

RESEARCH ARTICLE



Exploring The Ecotourism Paradox: Perspective of Local Residents in Accredited Ecotourism Sites in Laguna Province Towards Sustainable Ecotourism Development

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Article Info:

Received 18 March 2024

Revised 23 June 2024

Accepted 30 June 2024

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This paper was presented at International Conference on Responsible Tourism and Hospitality (ICRTH) 2023

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Abstract

Ecotourism is a form of travel which has a potential to serve as an environmentally, socioculturally, and economically viable option for promoting sustainable tourism development. Whilst ecotourism can be a financially rewarding activity for the local economy, it can also have some drawbacks, just like any other kind of tourism, that must be addressed. The study aimed to explore the paradox on accredited ecotourism sites manifested in the province of Laguna. The study significantly concluded that different demographic groups have varying perceptions and priorities regarding the level of sustainability on ecotourism. The significant differences in perceptions across locations reveal a tension. These paradoxes highlight the complexities of achieving truly sustainable ecotourism. Addressing them requires a holistic approach that acknowledges trade-offs, embraces diverse perspectives, and prioritizes long-term well-being over short-term gains.

Keywords: ecotourism, perceptions, sustainable tourism, economy

1. Introduction

Ecotourism focuses on responsible travel practices putting emphasis on economic viability, cultural sensitivity, and environmental preservation while minimizing adverse negative impacts. In 2018, the International Ecotourism Society (TIES) redefined it as responsible travel in natural reserves, taking care of well-being, and engaging in translation and education [1]. In this notion, the concept of ecotourism is tied to sustainable tourism and is in conjunction with sustainable tourism principles, namely environment, economic and socio-cultural in achieving long-term sustainable development. In 2002, the UNWTO provided characteristics of ecotourism wherein the observation and appreciation of nature, as well as the traditional cultures prevailing in natural areas, should be the main motivation of the tourists, an educational component should be integrated wherein an existing environmental conservation program taking place, and generally, but not exclusively organized by specialized tour operators for small groups by the residents themselves [2]. In this notion, for ecotourism to be sustainable in any given location, it is imperative to comprehend how the locals view ecotourism and its effects from social, cultural, economic, and environmental standpoints, as this influences their degree of support for the growth of ecotourism [3].

Laguna is one of the provinces in the Philippines significantly highlighting the value of natural areas and emphasizing the importance of fragile biodiversity while promoting environmental protection, and economic development to a local community through ecotourism project. This concept of ecotourism has been considered a possible instrument for sustainable development through the initiatives of the preservation of a natural destination and the responsible act of tourists. While ecotourism brings numerous benefits, it faces several challenges towards sustainable development which steered a growing attention among practitioners and academicians. In 2017, the Department of Environment & Natural Resources (DENR) and Ecosystem Research Development Bureau (ERDB) in the country presented a tool to monitor and evaluate ecotourism sites in the Philippines ensuring that ecotourism projects in the country is helping to protect the environment and promote sustainable development [4]. In 1998, another joint undertaking between the DENR and the

Department of Tourism (DOT) issued “Guidelines for Ecotourism Development” in protected areas under Executive Order No. 111, focusing on the development and promotion of sustainable tourism while enjoining the participation of Filipino people in enhancing the growth and competitiveness of the Philippine economy [5].

The Philippines, known for its abundant natural beauty, has increasingly embraced ecotourism as a means of fostering economic growth while preserving the environment. However, this endeavour is not without its complexities. Despite its goal to safeguard pristine landscapes and support local communities, the lack of monitoring of the impacts of tourism has contributed to the deterioration of the resources it seeks to protect. Some underlying issues of concern in the country evolved due to weak implementation of the monitoring tools, given the fact that DENR had launched an Ecotourism Tracking Tool (ETT) intended for monitoring and measuring ecotourism toward achieving sustainable ecotourism. Previous studies cited that the issues and barriers to sustainable ecotourism implementation could be attributed to the insufficient knowledge and awareness of local communities about sustainable tourism practices, which can undermine conservation efforts in ecotourism sites [6]; limited financial support of the government in terms of budgetary requirements; and lack of local community involvement [7]. In this manner, while ecotourism is fundamentally focused on being a sustainable form of tourism that contributes to the well-being of the environment, the communities’ inherent inconsistencies have given rise to a paradox in ecotourism implementation. This study explored this paradox by examining the difficulties of harmonizing economic progress while implementing environmental sustainability and providing positive socio-cultural impacts among residents in the declared ecotourism sites in one of the provinces in the Philippines. Through an analysis of the implementation and results of ecotourism initiatives, this research aimed to illuminate the intricacies and potential challenges of this widely adopted approach to ecotourism. The study focused on identified protected areas named Majayjay Falls Mount Makiling Forest Reserve, Panguil River Ecopark, Macatad Ecotourism Sites, and Kilangin Falls. Specifically, the study aimed the following:

1. To investigate the activities offered by ecotourism sites
2. To determine demographic profile of respondents
3. To assess the level of sustainability based on the three pillars of sustainable tourism, namely economic, socio-cultural and environment.
4. To test significant differences when the data were grouped according to the demographic profile of respondents.

2. Literature Review

2.1. Ecotourism concept

In 2018, the International Ecotourism Society (TIES) [1] redefined ecotourism as responsible travel in natural reserves, taking care of the well-being, and engaging in translation and education. This type of tourism has been considered a possible instrument for sustainable development through the initiatives of preservation of a natural destination and the responsible act of tourists. In this sense, the involvement of local people in the development of sustainable tourism is essential in tourism decision-making and business opportunities to ensure tourism benefits them directly, reducing poverty and inequality, which leads to improved well-being in the community. By focusing on the principles of sustainability, ecotourism aims to minimize its impact while maximizing the experience for tourists and giving benefits to local communities. The United Nations Environment Programme UNEP [8] presented underlying principles and concepts of ecotourism. Some essential components involved the following: sustaining the well-being of local people, environmental protection, and ecotourism must offer an educational component providing an interpretation and learning experience among visitors on protecting the planet.

2.2. Community empowerment

Community involvement through the community empowerment approach plays a significant role, as the community serves as an asset supporting the actualization in terms of

conservation area management [9]. Additionally, community views are important for effective sustainable tourism development as the understanding of communities' feelings and thoughts could be useful among decision-makers [10]. In this notion, the active participation of various stakeholders is also crucial to the successful development and sustainability of ecotourism, and it is attributed to the inclusive participation of a variety of stakeholders who engage in planning, resourcing, and leading during ecotourism development processes.

2.3. Issues and barriers to planning and management of ecotourism sites

Consequently, one of the major challenges in making ecotourism sustainable is attributed to the lack of local community involvement [11]. Similarly, several authors also cited on issues and barriers on sustainable development implementation and attributed them to the following: insufficient knowledge and awareness among visitors [12]; the resistant of local community to adopt more sustainable practices due to a lack of understanding of the negative impacts it brings, and [13]; limited financial support of the government in terms of budgetary requirements [6]. Furthermore, other issues concerning ecotourism planning was due to overdevelopment and infrastructure pressure [14]; lack of proper planning and management of ecotourism destinations leading to overcrowding and degradation of natural resources [12]. Given the underlying principles of ecotourism, the sustainability of ecotourism projects is being compromised and failure to address the problem may result in serious threats.

3. Methodology

3.1. Research design

This study used descriptive comparative research method. It is a quantitative research design that aims to describe and compare the characteristics or outcomes of two or more pre-existing groups in a population to assess the level of sustainability in accredited ecotourism sites in the Province of Laguna. The process of descriptive research goes beyond mere gathering and tabulation of data. It involves the elements or interpretation of the meaning or significance of what is described [15]. The respondents of the study were the residents residing adjacent to the declared ecotourism sites in Laguna namely: Majayjay Falls a protected area, Panguil River Ecopark a natural park, along with Mount Makiling Reserve also declared as an ASEAN Natural Park, Macatad Ecotourism Sites, and Kilangin Falls which was added in 2014 by the National Ecotourism Strategy (NES) in the Philippines. A purposive sampling was employed in the study. The purposive sampling technique, also called judgment sampling, is used when the researcher relies on his or her judgment in identifying the member of the population to participate in the undertakings. Participants must be at least 18 years old and have currently been residing for at least one year or a permanent resident or involved in any ecotourism operation. A sample size of 278 was drawn from a population of 1,000 which was calculated using the Raosoft sample size calculator.

