

# Assessing Visitor Satisfaction with Facilities in Sarawak's Totally Protected Areas: A Study of Bako and Niah National Parks

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## ABSTRACT

This study examines the level of visitors' satisfaction with the facilities within selected totally protected areas (TPAs) in Sarawak. For this study, the national parks chosen are Bako National Park, Kuching, and Niah National Park. The visitors' satisfaction level with the available facilities within the studied TPAs was assessed based on their feedback on the information displayed at the respective TPAs, the hygiene of the facilities available in the TPAs, and the signage (for safety measures) in the TPAs which is based on the Likert scale. The study uses three consecutive years of data from the customer satisfaction level report obtained from Sarawak Forestry Corporation (SFC). The result of this study reflects the visitors' opinions on their expectations of the TPAs' facilities. It was found that the visitors are satisfied with all three components, with room for improvement. They are most satisfied with the safety signage, followed by the information displayed and the hygiene aspect. This study will aid the management in managing the TPAs in the future to plan and decide what are facilities to be provided to the visitors and how those facilities can attract more visitors to uplift the TPA's image.

**Keywords:** Totally Protected Area (TPA), visitor; satisfaction; facilities

## INTRODUCTION

Sarawak, the largest state in Malaysia, is located on the island of Borneo and is also known as the "Land of Hornbill." It shares borders with Sabah, Indonesia's Kalimantan, and Brunei Darul Salam. In Sarawak, a Totally Protected Area (TPA) refers to forest lands designated under the National Parks Ordinance, 1998, and the Wildlife Protection Ordinance, 1998 [1]. These areas are managed to provide long-term benefits to humanity, conserve nature, and protect related ecosystem services and cultural values through legal or other effective measures [2]. Establishing TPAs is crucial for protecting and conserving wildlife habitats and their existence. Additionally, TPAs help preserve significant physiographical features, geological formations, recreational landscapes, and sites of archaeological interest, and serve educational or conservation purposes. TPAs also protect historic sites and monuments, facilitate biodiversity studies and research, and offer the public opportunities to enjoy, appreciate, and learn about the state's flora, fauna, historical values, and monuments. TPAs are classified into National Parks, Wildlife Sanctuaries, and Nature Reserves. Currently, there are 67 TPAs, with only 21 open to the public. This study focuses on two national parks: Niah National Park in Miri and Bako National Park in Kuching.

Ecotourism is a type of tourism that involves responsible travel to natural sites (using sustainable transportation), environmental preservation, and promoting the well-being of the local people. According to [3], billions of people are visiting TPAs worldwide. [4] stated that this has led to an increment in tourism activities in Sarawak, and the TPAs have received many visitors. Ecotourism is a type of tourism that involves

responsible travel to natural areas, protecting the environment, as well as enhancing the well-being of the locals [5, 6]. Ecotourism is also defined by [7] as “environmentally responsible travel and visitation to natural areas which are nearly undisturbed, to experience and acknowledge its worth in a way that encourages conservation, has a low visitor effect, and allows for beneficially active socio-economic participation of local inhabitants”. Forest conservation, wildlife preservation, cultural tradition preservation, and social cohesiveness are some of the advantages of ecotourism [4]. Hence, this is why TPAs play a vital role in promoting ecotourism in Sarawak. Most forests or protected areas provide nature in its preserved or hardly disturbed state, and they are typically located far from urbanized areas [8]. Visitors are drawn to national parks due to their natural environment and the benefits they can provide. TPAs do not only provide protection to the flora and fauna around Sarawak, but they also provide education to the visitors as well as serve different experiences based on the TPA visited as they have their unique features. These features are to be protected not only to preserve nature in its original state but also to benefit future generations.

