



Resource Conservation Strategies, Visitor Experience, and Satisfaction at Natural Parks in Bicol Region, Philippines

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How to cite this paper: Rebuya, N.R. and Meñez, M.L. (2024) Resource Conservation Strategies, Visitor Experience, and Satisfaction at Natural Parks in Bicol Region, Philippines. *Open Access Library Journal*, 11: e11863.

<https://doi.org/10.4236/oalib.1111863>

Received: June 24, 2024

Accepted: July 27, 2024

Published: July 30, 2024

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Abstract

The increasing popularity of natural parks as tourist destinations presents economic benefits but also environmental challenges, necessitating a balance between conservation and visitor experience. This study in the Bicol region, Philippines, examines the relationship among resource conservation strategies, visitor experience, and satisfaction at natural parks governed by the National Integrated Protected Areas System (NIPAS) Act. Utilizing a descriptive-correlational research design and stratified sampling technique to 327 respondents, key findings indicated that while visitors generally rate conservation efforts positively, there is a need to better integrate cultural preservation to enhance effectiveness. High levels of visitor experience, particularly in escapism and esthetic appreciation, suggest tranquil and visually appealing environments, with room for improvement in entertainment and educational offerings. Visitor satisfaction is generally high, especially regarding park attributes and facilities. Despite a weak correlation between resource conservation and visitor experience, cultural preservation significantly influences visitor satisfaction and perception of park attributes. Moreover, there is a notable link between enjoyment of entertainment and satisfaction with park services. Therefore, a holistic Resource Conservation Visitor Experience and Satisfaction (ResConVES) framework, integrating cultural, social, and physical conservation, is proposed to enhance visitor experience and satisfaction while balancing conservation goals.

Subject Areas

Environmental Sciences, Public Administration, Visitor Management

Keywords

Natural Park, Resource Conservation Strategies, Visitor Experience, Visitor

Satisfaction

1. Introduction

Natural parks have become significant global tourism attractions due to their scenic beauty and unique ecological features. However, the increasing demand for tourism in natural parks has led to various environmental, social, and economic impacts [1]. Studies suggest that tourism development in natural parks may increase risks of habitat degradation, soil erosion, and water pollution [2] [3]. Conversely, tourism can provide economic benefits, generating revenue and employment for local communities [4]. Sustainable management of tourism activities is essential to mitigate negative impacts and maximize positive outcomes [5]. Recently, conservation organizations have been focusing on resource conservation strategies to balance tourism development with environmental protection. These strategies can improve visitor experiences by fostering a sense of stewardship and increasing opportunities for education [6]. Furthermore, they can enhance visitor satisfaction by improving the quality of natural resources and reducing overcrowding [7].

Resource conservation strategies, visitor experience, and visitor satisfaction are crucial components of natural park management. Recent research has examined how these elements can be integrated into park management practices. Studies by Fefer *et al.* (2018) [8] and Rebuya (2020) [9] found that effective resource conservation strategies positively influence visitor experience and satisfaction in national parks. Alazaizeh *et al.* (2019) [10] suggested that visitor experience and satisfaction can be improved through effective communication of resource conservation efforts. Weber *et al.* (2019) [11] highlighted the importance of balancing resource conservation and visitor experience for sustainable park management. These studies demonstrate the relevance of considering resource conservation strategies, visitor experience, and visitor satisfaction in natural park management.

This study adopts theoretical bases for resource conservation strategies [9] [12], visitor experience [13] [14], and visitor satisfaction [15] in natural parks. Resource conservation strategies are essential for maintaining the ecological integrity of natural parks while allowing for sustainable visitor use and enjoyment. These strategies include environmental/biophysical conservation, cultural preservation, social conservation, and physical/behavioral conservation [9] [12]. Visitor experience in natural parks can be analyzed through four dimensions: entertainment, education, escapism, and esthetics [14] [16] [17]. Additionally, visitor satisfaction includes services, facilities, and attributes [15], such as customer service quality, availability of amenities, and natural features.

While much research has focused on visitor experience and satisfaction in natural parks, few studies have examined the relationship between resource conservation strategies and visitor satisfaction. Prior research indicates that

visitor satisfaction is influenced by factors such as natural beauty, recreational opportunities, and visitor services [18] [19]. However, there is a gap in understanding specific strategies that parks can use to protect resources while enhancing visitor experiences. Studies suggest a need for further research on the relationship between resource conservation strategies and visitor experience and satisfaction [9] [13] [20]-[22]. This research aims to address this gap by evaluating the relationship between resource conservation strategies on visitor experience and satisfaction in natural parks.

Ecotourism development in the natural parks of the Bicol region in the Philippines has gained traction but still faces challenges such as inadequate infrastructure, limited marketing, and insufficient management strategies. Balancing visitor experience and conservation remains a significant issue for park administrators. The natural parks in the Bicol region are governed by the National Integrated Protected Areas System (NIPAS) Act of 1992 and its amendments, and the E-NIPAS Act of 2018. These are Bicol Natural Park, Mount Isarog Natural Park, Mayon Volcano Natural Park, Bulusan Volcano Natural Park, and Bongsoy Natural Park.

This study is essential for evaluating resource conservation strategies in natural parks to maintain ecological integrity while providing a positive visitor experience. Understanding the relationship between these strategies and visitor satisfaction can lead to improved park management, increased visitation, and greater appreciation for protecting natural resources. Additionally, this study contributes to sustainable development goals (SDG 15), the International Union for Conservation of Nature Strategic Plan, the National Tourism Development Plan, and the monitoring of resource conservation and ecotourism management in Bicol's natural parks. The study aims to provide valuable insights to various stakeholders, including government agencies, conservation organizations, and policymakers.

Hence, this study evaluates the relationship between resource conservation strategies and visitor experience and satisfaction in Bicol's natural parks. It proposes a park management framework to improve resource conservation strategies and enhance visitor experiences. Specifically, it assesses resource conservation strategies (environmental/biophysical conservation, cultural preservation, social conservation, and physical/behavioral conservation) [9] [12], visitor experience (entertainment, educational, escapism, and esthetic) [13] [14] [16] [17], and visitor satisfaction (services, facilities, and attributes) [15]. Moreover, the study tests the relationships between resource conservation strategies and visitor experience, resource conservation strategies and visitor satisfaction, and visitor experience and satisfaction.

2. Materials and Methods

2.1. Research Design

This study used a descriptive-correlational research method to test the relation-

ships between resource conservation strategies, visitor experience, and visitor satisfaction at natural parks in the Bicol region. This method identifies relationships between variables through statistical analysis [23], providing numerical data to inform decisions and develop effective management strategies. It is particularly useful in understanding the correlation between visitor satisfaction and environmental factors in tourism and natural park research.

2.2. Participants of the Study

The study involved 327 local same-day visitors, aged 18 and above, at natural parks in the Bicol region, excluding those conducting research or scientific activities. Participants were selected using stratified sampling to ensure equal representation from each park and to compare different subgroups within the population [24].

2.3. Data Collection Instrument

To achieve the study's objectives, a survey questionnaire was used as the primary data collection tool. The questionnaire had three parts: resource conservation strategies, visitor experience, and visitor satisfaction in the Bicol region natural parks. Indicators were adapted from published research on these topics. For resource conservation strategies, Rebuya's (2020) [9] instrument was used, covering environmental, cultural, social, and physical conservation. The visitor experience was measured using a modified version of Rebuya's (2020) [13] questionnaire, based on Pine and Gilmore's "experience economy" concept, addressing entertainment, education, escapism, and esthetics. Visitor satisfaction was assessed using Moore *et al.*'s (2009) [15] survey, focusing on services, facilities, and attributes.

To ensure validity and reliability, the questionnaire underwent content validation by field experts, a pilot test with 30 park visitors, and a reliability test by the statistician from the Lyceum of the Philippines University-Batangas.

2.4. Data Gathering Procedure

Data gathering was conducted on-site in natural parks across the Bicol region. The process included obtaining approval from the park administration/management, administering surveys to on-site visitors, retrieving completed questionnaires, and interviewing key informants. Responses were then consolidated and validated for statistical analysis.

To ensure randomness and representativeness, surveys were administered at the exit area of each park, ensuring visitors completed their park experience before responding.

2.5. Data Analysis

This study used various statistical tools to analyze the data. Descriptive statistics (frequency, percentage, rank, and standard deviation) summarized the effec-

tiveness of resource conservation strategies, visitor experience, and visitor satisfaction. Weighted mean assessed the centrality of responses. Kolmogorov-Smirnov and Shapiro-Wilk tests checked the normality of variables. Mann-Whitney U Test evaluated the significant relationships between resource conservation strategies, visitor experience, and satisfaction. Spearman's rho measured the correlation between the effectiveness of resource conservation strategies and visitor experiences and satisfaction, indicating whether higher ratings of conservation strategies were linked to more positive experiences and higher satisfaction levels.

