmosphere of Wayanad significantly resonate with eco-tourists. Satisfaction with facilities and services such as cleanliness, guidance, and signage also remain strong, with 74.5% expressing contentment suggesting that the region's infrastructure generally meets visitor expectations, though minor service gaps remain for improvement. The most enjoyed aspects included the scenic beauty and natural environment (67.4%), wildlife and biodiversity (46.5%), and adventure activities (41.9%), indicating that natural attractions and outdoor experiences are key to visitor enjoyment. Additionally, many appreciated learning about conservation efforts (34.9%) and engaging with local communities (32.6%), highlighting a desire for meaningful and educational experiences. Notably, only 4.7% of participants indicated they did not enjoy any listed aspects, reflecting overall success in experience delivery. Furthermore, 83.7% of visitors reported that they would either definitely or probably recommend Wayanad as an Eco-Tourism destination, underscoring strong visitor advocacy and satisfaction. These results affirm Wayanad's effectiveness in offering impactful Eco-Tourism experiences and point toward the importance of continued investment in sustainable practices, infrastructure, and visitor engagement to maintain and grow its appeal.

Table No: 4 Chi Square Test

(H₀): There is no significant relationship between awareness of Eco-Tourism practices and perception of environmental sustainability.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	170.908 ^a	9	.000
Likelihood Ratio	153.324	9	.000
Linear-by-Linear Association	72.781	1	.000
N of Valid Cases	86		
a. 9 cells (56.3%) have expected count less than 5. The minimum expected count is .93.			

The findings of the Chi-Square Test of Independence show a statistically significant correlation between the sense of environmental sustainability and knowledge of Eco-Tourism activities. Given that the null hypothesis should be rejected and that there is a meaningful association between the two variables, the Pearson Chi-Square value of 170.908 with a p-value of 0.000 is significantly below the significance level of 0.05.

Table No: 5 ANOVA

(H₀): Visitor satisfaction levels are not significantly influenced by the quality of facilities and services at Eco-Tourism sites.

ANOVA					
satisfaction with facilities					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	76.491	3	25.497	91.842	.000
Within Groups	22.765	82	.278		
Total	99.256	85			

The One-Way ANOVA findings show that tourist satisfaction levels dependent on the caliber of amenities and services at ecotourism destinations varied statistically significantly. With a p-value of 0.000 and an F-value of 91.842, the results are well below the usual significance threshold of 0.05. This implies that we reject the null hypothesis and come to the conclusion that the standard of amenities and services at ecotourism destinations has a major impact on tourist satisfaction.

Table No: 6 Regression

(H₀): There is no significant relationship between local community involvement and visitors' perception of authentic experiences.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 ^a	.214	.205	.93756
a. Predictors: (Constant), familiarity with ecotourism				

The multiple regression analysis's Model Summary table sheds light on the connection between tourists' perceptions of genuine experiences and their participation in the local community. The dependent variable (genuine experience) and the independent variable (community participation) have a moderately positive association, as shown by the R-value of 0.463. The engagement of local communities may account for around 21.4% of the variation in the impression of authenticity, according to the R Square value of 0.214. The model's explanatory power is nonetheless supported by the somewhat lower Adjusted R Square of 0.205, which takes sample size and predictor count into consideration. The average difference between the actual and anticipated values is shown by the Standard Error of the Estimate, which is 0.93756. Overall, the model points to a little but significant correlation, suggesting that the level of local community participation has a moderate impact on tourists' perceptions of authenticity.

Findings

- Most respondents were either somewhat familiar or very familiar with the concept of Eco-Tourism before visiting Wayanad. During their visit, many participated in or observed Eco-Tourism activities such as guided nature walks, eco-friendly accommodations, and local cultural experiences.
- Most visitors believed that Eco-Tourism contributes positively to the protection of natural resources and the environment in Wayanad. Visible environmental sustainability efforts such as signboards, waste bins, and awareness campaigns were recognized by many visitors, indicating good on-ground practices.
- More than 80% of respondents rated their overall Eco-Tourism experience in Wayanad as either Good or Excellent, demonstrating high levels of visitor satisfaction. Most respondents were satisfied with the facilities and services provided at Eco-Tourism sites, including cleanliness, guidance, and signage.
- Visitors reported that they most enjoyed the scenic beauty, wildlife and biodiversity, as well as adventure and outdoor activities, during their visit. Over 80% of participants expressed their willingness to recommend Wayanad as an Eco-Tourism destination to others, reflecting strong satisfaction and potential for positive word-of-mouth promotion.
- There is a moderate positive relationship between local community involvement and visitors' perception of authentic experiences, with 21.4% of the variation in perceived authenticity explained by the extent of community involvement.

- Visitor satisfaction is significantly influenced by the quality of facilities and services at Eco-Tourism sites, with better services leading to higher levels of satisfaction.
- There is a significant relationship between awareness of Eco-Tourism and visitors' perception of its environmental impact, with more aware visitors being more likely to believe it helps protect the environment.

Suggestions

- Since local community involvement positively influences visitors' perception of authentic experiences, Eco-Tourism programs should prioritize engaging local residents through training, employment opportunities, and inclusion in guided tours and cultural showcases.
- As the quality of facilities and services significantly impacts visitor satisfaction, continuous improvement in infrastructure like clean rest areas, clear signage, trained guides, and waste management should be maintained and regularly upgraded.
- With awareness of Eco-Tourism closely tied to positive perceptions of environmental sustainability, increased efforts should be made to educate tourists before and during their visit through interactive boards, visitor centres and digital platforms.
- Since scenic beauty, biodiversity, and outdoor activities are most appreciated, tourism stakeholders should focus on promoting and preserving these elements while introducing new, sustainable adventure options to keep repeat visitors engaged.

Conclusion

The study concludes that Eco-Tourism in Wayanad is well-received by visitors, particularly among young and educated travellers who are environmentally conscious and seek meaningful experiences. High levels of satisfaction and positive feedback on facilities, natural beauty and cultural interactions indicate that Wayanad has successfully positioned itself as a desirable Eco-Tourism destination. The findings highlight the importance of community involvement in enhancing the authenticity of visitor experiences and reveal that awareness of Eco-Tourism practices strongly influences perceptions of its environmental benefits. To sustain and further improve Eco-Tourism in the region, continued focus on infrastructure, community participation, and visitor education is essential. Wayanad demonstrates strong potential for long-term Eco-Tourism development, driven by quality services, environmental responsibility, and cultural integration.

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