## LITERATURE REVIEW

### Totally Protected Area (TPA)

Forest lands that have been recognized and developed under the National Parks Ordinance, 1998, and the Wildlife Protection Ordinance, 1998, are referred to as Totally Protected Areas (TPAs) [1] As of November 2020, Sarawak has gazetted a total area of 2,111,144.40 hectares comprising 67 TPAs altogether comprising 867,418.40 hectares of land area and 1,243,726 hectares of territorial water [9]. According to [2], protected areas are classified into different categories based on their management objectives. International organizations such as the United Nations and other national governments acknowledge the respective categories as the global standard for designating and registration of protected areas, and they are rapidly being adopted into official legislation. The IUCN categorized the protected areas into seven categories which are:

- Ia. Strict Nature Reserve
- Ib. Wilderness Area
- II. National Park
- III. Natural Monument or Feature
- IV. Habitat/Species Management Area
- V. Protected Landscape/Seascape
- VI. Protected Area with Sustainable Use of Natural Resources

### Visitor's Satisfaction and Its Importance

As global awareness of environmental conservation and sustainable tourism grows, protected areas have become vital destinations for nature enthusiasts and travelers seeking immersive experiences. These sites, ranging from national parks to marine reserves, play a crucial role in preserving biodiversity while offering recreational opportunities for visitors. Understanding visitor satisfaction in these areas is essential for effective management and conservation efforts. Satisfaction levels not only reflect the quality of visitor experiences but also influence visitors' attitudes towards conservation and their willingness to support sustainability initiatives.

Visitor satisfaction is crucial for protected area management, influencing conservation support and revenue generation [10]. Studies across various protected areas reveal that natural settings, cultural experiences, and environmental conservation significantly impact visitor satisfaction [11, 12]. Demographic factors, such as age, gender, and education, also play a role in shaping visitor satisfaction [13]. While some protected areas excel in safety and viewpoint maintenance, improvements are often needed in basic facilities, signage, and interpretation services [12]. Park interpretation and human relations have been found to correlate positively with visitor satisfaction [13]. To enhance visitor experiences and loyalty, managers should focus on understanding visitor expectations, improving service quality, and measuring intended behaviors beyond mere satisfaction. This approach can help protected areas balance conservation goals with tourism benefits in an increasingly competitive market.

## Visitors' satisfaction with the Totally Protected Areas (TPAs) in Sarawak

Sarawak is home to a diverse array of flora and fauna, with 67 Totally Protected Areas (TPAs) established to preserve its natural beauty, 21 of which are open to the public. Table 1 presents the number of visitors to the TPAs in Sarawak. Each TPA offers unique attractions, such as being a habitat for the proboscis monkey and the world's largest flower, the Rafflesia. According to [14], paying admission fees to Sarawak's national parks and protected areas supports the maintenance of these delicate forests, much of which consists of virgin primary growth, and protects the unique fauna residing there. [15] reported that due to their wildlife attractions, exciting nature activities, and stunning and unique landscapes, TPAs remain the most popular eco-tourism destinations for both domestic and international tourists.

One of the difficulties in ecotourism is the environmental disruption caused by travel, as people must use airplanes, vehicles, or boats to reach exotic locations, all of which generate significant pollution, impacting the local environment with noise, air pollution, and land pollution [16]. The [17] highlights that sustainable tourism faces challenges in contributing to the local community and ensuring effective communication among authorities, the community, and tourists. Local communities are crucial to sustainable tourism, and without a well-planned strategy, this opportunity can be compromised. To prevent inequality, it's essential to involve the community thoughtfully [17]. Another critical aspect is community involvement in decision-making, which is necessary to maximize the socioeconomic benefits of tourism for the community. Furthermore, ecotourism values the culture and beliefs of indigenous populations and seeks to collaborate with them. Thus, effective communication between authorities, tourists, and the community is vital for realizing the full potential of sustainable tourism.

Totally protected areas (TPAs) in Sarawak play a crucial role in conserving biodiversity, covering about 4% of the state's total area [18]. These areas harbor diverse wildlife, including endangered species like the Sunda Pangolin and Bornean Bay Cat [18, 19]. Camera trapping has been effective in documenting wildlife presence and distribution in TPAs, such as Baleh National Park and Mount Penrissen [18, 19]. However, these protected areas face challenges due to fragmentation and isolation, potentially impacting species persistence. To address conservation needs, machine learning techniques have been employed to predict visitor patterns in TPAs, considering factors like park age, distance from cities, and natural characteristics [20]. This information can aid in monitoring, decision-making, and planning for the long-term protection of Sarawak's unique biodiversity.