2.6. Ethical Consideration

In compliance with research ethical standards, the researcher adhered to Republic Act 10173 or the Data Privacy Act of 2012 during the entire implementation of the survey and data gathering. An informed consent was prepared and given to the respondents along with the survey questionnaire. This ensured their voluntary participation and confidentiality of data for research purposes only.

3. Results and Discussion

This part contains the results and discussions relating to the resource conservation strategies of natural parks, visitor experience, visitor satisfaction, and the relationship of resource conservation strategies to visitor experience, and visitor satisfaction in natural parks of Bicol region, Philippines.

3.1. Resource Conservation Strategies of Natural Parks

Table 1 presents the resource conservation strategies of natural parks in the Bicol region in terms of environmental/biophysical conservation. The composite mean of 4.23 indicates that they agreed in general.

Among the cited measures, addressing traffic congestion and managing air quality ranked highest with a mean score of 4.54, followed closely by collecting entrance fees to fund park management and conservation (mean = 4.52), installing directional signs to protect sensitive areas, establishing paths within permitted zones, and employing guides to educate on waste disposal and trail etiquette—all of which received a “Strongly Agree” interpretation.

This stresses the strong approval of traffic and air quality management strategies, highlighting visitors' concern for reducing congestion-related impacts like noise and emissions on their experience and the park's ecological health. Effective traffic control is seen as crucial for preserving pristine air quality and fostering a serene environment conducive to both enjoyment and wildlife protection. Similarly, the positive rating of entrance fees indicates recognition among visitors of the financial support needed for park upkeep and conservation efforts, reflecting perceived benefits in terms of enhanced facilities and conservation outcomes.

Table 1. Resource conservation strategies of natural parks in the Bicol Region in terms of environmental/biophysical conservation.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. installs directional signs to minimize the impact of visitors on sensitive areas.	4.52	Strongly Agree	3.5
2. installs steps, paths or trails within the permitted areas.	4.52	Strongly Agree	3.5
3. provides orientation to visitors on protecting the park.	4.51	Strongly Agree	6.5
4. provides educational campaigns on protecting the flora and fauna through flyers.	3.50	Agree	10
5. creates simple and easy-to-understand informational signs to prevent visitors from accidentally damaging sensitive areas or harming wildlife.	4.47	Agree	8
6. encourages visitors to visit during the off-season to avoid overcrowding so that animals and plants will be less stressed.	3.46	Moderately Agree	11
7. employs staff/tour guides to inform the importance of disposing of the waste properly and lead visitors to stay on the trail.	4.52	Strongly Agree	3.5
8. builds infrastructure which minimize the impact on the landscape.	4.51	Strongly Agree	6.5
9. collects entrance fees to provide much-needed funding for park management and conservation activities.	4.52	Strongly Agree	3.5
10. prohibits visitors from using the impacted sites to rehabilitate/restore the natural balance of the ecosystem.	3.51	Agree	9
11. helps reduce traffic congestion and protects the park's air quality.	4.54	Strongly Agree	1
Composite Mean	4.23	Agree	

Legend: 4.50 - 5.00 = Strongly Agree; 3.50 - 4.49 = Agree; 2.50 - 3.49 = Moderately Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree.

The favorable response towards traffic management aligns with studies emphasizing its role in enhancing visitor satisfaction by mitigating noise and emissions, improving safety, and maintaining the natural ambiance visitors seek [25] [26]. However, initiatives such as using clear signage to prevent damage to sensitive areas (mean = 4.47), prohibiting visitor use of impacted sites for ecosystem restoration (mean = 3.51), and educational campaigns on flora and fauna protection (mean = 3.50) received lower but still positive ratings. Encouraging off-season visits to alleviate stress on wildlife and habitats received the lowest mean of 3.46, indicating moderate agreement.

The moderate agreement on promoting off-season visits suggests that while visitors may acknowledge the conservation benefits of spreading out visitation, practical considerations or personal preferences may influence their timing choices. This finding is supported by research discussing the challenge of balancing visitor flows for conservation and visitor experience [6] [13]. Fixed travel patterns, vacation times, weather conditions, and personal schedules likely influence visitor decisions, contributing to this moderate level of agreement.

Table 2 shows the resource conservation strategies of natural parks in the Bicol region in terms of cultural preservation. The composite mean across all indicators stands at 3.11, reflecting a general tendency towards moderate agreement among visitors.

Table 2. Resource conservation strategies of natural parks in the Bicol Region in terms of cultural preservation.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. promotes local customs and traditions to better understand and appreciate the culture.	3.51	Agree	1.5
2. presents live cultural performances to promote cultural understanding and appreciation.	2.49	Disagree	5
3. promotes/sells local crafts which reflect the history, traditions, and values of the local community.	3.49	Moderately Agree	3
4. offers local cuisine to keep local practices alive and vibrant.	3.51	Agree	1.5
5. allows resident-visitor interaction for better cultural understanding through local performances and craftsmanship.	2.52	Moderately Agree	4
Composite Mean	3.11	Moderately Agree	

Legend: 4.50 - 5.00 = Strongly Agree; 3.50 - 4.49 = Agree; 2.50 - 3.49 = Moderately Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree.

Among the five indicators, two strategies tied for the highest level of agreement, each with a mean score of 3.51. These strategies focus on promoting local customs and traditions to deepen visitors' understanding and appreciation of culture and offering local cuisine to preserve and enliven local practices.

These results highlight the strong endorsement of strategies promoting local customs and cuisine among respondents. The emphasis on cultural immersion through customs and traditions stresses their perceived value in enriching visitor experiences and fostering connections to the community. Similarly, the popularity of local cuisine reflects its role not only in preserving cultural practices but also in enhancing visitor enjoyment and cultural engagement.

In the context of natural park management and visitor satisfaction, these findings align with literature emphasizing the integration of cultural elements into conservation efforts. Research indicates that incorporating cultural heritage can enhance visitor satisfaction by offering a more comprehensive experience that appeals to both ecological and cultural interests [27]. This approach supports responsible tourism principles by promoting respect for local cultures and fostering sustainable visitor behaviors [28] [29].

Slightly lower in agreement, with a mean of 3.49, is the strategy promoting and selling local crafts that reflect community history and values, indicating moderate support. The strategy facilitating resident-visitor interaction through local performances and craftsmanship received a tepid response, with a mean of 2.52, suggesting moderate agreement. In contrast, presenting live cultural performances to promote understanding and appreciation received the least agreement, with a mean of 2.49, indicating disagreement among respondents.

The low agreement regarding live cultural performances suggests a disconnect between visitor expectations and the perceived value or delivery of such performances within natural park settings. This finding resonates with challenges documented in heritage tourism literature, where staged authenticity and commercialization can diminish the educational and cultural significance of performances [30] [31]. Moreover, natural park environments may not always align with expectations for cultural performances, which are often associated with tranquil natural experiences [32].

Table 3 presents the resource conservation strategies of natural parks in the Bicol region in terms of social conservation with a composite mean of 4.17, falling into the verbal interpretation of “agree”.

Table 3. Resource conservation strategies of natural parks in the Bicol Region in terms of social conservation.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. show cases local performances to maintain cultural values and identity of the community.	3.52	Agree	3
2. treats guest with care and empathy.	4.45	Agree	2
3. provides friendly service to park visitors to encourage re-visit.	4.56	Strongly Agree	1
Composite Mean	4.17	Agree	

Legend: 4.50 - 5.00 = Strongly Agree; 3.50 - 4.49 = Agree; 2.50 - 3.49 = Moderately Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree.

The highest-rated strategy, with a mean of 4.56, involves providing friendly service to park visitors to encourage return visits, which received strong agreement. This highlights visitors' emphasis on positive social interactions within parks, highlighting the role of staff hospitality in enhancing satisfaction and fostering repeat visits. This approach not only supports visitor enjoyment but also contributes to a welcoming atmosphere crucial for sustainable park management and conservation efforts [33] [34] [35].

Similarly, the strategy focusing on treating guests with empathy and care, scoring 4.45, also garnered significant support. This reflects the importance visitors place on emotional connections during their park experiences, influencing perceptions and the likelihood of revisits. Integrating such social dimensions into conservation strategies is recognized as pivotal for enhancing visitor engagement and fostering a conservation-oriented culture [35].