3.2. Data collection instrument

A survey questionnaire was used in the study. The content of the questionnaire was composed of two (2) parts. The first part was the demographic profile and location of ecotourism sites, and the second part was the level of sustainability. The demographic factors include age, marital status, gender, educational attainment, employment status, and location of ecotourism sites. Part two was a questionnaire identifying the level of sustainability in terms of economic, socio-cultural, and environment. In terms of economic, it measured how ecotourism contributed to generating income and employment among locals. In terms of socio-cultural this determined on how ecotourism helps improves the quality of life of the locals and preserved the cultural identity and determined whether gender equalities has been implemented. In terms of the environment, this assessed the conservation of nature and biodiversity, including how ecotourism being maintained in terms of cleanliness and infrastructure. The result of the reliability test on the level of sustainability based on Cronbach's alpha was 0.778, which signified that the items used in the questionnaire were

highly reliable. Questionnaires were distributed without the respondent's name to keep the data private and to encourage critical opinion.

3.3. Data analysis

In this study, descriptive research design was employed to facilitate a clear and concise presentation of the findings into tables pertaining the following data information consist of demographic profile of respondents and level of sustainability. The study applied statistical tools of frequency distribution, mean and standard deviation. A test of significant differences between demographic profiles was used to determine whether there is a statistically significant difference between the demographic characteristics of two or more groups. ANOVA test was conducted to find out the significant difference on the assessment in the level of the sustainability. All analyses were performed using SPSS version 28. A 5-point Likert scale was used with the following interpretations.

Table 1. Likert scale

Rating	Evidence	Weighted Mean	Interpretation	Legend
5	Strongly agree	4.00-3.5	Highly evident	HE
4	Agree	3.49-2.5	Evident	E
3	Moderately agree	2.49-1.5	Less evident	LE
2	Disagree	1.49-1.00	Not evident	NE
1	Strongly disagree	1.49-1.00	Strongly not evident	SNE

4. Results and Discussion

This section discusses the following: Table 2 below presents the activities offered by ecotourism sites and the demographic profile of respondents. In terms of activities offered, none of any ecotourism sites offered educational activities. This is quite alarming considering that the educational component is essential for ecotourism. By incorporating educational activities, ecotourism can become a more powerful force for good particularly for visitors to become more responsible stewards of the environment, and their experiences can contribute significantly to long-term conservation efforts.

Table 2. Profile of the ecotourism sites in terms of activities offering

Name of Ecotourism Sites	Years in Operation	No. of employees	Activities Offered
Majayjay, Falls	22 years	5	Swimming, Camping, Trekking, Picknick, Waterfall-hopping
Kilangin Falls	9 years	9	Swimming, Trekking, Waterfall-hopping
Macatad Ecotourism Sites	9 years	9	Horseback riding , Rappel, Camping
Panguil River Ecopark	15 years	10	Swimming, Rubber tubing, Camping, Trekking, Picknick,
Mount Makiling Forest Reserve	19 years	61	Camping, Trekking, Mountain Biking, Site Seeing

Table 3 below presents the demographic profile of respondents. In relation to age, most of the respondents (22.5 %) were aged between 20-29. Various age groups have been raised

with different encounters with environmental shifts, economic progress, and social standards. These encounters shaped their beliefs, preferences, and views on sustainability. In terms of civil status, both married and single had almost the same number of representations. It is interesting to note that regardless of their civil status, participation of diverse groups emphasizes the need for a holistic approach to sustainability in ecotourism not just about environmental protection but also about considering the social, cultural, and economic impacts. Concerning gender, the study revealed that the majority of respondents were female, and 77 were male, representing 62.3 % and 37.7 % respectively of the total respondents. Differences in the level of sustainability perceptions between female and male individuals allow for a more nuanced understanding of these differences considering gender equality must be in place in an ecotourism site. In terms of educational attainment, the majority of respondents were high school graduates. Such a high level of engagement among high school graduates may indicate a willingness to participate in shaping the future of ecotourism in their area. In terms of location, most of the respondents came from Panguil, such high participation from this community provides a valuable opportunity to gather in-depth insights into their perspectives on the level of sustainability in ecotourism. The conflicting views on sustainable ecotourism among different demographics pose challenges to achieving genuine sustainability. Thus, to be truly sustainable, ecotourism initiatives must be tailored to suit the unique characteristics and challenges of each location.