**Table 1.** Visitors' Statistics Visiting Totally Protected Areas in Sarawak

Region	Visitors		
	2017	2018	2019
Kuching	518,053	569,769	373,963
Bintulu	14,414	11,475	65,508
Miri	67,608	60,335	65,508
Sibu	138	52	18,051

Reference: (Sarawak Forestry Corporation, 2022)

Table 1 shows the visitors' statistics visiting Totally Protected Areas in Sarawak in 2017 to 2019 based on the data compiled in 2022. Visitor satisfaction is an evaluation made by visitors after their experience aligns with their expectations [21,22]. [23] identifies several methods for analyzing tourist satisfaction: expectation-performance, importance-performance, disconfirmation method, and performance approach. Among these, tourism researchers have adopted the perceived-performance methodology to evaluate tourist satisfaction. The traditional importance-performance analysis (IPA) method, while widely used, has limitations due to its assumptions of independence between attribute importance and performance [24]. To address these issues, [24] proposed a modified IPA method using partial correlation coefficients to more accurately reflect attribute importance. [25] introduced an innovative approach utilizing social media data to assess destination

satisfaction. This method employs sentiment analysis for performance measurement and an adjusted association rule mining algorithm for importance calculation. The authors suggest that this approach offers advantages over traditional survey-based methods, including larger sample sizes, lower costs, and greater flexibility in data collection. These studies contribute to the ongoing development of tourist satisfaction measurement techniques.

[26] assert that visitor satisfaction significantly influences the development of marketable visitor products and services, as well as the likelihood of visitors returning. Visitor satisfaction with a destination is measured by how well a location's characteristics exceed visitors' expectations [27]. [28] described satisfaction as the evaluation of how much a customer likes or dislikes a product or service after experiencing it. Essentially, visitor satisfaction compares the travel experience to pre-travel expectations. [29] and [30] defined visitor satisfaction as the difference between visitors' experiences at a destination and their expectations. An individual's perception of a destination reflects how well it meets their expectations. Additionally, [31] noted that satisfaction is the evaluation a visitor makes based on their service encounter, where the exchange of goods and/or services took place.

[32] stated that visitors' satisfaction is influenced by factors such as the environment, price, service quality, and individual differences. Therefore, visitor satisfaction varies between customers, firms, and encounters, as experiences can differ over time. It is also affected by visitors' emotions and the quality of the products. While expectations are short-term predictions, visitor satisfaction reflects the actual service quality. Providing high-quality facilities in nature-based recreational areas is essential, though challenging. These facilities serve as tourism products, and misunderstandings about them can hinder an effective tourism system. [33] emphasized that visitor satisfaction is crucial for successful destination marketing, as it influences the choice of destination, consumption of services and products, and decisions regarding return visits.

### **Factors Affecting Visitor's Satisfaction**

Visitor satisfaction has long been regarded as a crucial element for the success of an organization [34]. Earlier [35] defined visitor satisfaction as the measure of a visitor's experience and psychological outcomes based on their interactions with various service aspects of a destination. According to [36], understanding visitors' satisfaction levels offers valuable insights into the motivations and nature of their contentment or dissatisfaction, aiding in the development and promotion of tourism destinations and businesses. Research has shown that infrastructure and facilities play a significant role in visitor satisfaction at various tourist attractions and office buildings. [37] explored how building conditions and facilities could potentially improve customer satisfaction in office buildings. Similarly, [38] found a strong relationship between facilities and infrastructure and visitor satisfaction at the Bogor Botanical Gardens. [39] examined the effect of tourist facilities on satisfaction at Tegenungan Waterfall in Bali, concluding that facilities significantly impact visitor satisfaction. These studies collectively emphasize the importance of well-maintained infrastructure and appropriate facilities in enhancing visitor experiences across various settings, from office buildings to natural attractions [40,41,42].