In contrast, the strategy showcasing local performances to maintain cultural values and identity received a lower rating of 3.52, indicating moderate agreement among visitors. While cultural performances are valued for preserving heritage, they may not significantly impact visitor satisfaction or revisit intentions compared to strategies emphasizing interpersonal interactions and emo-

tional engagement. This suggests a potential for enhancing the visibility and relevance of cultural showcases to better align with visitor expectations and conservation education goals [36] [37] [38].

The prioritization of direct social interactions over cultural education in visitor ratings indicates the need for integrated approaches that effectively communicate conservation messages while enhancing visitor experience and support for park conservation initiatives.

Table 4 reveals the visitors' rating under physical/behavioral conservation of resource conservation strategies of natural parks in Bicol which gained an overall composite mean of 3.91 interpreted as "agree".

Table 4. Resource conservation strategies of natural parks in the Bicol Region in terms of physical/behavioral conservation.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. encourages the use of other recreational areas within the park to avoid social congestion and enhance visitor experience.	3.50	Agree	4
2. conducts proper demonstrations on the use of equipment and tools to prevent injuries to the guest and damage to the park.	3.50	Agree	4
3. provides resting areas like sheds or benches for visitors' comfort and relaxation.	4.50	Strongly Agree	2
4. creates interesting activities for visitors during the low season.	3.50	Agree	4
5. installs signages to strategic places on rules and regulations of the park and reinforce them through tour guides/park rangers.	4.53	Strongly Agree	1
Composite Mean	3.91	Agree	

Legend: 4.50 - 5.00 = Strongly Agree; 3.50 - 4.49 = Agree; 2.50 - 3.49 = Moderately Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree.

The highest-rated strategy, with a mean of 4.53, involves installing signage at strategic locations to communicate park rules and reinforcing them through tour guides or park rangers, which received strong agreement from visitors. This implies the importance visitors place on clear guidance and enforcement of park regulations for both safety and environmental protection. Research supports that effective signage and enforcement by personnel can influence visitor behavior positively, ensuring responsible environmental practices [22] [39] [40].

Similarly, the strategy of providing resting areas like sheds or benches, scoring 4.50, also received strong agreement. This reflects visitors' appreciation for amenities that enhance comfort and relaxation during their park visits, contributing to general satisfaction and enjoyment.

In contrast, strategies encouraging the use of alternative recreational areas

within the park to reduce congestion, conducting demonstrations on equipment used to prevent injuries and park damage, and creating activities during low seasons all received a mean score of 3.50, indicating moderate agreement among visitors. While visitors recognize the potential effectiveness of these strategies, they do not prioritize them as highly as those related to signage and resting areas. This moderate consensus suggests room for improvement in promoting these strategies to better align with visitor expectations and enhance their perceived value and effectiveness [41]-[43].

Generally, these findings highlight visitors' preferences for strategies that provide immediate benefits to their experience and park safety, emphasizing the need for clear communication and comfort amenities while suggesting opportunities for enhancing the implementation and visibility of other conservation strategies within natural parks.

Table 5 displays the summary of the resource conservation strategies of natural parks in the Bicol region. The total composite mean for all the variables stands at 3.85, which falls under the "Agree" category, reflecting a general agreement that the strategies for resource conservation are satisfactory among the respondents.

Table 5. Summary on the resource conservation strategies of natural parks in the Bicol Region.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Environmental/Biophysical Conservation	4.23	Agree	1
2. Cultural Preservation	3.11	Moderately Agree	4
3. Social Conservation	4.17	Agree	2
4. Physical/Behavioral Conservation	3.91	Agree	3
Composite Mean	3.85	Agree	

Legend: 4.50 - 5.00 = Strongly Agree; 3.50 - 4.49 = Agree; 2.50 - 3.49 = Moderately Agree; 1.50 - 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree.

In general, this implies that the resource conservation strategies are perceived positively, yet there may be room for improvement, particularly in cultural preservation. The highest-ranked variable is environmental/biophysical conservation with a weighted mean of 4.23, which corresponds to an "Agree" verbal interpretation, suggesting that respondents are in agreement that this aspect is effectively addressed in the region's natural parks. This is the top priority based on the given data, indicating that environmental and biophysical aspects of conservation are well-regarded. Following this, social conservation is ranked second with a weighted mean of 4.17 and also receives an "Agree" in verbal interpretation. This indicates that the strategies pertaining to the social aspects of resource conservation are also agreed upon by the respondents as being effectively implemented. Physical/behavioral conservation comes in third with a weighted mean

of 3.91. It, too, is associated with an “Agree” verbal interpretation, denoting that there is a positive response toward the physical and behavioral conservation efforts in the parks.

Environmental/biophysical conservation is considered the most effectively addressed aspect of resource conservation in the Bicol Region’s natural parks. This aligns with the literature that emphasizes the critical importance of conserving environmental and biophysical aspects within protected areas to maintain biodiversity and ecosystem services [44]. The “Agree” verbal interpretation across this and other variables suggests that the existing strategies are resonating well with the stakeholders or respondents. The second rank for social conservation reflects a recognition, as supported by studies, of the vital role communities play in successful conservation efforts [45]. The importance of community engagement in resource management is essential for sustaining conservation initiatives over the long term [46]. The third-ranked physical/behavioral conservation implies that while there is positive recognition of the physical upkeep and behavior-guiding measures in place, there might be a gap compared to environmental and social strategies, which could be due to less visible immediate benefits or more challenging implementation [47].

On the contrary, cultural preservation has the lowest rank among the variables with a weighted mean of 3.11 and a verbal interpretation of “Moderately Agree.” This suggests that while there is some level of agreement on the effectiveness of cultural preservation strategies, it is notably less compared to the other aspects of conservation and resource protection.

Cultural preservation, is the lowest among the four variables, suggesting that while there is moderate agreement on its effectiveness, it may not be as robust as the other aspects. This could be indicative of a global challenge where cultural aspects often receive less attention in conservation programs [48]. Generally, it reflects an overarching agreement with the resource conservation strategies, yet the distinction scores indicate specific areas where management could focus on improvements, particularly in integrating cultural dimensions more effectively into conservation practices, which has been shown to enhance visitor experience and support for protected areas [28].

3.2. Visitor Experience in Natural Parks

Table 6 illustrates the visitors’ experience in natural parks of the Bicol region as to entertainment. The visitor entertainment experiences at natural parks were rated very good for a composite mean of 3.75.

The highest-rated activities, both receiving an “Excellent” rating with a mean of 4.50, are water-based activities such as rafting, aqua cycling, and kayaking, and the enjoyment of souvenirs and local delicacies. These ratings highlight their pivotal role in enhancing visitor experiences by offering adventurous recreation and cultural immersion. Water-based activities are valued for their ability to provide both relaxation and adventure, aligning with visitors’ desires for na-

ture-based leisure [49] [50]. Likewise, the appreciation for local souvenirs and delicacies reflects tourists' increasing interest in authentic cultural experiences and supports local economies [29] [51].

Table 6. Visitor experience in natural parks of the the Bicol Region as to entertainment experience.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. enjoys water-based activities like rafting/aqua-cycling/canoeing/kayaking/boating/swimming/scuba diving, etc.	4.50	Excellent	1.5
2. enjoys trekking/volcaneeing/camping/birdwatching/atv rides/sightseeing, etc.	4.49	Very Good	3
3. appreciates the live cultural shows at the park.	2.01	Fair	6
4. is happy with the local arts and photographs of exotic animals and plants.	3.51	Very Good	5
5. was entertained by the performance of the park guides through dancing and singing and how they deliver their spiel while touring.	3.52	Very Good	4
6. enjoys souvenirs and local delicacies for pasalubong.	4.50	Excellent	1.5
Composite Mean	3.75	Very Good	

Legend: 4.50 - 5.00 = Excellent; 3.50 - 4.49 = Very Good; 2.50 - 3.49 = Good; 1.50 - 2.49 = Fair; 1.00 - 1.49 = Poor.

In contrast, park-guided performances, featuring dancing and singing, and exhibitions of local arts and photographs of wildlife, both received a "Very Good" rating, scoring 3.52 and 3.51, respectively, placing them fourth and fifth. However, live cultural shows at the park were rated significantly lower at "Fair" with a mean of 2.01, ranking last. This suggests that while visitors appreciate cultural elements, live performances may not align well with their primary expectations of outdoor and nature-focused experiences in natural park settings. Issues such as authenticity, scheduling, and relevance to local culture and environment could impact their appeal and satisfaction [52] [53].

Understanding these preferences emphasizes the importance of aligning park offerings with visitor motivations to enhance overall satisfaction and engagement.