Table 3. Profile of respondents

Profile	Frequency	Percentage
Age		
Less than 20	16	7.80%
20-29	46	22.50%
30-39	39	19.10%
40-49	33	16.20%
50-59	36	17.60%
Above 60	34	16.70%
Marital Status		
Married	100	49.00%
Single	104	51.00%
Gender		
Female	127	62.30%
Male	77	37.70%
Educational Attainment		
Elementary	8	3.90%
High School Graduate	106	52.00%
College Graduate	75	36.80%
Master's Graduate	3	1.50%
Postgraduate	1	0.50%
Vocational Course	11	5.40%
Location of Ecotourism Sites		
Majayjay Falls	42	20.60%
Panguil River Ecopark	57	27.90%
Mt. Makiling Forest Reserve	48	23.50%
Macatad Ecotourism Sites	23	11.30%
Kilangin or Bukal Falls	34	16.70%

Table 4 below presents composite mean on the level of sustainability. A composite mean of 3.92 was interpreted as "Highly Evident". Based on analysis, the creation of jobs as assessed by the residents contributed to the source of livelihood. The jobs created through ecotourism promote the adoption of alternative livelihood strategies for the locals. This confirms the study of Ravikumar et al. [16] that the local community perceives a positive economic impact on tourism, as ecotourism brings in new investment and creates new job opportunities. Apparently, the lowest composite mean of 2.98 obtained in relation to environment was

interpreted as “Evident”. This pertains to an indicator where ecotourism should implement sustainable practices like using solar panels, windmills and other renewable energy. The finding of the study contrasts with the study of [17], which revealed that the existence of sufficient solar and wind energy for the generation of electricity using photovoltaic systems and wind generators in meeting the energy demands was evident in the study site.

Table 4. Composite mean on level of sustainability

Variables	Mean	Std Dev	Interpretation ^a
Economic	3.92	0.79	Highly Evident
Socio-Cultural	3.64	0.8	Highly Evident
Environment	2.98	1.05	Evident

^a Legend: 1.00-1.50 Highly Evident, 1.51-2.50 Evident, 2.51-3.50 Not Evident, 3.51-4.00 Strongly Not Evident