[43] highlight that safety is a crucial aspect of service quality that significantly influences visitor satisfaction. Safety involves ensuring that the amenities in National Parks are secure for visitors to use confidently. Safety in national parks involves managing visitor risks and ensuring secure amenities. Park directors play a crucial role in balancing nature protection with visitor safety [44]. While visitors generally approve of risk management interventions, higher levels of control may paradoxically lower perceptions of park dangerousness [45]. Despite educational efforts and regulations, visitors often engage in risky behaviors, such as approaching wildlife or thermal features in Yellowstone National Park [46]. Park managers face the challenge of balancing legal and moral obligations with societal expectations while maintaining visitors' appreciation of risk [47]. Understanding decision-making processes and social justice concepts may help explain and address risky visitor behaviors in national parks [48].

Hygiene is another critical factor in determining visitor satisfaction. [49] studied visitor satisfaction in Laguna Grande, Puerto Rico, and found that facility hygiene needs improvement, highlighting its importance in influencing visitor satisfaction. Research shows that hygiene plays a crucial role in visitor satisfaction at

attractions and events. According to Herzberg's two-factor theory, when applied to tourism, hygiene factors are vital for preventing dissatisfaction but do not necessarily enhance satisfaction [50,51]. These factors include cleanliness, facilities, and infrastructure [52]. Negative experiences with hygiene can harm visitors' perceptions of the overall experience, leading to lower satisfaction and a decreased likelihood of revisiting or recommending the attraction [53]. In the restaurant setting, hygiene has been found to positively and significantly affect visitor satisfaction [54]. Therefore, attraction managers should prioritize high hygiene standards to prevent dissatisfaction and build a solid foundation for visitor satisfaction. They should also address hygiene-related issues in online reviews to improve service quality and attract more visitors [55].

## Problem Statement

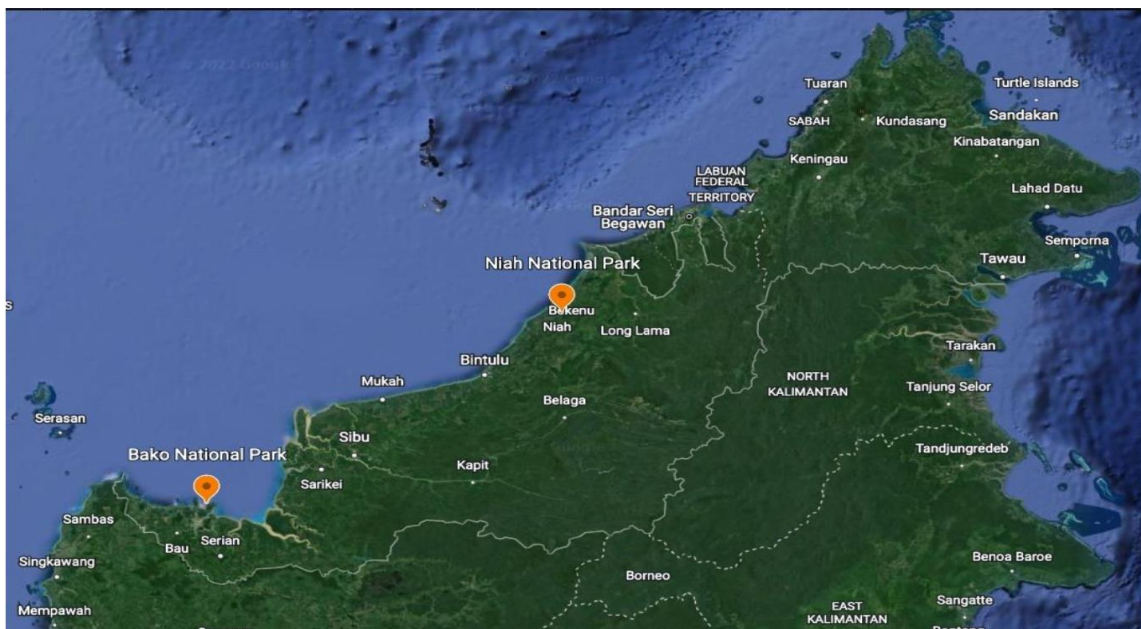
As visitors can visit the selected TPAs, it is important to identify the visitors' satisfaction with the facilities which is a critical problem in the tourism industry. According to [56], contentment is a critical factor in developing marketable tourist products and services. The visitors' satisfaction with TPA facilities reflects the planning of a given TPA management. Hence, it is important to provide facilities that will fulfill the visitors' needs as well as comfort for their benefit. However, maintaining facilities in an environment that is exposed to nature could come with limitations, especially in TPAs. Facilities such as information displays and safety signages that are exposed to nature are affected by the weather which will cause them to be washed out over time. Facilities management is also affected by the environment as nature is to be conserved and activities such as tree cutting are to be minimized. Apart from that, the facilities establishment must preserve nature's characteristics as much as possible. Nevertheless, the study conducted on the visitors' satisfaction with the facilities will provide a better understanding on what are the improvements that should be made to provide facilities that will meet their expectations.