Table 7 presents the educational experience of visitors in natural parks of the Bicol region, with a composite mean of 3.70, suggesting a "Very Good" educational experience for visitors in general.

The top-ranked indicator, where visitors gain knowledge through information boards, achieved an "Excellent" rating with a mean of 4.52, indicating their effectiveness in conveying park-related information. This suggests that these boards are strategically placed and contain relevant, understandable content that enhances visitor knowledge and appreciation of the park's resources. The sec-

ond-ranked indicator, visitor awareness of park facilities and accessibility information, also received an “Excellent” rating with a mean of 4.50, highlighting its role in providing essential visitor information. In contrast, the indicator for interactions with park rangers and tour guides, which provide historical and ecological insights, received a “Very Good” rating with a mean of 3.51.

Table 7. Visitor experience in natural parks of the Bicol Region as to educational experience.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. gains knowledge through information boards.	4.52	Excellent	1
2. was impressed by the information provided by park rangers and tour guides regarding the facts, lore, and stories surrounding the history of the natural parks.	3.51	Very Good	3
3. were made aware of the facilities, services, and information regarding accessibility.	4.50	Excellent	2
4. got the chance to interact with the community and the environment.	3.50	Very Good	4
5. has given the chance to explore local customs including farming, hunting, and traditional cookery.	2.48	Fair	5
Composite Mean	3.70	Very Good	

Legend: 4.50 - 5.00 = Excellent; 3.50 - 4.49 = Very Good; 2.50 - 3.49 = Good; 1.50 - 2.49 = Fair; 1.00 - 1.49 = Poor.

These findings underline the critical role of educational resources and accessibility information in enhancing visitor experience and satisfaction at natural parks in the Bicol Region. The high ratings for information boards reflect their effectiveness in environmental education and visitor engagement with conservation efforts [54] [55]. Conversely, the lower-rated indicator, allowing visitors to explore local customs like farming and traditional cookery, received a “Fair” rating with a mean of 2.48. This suggests that these activities were less satisfactory compared to other educational experiences within the park, indicating a need for improvement in their integration and presentation to better meet visitor expectations [56] [57].

Understanding and addressing these factors are crucial for park managers to enhance visitor engagement and satisfaction regarding local customs and practices, ensuring that cultural activities are relevant, accessible, and effectively integrated into the whole park experience.

Table 8 discloses the escapism experience of visitors in the natural parks of the Bicol region. The composite mean along this aspect stood at 4.48, falling under the “Very Good” verbal interpretation category.

The escapism experience of visitors in the Bicol Region’s natural parks highlights their appreciation for tranquility and serenity, rated highest with a mean of 4.50 and an “Excellent” interpretation. This reflects visitors’ strong desire to find peace away from urban environments and connect with nature. The oppor-

tunity to escape urban life followed closely with a “Very Good” rating and a mean of 4.48, emphasizing its importance in the visitor experience. Similarly, breathing fresh air and experiencing the novelty of being in a new place were both rated “Very Good” at 4.47, contributing significantly to visitors’ sense of escape and exploration.

Table 8. Visitors experience in natural parks of the Bicol Region as to escapism experience.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. experience the tranquility and serenity of the place.	4.50	Excellent	1
2. had the opportunity to experience being stranger in the place.	4.47	Very Good	3.5
3. had the opportunity to stay away from urban life.	4.48	Very Good	2
4. experience the breath of fresh air.	4.47	Very Good	3.5
Composite Mean	4.48	Very Good	

Legend: 4.50 - 5.00 = Excellent; 3.50 - 4.49 = Very Good; 2.50 - 3.49 = Good; 1.50 - 2.49 = Fair; 1.00 - 1.49 = Poor.

These findings align with research on the psychological benefits of natural environments, emphasizing their role as restorative settings [58]. Tranquility and serenity in natural parks provide visitors with a break from urban stressors, promoting mental well-being and relaxation. The opportunity to breathe fresh air and explore new surroundings also contributes to this experience, supporting the notion that natural settings offer therapeutic benefits by reducing stress and fostering a sense of novelty and rejuvenation [59] [60]. Thus, these aspects contribute significantly to visitor satisfaction and overall well-being within natural parks, enhancing their appeal as destinations for escapism and rejuvenation.

Table 9 shows the visitor experience in natural parks of the Bicol region as to esthetic experience, which falls under the very good category with a 4.24 composite mean.

Table 9. Visitor experience in natural parks of Bicol Region as to esthetic experience.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. experience the natural beauty of nature (e.g., river, lake, waterfall, mountain, volcano, etc.).	4.49	Very Good	2.5
2. experience the organized flow of tour itinerary/activity.	3.48	Good	4
3. experience the eco-inspired structures like cottages, benches, toilets, souvenir shops, and others.	4.50	Excellent	1
4. experience the harmony of nature.	4.49	Very Good	2.5
Composite Mean	4.24	Very Good	

Legend: 4.50 - 5.00 = Excellent; 3.50 - 4.49 = Very Good; 2.50 - 3.49 = Good; 1.50 - 2.49 = Fair; 1.00 - 1.49 = Poor.

The study's findings highlight visitors' high regard for eco-inspired structures, such as cottages and facilities, which received an "Excellent" rating with a mean of 4.50, indicating their integral role in enhancing visitor comfort and convenience without detracting from the natural beauty of the parks. Tied for the second rank with a mean of 4.49 and a "Very Good" interpretation were the experiences of the natural beauty and harmony of nature. This reflects visitors' strong appreciation for the aesthetic appeal and cohesive environment created by the parks' natural elements.

These results are supported by environmental psychology and tourism studies emphasizing the importance of both facility quality and natural aesthetics in visitor satisfaction. Eco-friendly structures are seen as enhancing visitor experiences by seamlessly integrating with the environment [61]. Similarly, the positive rating for natural beauty aligns with theories on the restorative effects of nature, indicating people's inherent preference for environments that offer coherence and opportunities for exploration [62].

Conversely, the organized flow of tour itineraries and activities received a "Good" rating with a mean of 3.48, indicating it was the least impactful aspect of visitor satisfaction. While satisfactory, this result suggests that logistical organization, while important, may not significantly enhance the intrinsic value of the park experience as much as environmental and aesthetic factors do [63]. This finding stresses the potential for park managers to innovate and improve tour activities to match the high standards set by the parks' natural and constructed environments, thereby enhancing total visitor satisfaction.

Table 10 displays the summary of the result on visitor experience at natural parks in the Bicol region, where the general composite mean was 4.05 interpreted as "Very Good."

Table 10. Summary on visitor experience at natural parks in the Bicol Region.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Entertainment Experience	3.75	Very Good	3
2. Educational Experience	3.70	Very Good	4
3. Escapism Experience	4.48	Very Good	1
4. Esthetic Experience	4.24	Very Good	2
Composite Mean	4.05	Very Good	

Legend: 4.50 - 5.00 = Excellent; 3.50 - 4.49 = Very Good; 2.50 - 3.49 = Good; 1.50 - 2.49 = Fair; 1.00 - 1.49 = Poor.

Results showed that escapism experience was ranked first with a weighted mean of 4.48, esthetic experience was second with a weighted mean of 4.24, entertainment experience was third with a weighted mean of 3.75, and educational experience was fourth with a weighted mean of 3.70. All variables were categorized with the verbal interpretation of "Very Good."

The findings from the summary of the visitor experience in the Bicol Region's

natural parks reflect a high level of satisfaction across various aspects of the parks. With all dimensions of experience receiving a “Very Good” verbal interpretation, it suggests that the parks are well-regarded for providing enriching and fulfilling experiences to visitors. The highest ranking for escapism experience indicates that the parks are particularly valued as places where visitors can disconnect from their daily lives and immerse themselves in nature. This might be due to the tranquil and pristine environments the parks offer, allowing visitors to seek solace and respite in natural settings. Esthetic experience ranking second emphasizes the visual and sensory appeal of the parks. This suggests that visitors are also highly appreciative of the eco-inspired structures and natural beauty, which includes the landscape, flora, and fauna of the region, contributing significantly to their overall experience. The third-ranked entertainment, though still “Very Good,” implies that while the recreational activities are enjoyed, they may not be as impactful as the natural esthetics or the opportunity for escapism. This could indicate an area where further enhancements could enrich visitor engagement and satisfaction. Educational experience ranked fourth still “Very Good,” indicates that the educational offerings, such as exploration of the local customs, are slightly less impactful compared to the other experiences. Enhancing interpretive and educational programs could therefore be an opportunity to elevate the visitor experience further. Generally, the findings suggest that the parks succeed in providing a well-rounded experience that meets the diverse needs and expectations of visitors. However, the slightly lower rankings for entertainment and educational experiences may offer insights for park management to identify potential areas for improvement and investment.