Table 5 displays the ANOVA for significant difference among age groups with respect to level of sustainability on economic, socio-cultural, and environmental aspects assessed by the local residents. The results revealed that there were significant differences in the level of sustainability when the data was grouped according to age, which were indicated by the p-value of $0.000 < 0.05$ in terms of economic and environmental aspects, and $0.008 < 0.05$ in socio-cultural aspect. Various generations often possess different environmental values and approaches to consumption, which could account for the disparities observed. For instance, younger generations, who have been raised with a greater understanding of climate change, may have greater demands for environmental sustainability in ecotourism. Individual perceptions can vary greatly within a community, and multiple perspectives can coexist. This was supported by the study, which revealed that older participants spontaneously mentioned the aims and positive benefits of ecotourism for local communities, while young generations generically addressed the importance of fostering environmental education since environmental education program is being taught in school [18]. When different demographic groups views different ideas on what constitutes a sustainable ecotourism project, this can lead to conflict as each group tries to assert their own interests. Likewise, some locals might have experienced the benefits of successful ecotourism or witnessed the negative consequences of unsustainable practices. Significant differences were revealed when data were grouped according to gender. In the analysis, perspectives can greatly be influenced by personal experiences wherein men and women may encounter ecotourism differently, resulting in differing perspectives. Men may place more emphasis on the financial advantages, such as the creation of jobs and an increase in revenue and view this sector as important for regional growth. Women, on the other hand, may consider more extensive social and environmental factors, thereby revealing flaws in social consequences or environmental sustainability. Significant difference was revealed in relation to economics in terms of educational attainment. This denotes that educational attainment had a significant difference on how respondents assess the level of sustainability in terms of economic impact of ecotourism. Education can foster critical thinking skills, enabling individuals to evaluate and analyse information objectively. Educated residents may apply these skills when considering the economic impact of ecotourism, considering factors such as leakages, income distribution, and long-term sustainability. The findings on the level of sustainability are supported by the study of [2], which found that most residents who were interested in ecotourism were well educated and those not interested residents were not well educated. A significant difference exists in economic, sociocultural, and environmental impact where it obtained a p-value of $0.000 < 0.05$ when grouped according to location. It is interesting to recognize that individual perceptions can vary greatly within a community, and multiple perspectives can coexist. In terms of economics, residents' personal experiences with ecotourism can shape their perceptions wherein those who have directly benefited from ecotourism through employment, and increased income, may view sustainability positively. Conversely, residents who have witnessed negative consequences such as overpricing and increased living costs, may view sustainability as negatively. In terms of socio-cultural. some residents may prioritize the preservation of local traditions and community cohesion more than generating income. In relation to environment, people in some locations viewed sustainability with high importance, while at some locations they gave less value to

environmental conservation. This was supported by the result of the study of [19], which construed that the implementation of NES varies from one province to another. This may be caused by different perceptions and interpretations among tourism stakeholders in the local communities that can be influenced by several factors such as those related to political will and priorities of the leaders, culture among the people in the locality, awareness and dissemination, and ecotourism practices.

Table 5. Significant difference when grouped according to demographic profile as to level of sustainability

Variable	t/F-value	p-value	Interpretation
AGE			
Sustainability			
Economic	4.98	0	Significant
Socio-cultural	3.24	0.008	Significant
Environmental	6.27	0	Significant
CIVIL STATUS			
Sustainability			
Economic	1.78	0.076	Not Significant
Socio-cultural	0.85	0.394	Not Significant
Environmental	-1.5	0.134	Not Significant
GENDER			
Sustainability			
Economic	-2.89	0.004	Significant
Socio-cultural	-2.49	0.013	Significant
Environmental	-5.84	0	Significant
EDUCATIONAL ATTAINMENT			
Sustainability			
Economic	2.37	0.04	Significant
Socio-cultural	1.3	0.265	Not Significant
Environmental	0.95	0.447	Not Significant
LOCATION OF ECOTOURISM SITES			
Sustainability			
Economic	8.05	0	Significant
Socio-cultural	9.5	0	Significant
Environmental	55.43	0	Significant

5. Conclusions

The study revealed the following paradox manifested in ecotourism sites: First, the Education Paradox- the emphasis on education as a means to promote sustainable practices may have a downside, as the study revealed ecotourism sites failed to offer educational activities; Secondly, Location Paradox- the conflicting views on sustainable ecotourism among different demographics pose challenges for achieving genuine sustainability. The rise of ecotourism may lead to overtourism and strain local resources, raising the question of how to manage its success while ensuring long-term well-being. Addressing them requires a nuanced approach that acknowledges trade-offs, embraces diverse perspectives, and prioritizes long-term well-being over short-term gains. This involves understanding of the priorities of the local community, engaging them in the decision-making process, and adjusting strategies; and Thirdly, Progress Paradox-areas that depend heavily on tourism may place more importance on financial benefits than on protecting the environment, even if it harms the resources that attract tourists. Such paradox highlights the potential for ecotourism to attract

visitors, while also unintentionally compromising its environmental sustainability objectives if not properly controlled.

Author Contributions

MUR: Conceptualization, Data Curation, Methodology, Formal Analysis, Validation, Writing – original draft, Writing – review & editing.

Conflicts of interest

There are no conflicts to declare.

Acknowledgements

The author would like to thank Mapúa Malayan Colleges Laguna and Mr. Donn Enrique Moreno for the support of this research paper.

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