## Objective of the Study

The objective of this paper is to identify the visitors' perceptions and contentment with the facilities at selected National Parks in Sarawak. The information obtained from this study will provide essential information for strategizing the park's future planning that will meet the visitor's expectations in the future.

## METHODOLOGY

The study employed a quantitative method through the questionnaire survey. The survey was conducted at two national parks in Sarawak which were Niah National Park and Bako National Park. Both national parks were the most visited national parks in Miri and Kuching (Figure 1).



**Figure 1:** Location of Niah National Park and Bako National Park (Source: Google Earth)

Niah National Park is in Southeast Asia and about 65 km from South-West of Miri city. The national park consists of 3,139 hectares of forest including limestone karst areas. However, despite the large area, Niah National Park is one of the smallest national parks in Sarawak. According to Sarawak Forestry Corporation [62], Niah NP was gazetted on 23 November 1974. This TPA is enriched with various flora and fauna, as well as historical sites (paleolithic and neolithic burial sites) and human remains. It is the house of the Great Cave, Painted Cave, and Moon Cave (Gan Kira) [63]. Visitors can experience multiple trails on their way to the caves mentioned, as well as being exposed to the Iban community who lives at Patrick Libau's longhouse [64].

On the other hand, Bako National Park is the oldest national park in Sarawak which covers an area of 2,727 hectares at the Muara Tebas peninsula's tip. It was gazetted on 1 May 1957 (Sarawak Forestry Corporation, 2020). Despite its small size, it is enriched with various wildlife as well as vegetation. Bako has matured into a magnificent coastline of cliffs, rocky headlands, and several lengths of sandy bays and coves because of millions of years of erosion [65]. Sea arches and sea stacks have been created by the erosion produced by repeated waves at the base of the cliffs. One will be able to appreciate the enchanting sandstone formations with pink and iron patterns which may be discovered on cliff faces along the coastline.

The respondents were among the visitors who came to the national parks. The questions consist of two parts such as the demographic background and the satisfaction level of the visitors on the national parks. A total of five questions were derived to assess the visitors' demographic background such as age, gender, nationality, type of visit, and purpose of visit. Visitor satisfaction with the facilities in the TPA was assessed based on feedback regarding the information provided, the comfort level related to facility conditions (reflecting hygiene standards), and the effectiveness of directional signages as a safety measure within the TPAs. The questionnaire used a 5-point Likert Scale to gauge visitor satisfaction, with options ranging from Poor, Fair, Good, Very Good, to Excellent. The feedback received will indicate whether visitors' experiences align with their expectations of the TPA facilities, either confirming or disconfirming their satisfaction. The questionnaire survey was done randomly to the visitors to both national parks. The questionnaires were obtained from the Sarawak Forestry Corporation's Internal Audit Unit. Therefore, the study covered three years of surveys starting from 2017 to 2019. Then, the data was analyzed using descriptive analysis. The visitors were not given any time constraints in filling out the questionnaire provided. According to [57], a metric is still useful in managing and monitoring as it can be used as an indicator of consumer revisit intentions and loyalty, a point of differentiation, reduces customer churn, increases customer lifetime value, and it is cheaper to retain customers than acquire new ones.

## RESULTS AND DISCUSSIONS

### Demographic background of the respondents

Figure 2 illustrates the percentage of male and female visitors to Niah NP and Bako NP from 2017 to 2019. The data shows that Niah NP generally attracted more male visitors, while Bako NP drew more female visitors. This trend may be attributed to the different attractions each TPA offers. Niah NP is accessible by land transportation alone, whereas Bako NP requires sea transportation, both TPAs provide options for day trips and overnight stays. They each feature a range of trails with varying levels of difficulty to suit all visitors. The attractions at both TPAs deliver the experiences that visitors expect based on their pre-visit anticipations.