The high experience levels in the natural parks are consistent with the literature on the psychological benefits of nature. Escapism, which was rated the highest, aligns with the concept of nature as a refuge for mental recovery and stress relief [64]. The importance of esthetic experience is supported by the Attention Restoration Theory, suggesting that natural beauty aids cognitive restoration [65]. However, the relatively lower ratings for entertainment and educational experiences suggest room for improvement. These findings could indicate a need for diversifying recreational activities and enhancing educational content to cater to a broader range of interests, as supported by the Recreational Opportunity Spectrum [66] and the educational role of natural sites. In general, while the parks provide a positive visitor experience, focusing on the lesser-rated areas could lead to even higher visitor satisfaction and broader educational impacts.

3.3. Visitor Satisfaction in Natural Parks

Table 11 presents the visitor satisfaction at natural parks in the Bicol region relative to services, with a composite mean of 3.67, verbally interpreted as “Satisfied”.

The survey results show that visitors highly appreciate the rangers and tour guides who provide insightful information about the natural park, earning a

“Highly Satisfied” rating with a mean of 4.55. Similarly, visitors are equally pleased with the friendly and responsive demeanor of the staff and rangers, also rated “Highly Satisfied” with a mean of 4.54. Clear guidelines regarding visitor safety and security are also highly valued, sharing the same “Highly Satisfied” rating with a mean of 4.54.

Table 11. Visitor satisfaction at natural parks in the Bicol Region relative to services.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. is easy to obtain information through online platform and government websites like DENR-PAMB (Protected Area Management Board), provincial tourism office, and local tourist information centers.	3.48	Somewhat Satisfied	5
2. staff and rangers are friendly, accommodating, and responsive.	4.54	Highly Satisfied	2.5
3. rangers and tour guides provide interesting information about the natural park.	4.55	Highly Satisfied	1
4. provides understandable visitor guides and maps.	2.50	Somewhat Satisfied	7
5. provides useful information about the plants and animals.	3.54	Satisfied	4
6. has clear guidelines about visitor safety and security.	4.54	Highly Satisfied	2.5
7. has provisions for people with disability and senior citizens.	2.56	Somewhat Satisfied	6
Composite Mean	3.67	Satisfied	

Legend: 4.50 - 5.00 = Highly Satisfied; 3.50 - 4.49 = Satisfied; 2.50 - 3.49 = Somewhat Satisfied; 1.50 - 2.49 = Less Satisfied; 1.00 - 1.49 = Not Satisfied.

These “highly satisfied” ratings mean the significance of personalized interactions and safety assurances in enhancing visitor experiences at the natural parks in the Bicol Region. The positive feedback regarding ranger and guide interactions suggests that informative and engaging tours contribute significantly to visitor satisfaction [67] [68]. Likewise, the emphasis on friendly and responsive staff aligns with research highlighting the pivotal role of staff demeanor in shaping positive visitor perceptions [68]. Moreover, the high ratings for safety guidelines reflect the importance visitors place on feeling secure during their park visits [69].

In contrast, satisfaction with obtaining information through online platforms and government websites like DENR-PAMB is moderate, rated as “Somewhat Satisfied” with a mean of 3.48. Services tailored for people with disabilities and senior citizens receive lower satisfaction ratings, averaging 2.56 and also rated “Somewhat Satisfied,” indicating areas for improvement. Lastly, the provision of understandable visitor guides and maps is rated the lowest at 2.50, also “Some-

what Satisfied.”

These findings suggest overall contentment with park services but highlight opportunities for enhancement, particularly in digital information accessibility, inclusivity for diverse visitor needs, and the clarity of educational materials. Improving these areas could further elevate visitor satisfaction and contribute to more inclusive and engaging experiences within the natural parks [70]-[72].

Table 12 reveals the visitor satisfaction relative to facilities at natural parks in the Bicol region. The composite mean of all facilities is 4.01, indicating an overall satisfaction level of “Satisfied” among visitors.

Table 12. Visitor satisfaction at natural parks in the Bicol Region relative to facilities.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. has useful directional road signs going to and inside the park.	4.52	Highly Satisfied	1
2. has several toilets within the area.	2.51	Somewhat Satisfied	6
3. has clean toilet facility.	3.54	Somewhat Satisfied	5
4. has designated picnic area.	4.50	Highly Satisfied	3
5. has serviceable road networks.	4.45	Satisfied	4
6. has designated walking tracks/trails.	4.51	Highly Satisfied	2
Composite Mean	4.01	Satisfied	

Legend: 4.50 - 5.00 = Highly Satisfied; 3.50 - 4.49 = Satisfied; 2.50 - 3.49 = Somewhat Satisfied; 1.50 - 2.49 = Less Satisfied; 1.00 - 1.49 = Not Satisfied.

The survey findings on visitor satisfaction with facilities in the Bicol Region’s natural parks highlight key areas of high approval. Directional road signs lead the rankings with a mean of 4.52, earning a “Highly Satisfied” rating, indicating visitors greatly appreciate the ease of navigation they provide. Similarly, designated walking tracks/trails are also highly praised with a mean of 4.51, reinforcing their role in safe and enjoyable park exploration. Designated picnic areas follow closely with a mean of 4.50, contributing significantly to visitor comfort and socialization within the park setting.

These findings indicate the importance of well-planned facilities in enhancing visitor experiences in natural parks. Directional signage’s top satisfaction rating reflects its critical role in guiding visitors and minimizing their impact on sensitive areas, aligning with park strategies for environmental conservation [73] [74]. Likewise, the satisfaction with walking tracks and trails supports their function in providing safe and sustainable access to natural beauty [75]. Picnic areas’ high rating indicates their value in providing designated spaces for relaxation and social interaction, essential elements of visitor enjoyment [76] [77].

In contrast, road networks within the park receive a satisfactory mean of 4.45, reflecting their functional role in facilitating park access. However, visitor satisfaction is somewhat lower with the cleanliness of toilet facilities (mean 3.54) and the availability of toilets (mean 2.51), both rated as “Somewhat Satisfied.”

The satisfaction levels regarding toilet facilities suggest opportunities for improvement. While basic needs are met, cleanliness issues and insufficient availability may detract from visitor comfort and satisfaction [78]. Clean and accessible toilets are crucial for maintaining park cleanliness perceptions and enhancing visitor comfort, which are integral to the overall park experience. Park management can use this feedback to prioritize improvements in these areas to meet visitor expectations more consistently and elevate overall satisfaction levels.

Table 13 presents the results on visitor satisfaction towards attributes of natural parks in the Bicol region which gained a composite mean of 4.01, generally interpreted as “Satisfied”.

Table 13. Visitor satisfaction at natural parks in the Bicol Region relative to attributes.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. enjoyed the natural beauty of the place (e.g., river, lake, waterfall, mountain, volcano, etc.).	4.49	Highly Satisfied	3
2. enjoyed the presence of native plants and animals.	4.54	Highly Satisfied	1
3. enjoyed the clear and refreshing running waters.	4.46	Satisfied	4.5
4. are happy with varied activities available in the park.	4.46	Satisfied	4.5
5. felt secure and safe within the park.	3.48	Somewhat Satisfied	6
6. enjoyed the presence of a few visitors in the park.	4.52	Highly Satisfied	2
Composite Mean	4.01	Satisfied	

Legend: 4.50 - 5.00 = Highly Satisfied; 3.50 - 4.49 = Satisfied; 2.50 - 3.49 = Somewhat Satisfied; 1.50 - 2.49 = Less Satisfied; 1.00 - 1.49 = Not Satisfied.

The survey findings highlight high visitor satisfaction with specific aspects of the Bicol Region’s natural parks. Enjoyment of the park’s native plants and animals received a “Highly Satisfied” rating with a mean of 4.54, indicating visitors greatly value the preservation of biodiversity and ecological integrity. Similarly, satisfaction with the park’s solitude due to fewer visitors was also “Highly Satisfied” with a mean of 4.52, reflecting a preference for tranquil, less crowded experiences in natural settings. Additionally, visitors expressed high satisfaction with the park’s natural beauty, including its rivers, lakes, waterfalls, and mountains, which earned a “Highly Satisfied” rating with a mean of 4.49.

These findings highlight the importance visitors place on ecological integrity, solitude, and scenic beauty in their park experiences. The presence of native flora and fauna and the appeal of less crowded environments align with biophilic principles and the psychological benefits of nature immersion [79] [80]. Additionally, the aesthetic appreciation of natural landscapes contributes to visitor satisfaction and supports theories of attention restoration and scenic beauty [66]. However, satisfaction with the clarity and refreshing nature of park waters, along with the variety of available activities, was rated as “Satisfied” with identi-

cal means of 4.46. Conversely, visitors expressed lower satisfaction with the sense of security and safety within the park, rating it as “Somewhat Satisfied” with a mean of 3.48.

The positive ratings for water quality and recreational opportunities indicate that these features meet visitor expectations for enjoyment and engagement in natural environments [81] [82]. Addressing concerns about park security is crucial to enhancing visitor confidence and ensuring a more fulfilling experience [83]. Park management can focus on improving safety measures and communication to further elevate visitor satisfaction and encourage repeat visits.

Table 14 shows the summary of visitor satisfaction in natural parks of the Bicol region which earned a composite mean of 4.00, verbally interpreted as “Satisfied”.

Table 14. Summary on visitor satisfaction in natural parks of Bicol Region.

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Services	3.67	Satisfied	3
2. Facilities	4.01	Satisfied	2
3. Attributes	4.33	Satisfied	1
Composite Mean	4.00	Satisfied	

Legend: 4.50 - 5.00 = Highly Satisfied; 3.50 - 4.49 = Satisfied; 2.50 - 3.49 = Somewhat Satisfied; 1.50 - 2.49 = Less Satisfied; 1.00 - 1.49 = Not Satisfied.

The attributes of the natural park received the highest level of visitor satisfaction, with a weighted mean of 4.33, earning a “Satisfied” verbal interpretation and ranking first among the categories. Facilities within the park followed closely, also achieving a “Satisfied” rating with a weighted mean of 4.01 and taking the second rank. Services offered in the park, while still rated as “Satisfied”, had a slightly lower weighted mean of 3.67, positioning them in third place.

The result indicates that visitors to the natural park generally have a positive perception of the park’s attributes, facilities, and services. The highest satisfaction is with the park’s natural attributes, such as its landscapes, flora, and fauna, which suggests that these are well-maintained or have met or exceeded visitors’ expectations. The facilities, which may include physical structures and amenities like restrooms, picnic areas, and trails, also receive a strong satisfaction rating, indicating that they are adequate and enhance the visitor experience. Services, which could encompass educational programs, while still rated positively, have a lower satisfaction score compared to facilities and attributes. This could imply that while the services are generally good, there may be more noticeable room for improvement in this area, or that visitors have higher expectations for services that are not fully met. To sum up, the park seems to be well-regarded by visitors, but continuous improvement in services could potentially elevate the overall visitor experience. The ranking suggests that while all aspects are satisfactory, focusing on services may provide the greatest opportunity for enhancing

visitor satisfaction.

In natural park management, visitor satisfaction is often used as an indicator of service quality and park performance. According to Vasiljević *et al.* (2023) [84], attributes such as natural beauty and conservation efforts can significantly enhance visitor satisfaction, which aligns with the high satisfaction ratings observed for the natural attributes in the given study. Facilities often follow closely in importance, as confirmed by literature like that from Irfan and Dinitri (2021) [85], which emphasizes that the quality and adequacy of facilities such as trails and restrooms are crucial for visitor satisfaction. This is reflected in the positive satisfaction rating for facilities in the study, indicating they are well-received and contribute to the overall positive experience. However, services provided by the park, which include educational content, accessibility to information, and provision of facilities for special groups such as persons with disability, while rated satisfactory, rank lower in satisfaction compared to facilities and attributes. This could suggest that while tangible aspects of the park are meeting expectations, there is an opportunity to enhance intangible services. Lastly, the composite mean being a solid “Satisfied” implies that visitors generally view the park favorably. It implies that while there may be room for improvement, the park’s performance across various dimensions is strong, which is in line with the literature that suggests a multi-faceted approach to understanding and improving visitor satisfaction [86].

3.4. Relationship between Resource Conservation Strategies and Visitor Experience in Natural Parks of Bicol Region

Table 15 displays the association between resource conservation strategies and visitor experience in natural parks. It was noticed that the computed r-values indicate almost negligible direct/indirect correlation, however, only cultural preservation and educational experience show a significant relationship. This was observed since the obtained p-value was less than the alpha level which is a p-value of 0.021.

The data suggests that, in general, there is a very weak or negligible correlation between the resource conservation strategies employed in natural parks of the Bicol region and the overall visitor experience. This implies that the protective measures in place may not have a direct or noticeable impact on how visitors perceive their experience in the parks. However, the exception to this trend is the relationship between cultural preservation efforts and the educational experience of visitors, which is statistically significant, suggesting that the association is not due to random chance and there is indeed a meaningful relationship between these two variables.

The significant relationship between cultural preservation and educational experience means that as the natural parks’ efforts to preserve cultural resources increase or improve, there tends to be a positive effect on the educational experiences of the visitors. This could be because cultural preservation activities, such as showcasing indigenous practices, promoting local creativity or educating visitors

about the local culture, enhance the informational and interpretive value of the park, leading to a richer educational experience. This finding highlights the importance of integrating cultural elements into the conservation strategy of natural parks. It suggests that visitors value learning about the culture of the area and that this can enhance their overall experience. Therefore, park managers might use this insight to develop and promote programs that emphasize cultural heritage, potentially improving visitor satisfaction and supporting conservation goals.

Table 15. Relationship between resource conservation strategies and visitor experience in Natural Parks.

Environmental/Biophysical Conservation	r-value	p-value	Interpretation
Entertainment Experience	-0.001	0.988	Not Significant
Educational Experience	0.009	0.867	Not Significant
Escapism Experience	0.039	0.485	Not Significant
Esthetic Experience	0.036	0.522	Not Significant
Cultural Preservation			
Entertainment Experience	0.021	0.699	Not Significant
Educational Experience	0.128	0.021	Significant
Escapism Experience	0.019	0.738	Not Significant
Esthetic Experience	0.018	0.747	Not Significant
Social Conservation			
Entertainment Experience	-0.024	0.665	Not Significant
Educational Experience	-0.02	0.718	Not Significant
Escapism Experience	-0.096	0.084	Not Significant
Esthetic Experience	0.007	0.899	Not Significant
Physical/Behavioral Conservation			
Entertainment Experience	-0.034	0.542	Not Significant
Educational Experience	0.004	0.950	Not Significant
Escapism Experience	-0.014	0.807	Not Significant
Esthetic Experience	0.020	0.725	Not Significant

Legend: Significant at p-value < 0.05.

The relationship between cultural preservation and visitor educational experience in natural parks, as indicated by the significant statistical correlation, aligns with the principles of heritage interpretation and environmental education literature. Heritage interpretation aims to enhance visitor understanding and appreciation of natural and cultural resources, and studies have shown that interpretive programs that include cultural elements can significantly improve the educational value of the visitor experience [87]. In the context of the Bicol region, where cultural heritage and natural beauty are intertwined, the incorporation of cultural preservation into resource conservation strategies likely pro-

vides a narrative that resonates with visitors, thereby enhancing their educational experience. This is supported by research indicating that interpretive storytelling that integrates cultural history with environmental information leads to a deeper engagement and understanding among park visitors. Moreover, culturally relevant environmental education is known to be effective in connecting visitors to the natural environment through the lens of local traditions and practices [88]. This approach can foster a sense of place and personal relevance, which are key factors in effective environmental education and can lead to more impactful learning experiences. The literature also suggests that visitors often seek meaningful experiences that connect them to the places they visit [89]. In natural parks, where the objective is to provide both recreational and educational opportunities, integrating cultural preservation into resource conservation can fulfill this visitor's desire for depth and meaning, as cultural elements often provide context and a sense of continuity that enhances the learning experience. Furthermore, studies on the psychology of learning environments suggest that when visitors encounter environments that are rich in cultural and historical significance, it can lead to enhanced cognitive engagement and satisfaction [90]. Therefore, the significant relationship between cultural preservation and educational experience may also be attributable to the cognitive and affective stimulation that cultural elements provide within a natural setting.

3.5. Relationship between Resource Conservation Strategies and Visitor Satisfaction in Natural Parks of Bicol Region

Table 16 shows the association between resource conservation strategies and visitor satisfaction in natural parks. It was noticed that the computed r-values indicate almost negligible direct/indirect correlation, however, only cultural preservation vs. attributes (p-value = 0.003); social conservation vs. services (p-value = 0.014); and physical conservation vs. facilities (p-value = 0.013) show a significant relationship. This was observed since the obtained p-value was less than the alpha level.