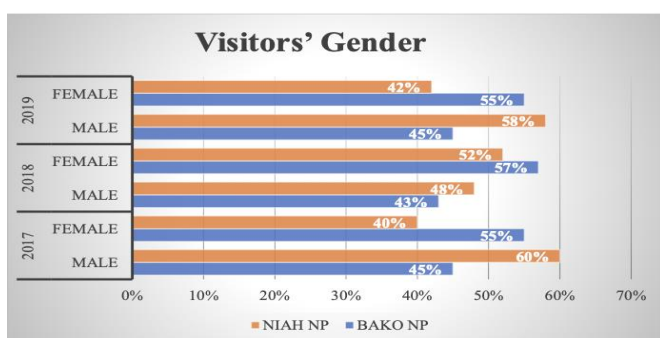


Figure 2. Gender of the visitors

Figure 3 displays the percentage of visitors' nationalities for Niah NP and Bako NP from 2017 to 2019. The data reveals that Niah NP attracted more local visitors, while Bako NP drew a higher number of foreign visitors during this period. This trend is also reflected in Table 2, which provides statistics on visitor numbers for both TPAs from 2017 to 2019. The different attractions at each TPA may influence the nationality of the visitors, as locals tend to prefer a more relaxed visit, whereas foreigners seek more challenging and exploratory experiences. Additionally, foreigners are often looking for new experiences and are willing to travel further for them. Conversely, locals have easier access to the TPAs and generally favor family-friendly national parks.