The result suggests that the effectiveness of resource conservation strategies in natural parks should be measured not only by their environmental impact but also by how they contribute to visitor satisfaction in specific areas. Cultural preservation efforts appear to have a significant positive correlation with how visitors perceive the attributes of the park. This indicates that when visitors notice and experience the conservation of cultural elements, such as local crafts, traditional practices, or even intangible cultural expressions, they tend to value these attributes highly, enhancing their overall satisfaction with the park experience. This could be due to a greater sense of connection to the place and its historical manifestations or a deeper appreciation for a park that actively safeguards its unique cultural identity. Moreover, the significant relationship between social conservation strategies and satisfaction with services suggests that visitors place a high value on the social aspects of their park experience. This could involve showcasing local performances, local hospitality and friendliness, or any com-

munity involvement initiatives that facilitate social interaction and learning about conservation. These services likely enhance the visitor's sense of participation and investment in the park's future, leading to higher satisfaction. Finally, the link between physical/behavioral conservation and facility satisfaction points to a visitor's preference for a well-maintained physical environment. This includes the upkeep of trails, serviceable road networks and directional signs, eco-inspired resting areas, cleanliness of facilities, and the general maintenance of the park's infrastructure. The condition of these facilities is a tangible reflection of the park's conservation efforts and directly affects the visitor's use and enjoyment of the space. In general, these significant correlations indicate the importance of holistic conservation strategies that consider cultural, social, and physical dimensions, suggesting that visitor satisfaction is multifaceted and influenced by a range of experiences within the park. For park managers, these insights provide a clear directive to not only maintain the natural environment but also to invest in the cultural and social programs and the infrastructure that supports the visitor experience.

Table 16. Relationship between resource conservation strategies and visitor satisfaction in Natural Parks.

Environmental/Biophysical Conservation	r-value	p-value	Interpretation
Services	-0.070	0.206	Not Significant
Facilities	0.015	0.782	Not Significant
Attributes	0.029	0.599	Not Significant
Cultural Preservation			
Services	0.051	0.360	Not Significant
Facilities	0.028	0.610	Not Significant
Attributes	0.166	0.003	Significant
Social Conservation			
Services	0.136	0.014	Significant
Facilities	-0.052	0.350	Not Significant
Attributes	0.045	0.422	Not Significant
Physical/Behavioral Conservation			
Services	-0.010	0.851	Not Significant
Facilities	0.137	0.013	Significant
Attributes	-0.027	0.623	Not Significant

Legend: Significant at p-value < 0.05.

The findings highlight the importance of cultural preservation, social conservation, and physical/behavioral conservation in enhancing visitor satisfaction in natural parks of the Bicol region, which are supported by a body of literature that spans environmental psychology, cultural studies, and park management.

Cultural preservation's impact on visitor satisfaction, studies have shown that visitors feel a deeper connection to parks that actively protect cultural heritage, leading to increased satisfaction [91]. This connection may be due to the innate human desire to understand and relate to the narrative of the place they are visiting, often referred to as a sense of place, which is well-documented in environmental psychology. The significant relationship between social conservation and visitor satisfaction with services is congruent with the principles of social constructivism, which posit that learning is a social process [92]. The integration of local performances, hospitality, and community involvement initiatives into park services can foster social interaction and active participation, which are key to visitor [19]. Furthermore, the physical conservation's correlation with facility satisfaction aligns with the attention restoration theory mentioned by Pasanen *et al.* (2018) [93], which suggests that well-maintained environments aid mental recovery from fatigue. Furthermore, research by Ariya *et al.* (2020) [94] indicates that the quality of facilities such as trails, signage, and cleanliness are critical determinants of visitor satisfaction. Taken together, these findings emphasize the need for park managers to adopt a holistic approach to conservation that encompasses not just the environmental aspects but also the cultural and social elements that contribute to a satisfying visitor experience. By doing so, parks can provide a more comprehensive experience that meets the diverse needs and expectations of visitors, ultimately leading to increased visitor satisfaction and support for the park's conservation goals.

3.6. Relationship between Visitor Experience and Visitor Satisfaction in Natural Parks of Bicol Region

Table 17 depicts the correlation between the experiences of visitors and their satisfaction levels in natural parks. The calculated r-values suggest a very weak correlation overall between these two variables. Nonetheless, a significant connection was found specifically between the enjoyment of entertainment and satisfaction with park services, as indicated by a p-value that falls below the established alpha threshold for significance.

The findings suggest that while visitor experiences in natural parks do not generally correlate strongly with satisfaction levels, the aspect of entertainment stands out as an exception. The correlation between entertainment experiences and satisfaction with park services is statistically significant, implying that how visitors perceive entertainment within the park can have a considerable impact on their overall satisfaction. The low p-value, below the alpha threshold, indicates that this is not a chance occurrence but a meaningful association. This could mean that entertainment, perhaps due to its ability to engage visitors emotionally, enhance learning, and provide memorable experiences, is a key determinant of how visitors judge the quality of service in a park. For park management, this insight could guide them to prioritize and refine their entertainment offerings to boost visitor satisfaction effectively.

Table 17. Relationship between visitor experience and visitor satisfaction in Natural Parks.

Entertainment Experience	r-value	p-value	Interpretation
Services	0.152	0.006	Significant
Facilities	-0.08	0.148	Not Significant
Attributes	0.063	0.253	Not Significant
Educational Experience			
Services	-0.073	0.189	Not Significant
Facilities	-0.105	0.057	Not Significant
Attributes	-0.086	0.120	Not Significant
Escapism Experience			
Services	-0.003	0.951	Not Significant
Facilities	0.100	0.071	Not Significant
Attributes	0.008	0.887	Not Significant
Esthetic Experience			
Services	0.022	0.690	Not Significant
Facilities	-0.044	0.430	Not Significant
Attributes	-0.074	0.183	Not Significant

Legend: Significant at p-value < 0.05.

The relationship between entertainment experiences and visitor satisfaction in natural parks, with its significant correlation, finds support in the literature concerning environmental psychology, visitor behavior, and service quality in recreational settings. The concept that entertainment within parks can significantly influence visitor satisfaction is supported by Pine and Gilmore's work on the Experience Economy, which posits that memorable experiences are a distinct economic offering and can lead to greater customer (or visitor) satisfaction [14] [95]. In the context of natural parks, entertainment experiences that are engaging and memorable can thus be seen as a valuable service that enhances overall satisfaction. Additionally, the ability of entertainment to emotionally engage visitors is aligned with the affective component of the Environmental Interpretation model, which suggests that interpretive experiences that evoke emotions can significantly enhance visitor satisfaction [96]. Emotional engagement is known to be linked with higher levels of visitor satisfaction, as it can create a personal connection to the experience and the setting. The significance of entertainment in enhancing learning experiences in parks is also highlighted in the literature. Research has shown that interactive and entertaining educational programs can improve knowledge retention and visitor satisfaction [97]. This suggests that entertainment not only serves to amuse but also to educate, thereby contributing to a more satisfying park experience. In summary, the significant correlation between entertainment experiences and visitor satisfaction in natural parks is well-supported by literature across several fields. These findings suggest that park management should

consider entertainment not merely as an add-on but as a core component of the visitor experience that can significantly influence satisfaction levels.

3.7. Proposed Park Management Framework

As an output of the study, the researcher hereby proposes and suggests the adoption of the Resource Conservation Visitor Experience and Satisfaction Framework, also called ResConVES (See Figure 1).

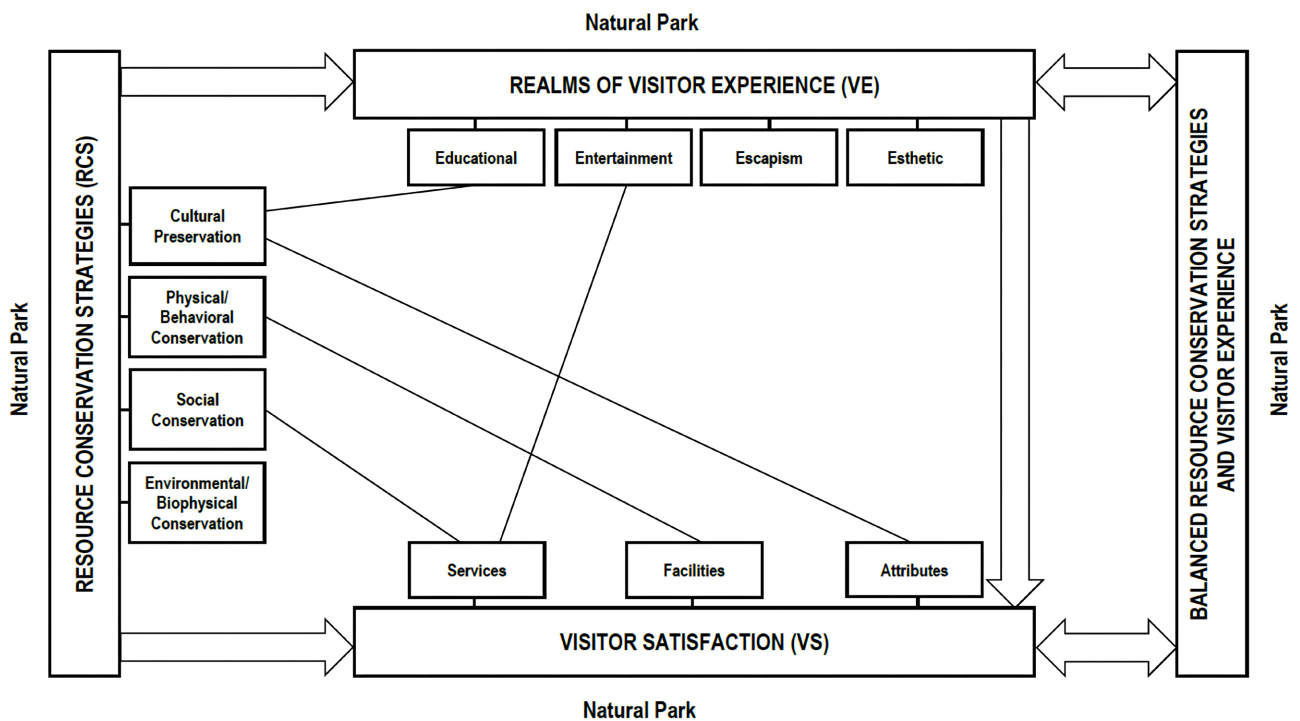


Figure 1. Resource conservation visitor experience and satisfaction (ResConVES) framework.

It is a park management framework focused on improving resource conservation strategies and enhancing visitor experience at the natural parks in the Bicol region, Philippines. This framework suggests a holistic approach to park management that integrates cultural, social, and physical/behavioral dimensions of conservation to enhance visitor experience and satisfaction. It emphasizes the importance of not just maintaining the natural environment but also investing in cultural and social programs and the infrastructure that supports the visitor experience. ResConVES framework is grounded on the empirical findings of the study, which is a comprehensive approach to meet diverse visitor needs and expectations, leading to increased experience and satisfaction, and support for the park’s conservation goals.

RCS—CULTURAL PRESERVATION AND VE—EDUCATIONAL EXPERIENCE. The significant relationship found between RCS—Cultural Preservation with VE—Educational Experience suggests that integrating cultural elements enhances the informational and interpretative value of the park, leading

to a richer educational experience for visitors. Thus, to further improve cultural preservation and enhance the educational experience of the visitors in the natural park, the park management may consider 1) Enhance authenticity by ensuring that cultural initiatives, including live performances, are presented authentically and respectfully, avoiding staged authenticity and prioritizing genuine local traditions to enhance visitor engagement and satisfaction; 2) Improve the cultural interpretation by means of providing context and educational value to cultural performances, emphasizing the cultural significance behind them, to enhance their educational value and appeal to visitors seeking a deeper understanding of the local culture; and 3) Diversify cultural offerings through a wide range of cultural experiences beyond live performances, such as interactive workshops, guided tours, or storytelling sessions, to cater to different visitor preferences and enhance cultural immersion opportunities.

RCS—CULTURAL PRESERVATION AND VS—ATTRIBUTES. A significant positive correlation between RCS—Cultural Preservation and VS—Attributes of the park indicates that visitors value a deeper connection to the place and its cultural identity. Relative to this, the management of natural parks may implement specific actions/strategies to improve cultural resource conservation and increase visitor satisfaction with park attributes. These are 1) Preserve cultural landmarks by means of identifying and restoring cultural landmarks within the park, such as ancient structures or historically significant sites; and 2) Develop heritage trails through developing trails that highlight the park's cultural heritage, with guides or audio tours explaining the significance of each stop.

RCS—PHYSICAL/BEHAVIORAL CONSERVATION AND VS—FACILITIES. The significant correlation between RCS—Physical/Behavioral Conservation and VS—Facilities highlights the importance of a well-maintained physical environment in enhancing visitor satisfaction. This significant relationship between physical conservation efforts and to satisfaction of visitors when it comes to facilities in the natural parks can be expanded through 1) Enhance communication and education campaign via improving communication and education efforts to raise awareness about the importance and benefits of using alternative recreational areas, proper equipment use, and engaging in off-peak season activities to both visitors and park staff; and 2) Conduct continuous maintenance and monitoring by way of implementing regular maintenance schedules and monitoring protocols to ensure the ongoing cleanliness and functionality of toilet facilities.

RCS—SOCIAL CONSERVATION AND VS—SERVICES. The significant relationship between RCS—Social Conservation and VS—Services suggests that social aspects of the park experience are highly valued by visitors. By improving these aspects of resource conservation and visitor satisfaction, the park management might be suggested to 1) Establish community involvement and interpretive programming by way of involving local communities in the development and execution of cultural initiatives, leveraging their expertise and insights to enhance the authenticity and relevance of cultural showcases. Additionally, de-

sign interpretive programs that convey both cultural and conservation messages to maximize their effectiveness in engaging visitors and fostering a conservation character.

VE—ENTERTAINMENT EXPERIENCE AND VS—SERVICES. The significant correlation between VE—Entertainment Experience and VS—Services indicates that entertainment is a key determinant of visitor satisfaction, contributing to both amusement and education. These important aspects of the relationship between visitor experience and satisfaction in the natural park can be further improved through 1) Evaluate cultural show content and relevance by assessing the content and relevance of live cultural shows and its alignment with visitor expectations and the local culture and environment; and 2) Enhance timing and scheduling by means of adjusting the timing and scheduling of cultural shows to minimize conflicts with other activities and maximize visitor participation, consider offering shows at different times of day to accommodate varying visitor preferences.

By implementing these thematic actions, the management of natural parks in the Bicol Region can significantly enhance visitor experience and satisfaction, while also promoting cultural preservation, social conservation, and physical/behavioral conservation, leading to **balanced resource conservation strategies and visitor experience.**

4. Conclusion

Visitors strongly approve of traffic congestion and air quality management initiatives in natural parks, which enhance both their experience and ecological health, though encouraging off-season visits received the least support. Cultural preservation efforts, such as promoting local customs and cuisine, are highly valued, while selling local crafts and fostering resident-visitor interaction received moderate agreement, and live performances were less favored. Providing friendly service and treating guests with care are crucial for enhancing visitor experience and loyalty, with moderate support for showcasing local performances. Visitors favor installing signs and providing resting areas to ensure compliance with park rules and comfort, while strategies to encourage using other park areas, demonstrate equipment use, and create engaging low-season activities received moderate agreement. Water-based activities and local souvenirs are highly praised, while live cultural shows received the lowest ratings. Information boards effectively enhance visitor education and satisfaction, though exploring local customs needs improvement. Tranquility and serenity received the highest escapism ratings, with fresh air and being in a new place also positively rated. Eco-friendly structures are highly valued for their esthetic integration, while tour itineraries are rated lowest. Visitors are highly satisfied with informative rangers and tour guides, but online information accessibility, services for disabled and elderly visitors, and clarity of visitor guides need improvement. Directional signs, walking trails, and picnic areas are appreciated, though toilet facility

cleanliness needs attention. Visitors enjoy native plants, solitude, and natural beauty, but feel less secure, indicating a safety concern. There is a weak correlation between conservation strategies and overall visitor experience, except for cultural preservation and educational experience (p-value 0.021). Cultural preservation significantly correlates with park attributes (p-value 0.003), social conservation with park services satisfaction (p-value 0.014), and physical conservation with park facilities satisfaction (p-value 0.013). Overall, entertainment enjoyment significantly impacts satisfaction with park services (p-value 0.006), despite a generally weak correlation between visitor experiences and satisfaction.

Acknowledgements

Acknowledgements to the Commission on Higher Education Regional Office IV for the full-time scholarship and research grant under the Scholarships for Instructors' Knowledge Advancement Program (SIKAP), which facilitated this research. Additionally, to the park administration and management of the Bicol region for providing essential support and resources. Lastly, to the Partido State University for a full-time study leave grant, and the Graduate School of the Lyceum of the Philippines University-Batangas for an enriching and comprehensive learning environment.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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