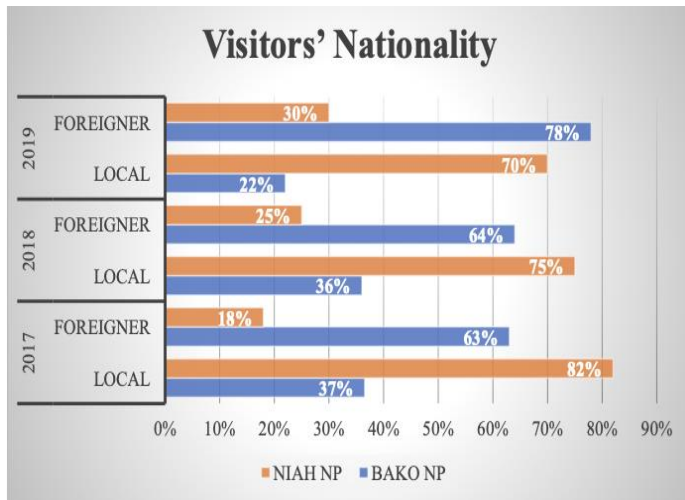


Figure 3. Nationality of the visitors

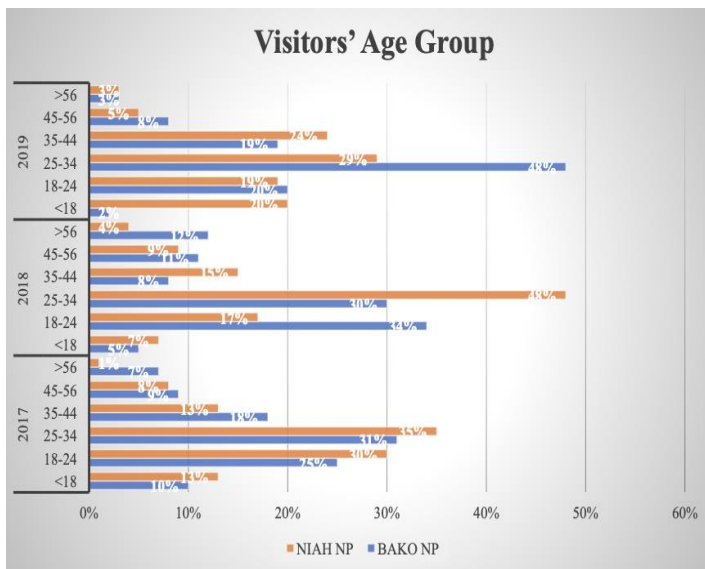
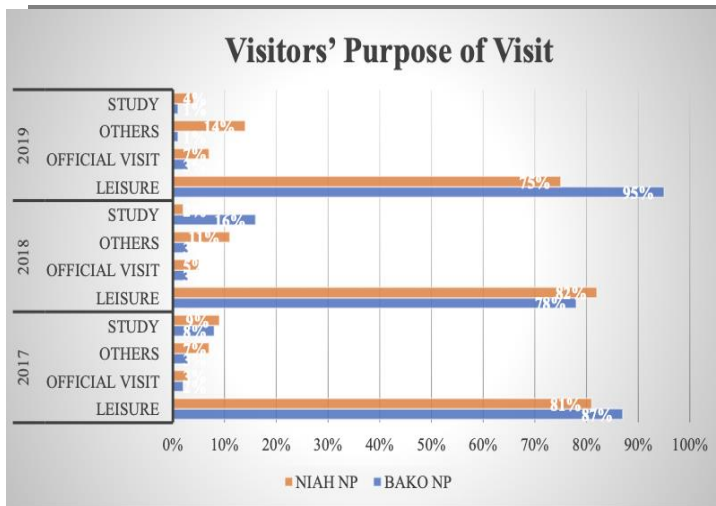


Figure 4. The visitors' age group

Figure 4 illustrates the age distribution of visitors to Niah NP and Bako NP from 2017 to 2019. It reveals that both parks predominantly attracted visitors in the 24-34 age group. This suggests that the features and activities at both TPAs are particularly appealing to young adults. The physical demands of the attractions may be challenging for older visitors, depending on their health. According to [49], young adults are typically between the ages of 17 and 30. [54] notes that physical capabilities, such as muscle strength, reaction time, sensory abilities, and cardiovascular function, are at their peak during early adulthood.

Figure 5 displays the percentage of visitors' reasons for visiting Niah NP and Bako NP from 2017 to 2019. The data indicates that the primary purpose of visits to both parks is leisure. The TPAs provide opportunities for visitors to connect with nature, which supports mental well-being. Exposure to nature can evoke various positive emotions, such as calmness, joy, and creativity, and has been associated with enhanced concentration and better mental health, including reduced depression and anxiety [51].



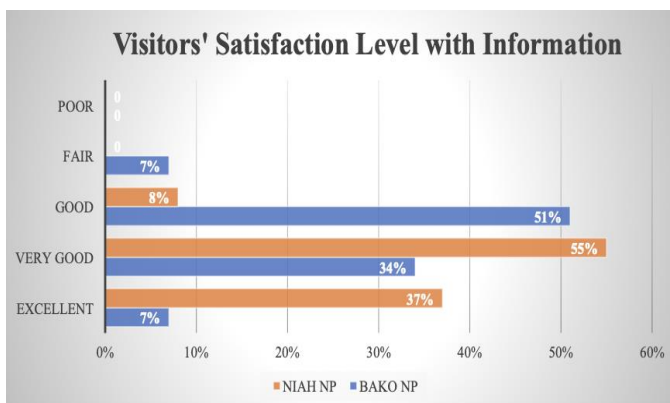
**Figure 5.** Visitors' Purpose of Visit

### Satisfaction Level of Visitors on TPAs' facilities

#### Informative

At Niah NP, visitors can access information about swiftlets and the historical caves within the park, as well as details about available trails for reference. In contrast, Bako NP offers information on its trails, including a map with distances for each trail. Additionally, the Environmental Education Centre within Bako NP provides knowledge on local flora, fauna, and sandstone formations. According to the collected data, Figure 6 shows that visitor satisfaction with the information available within the TPAs is rated as "Very Good" for Niah NP and "Good" for Bako NP. This suggests that the information provided both within the TPAs and on external platforms, such as SFC's website and Facebook page, is adequate for giving a general overview and additional insights about the TPAs. However, with a rating of four on the Likert scale, there is still room for improvement in this aspect of the study.

The information displayed in TPAs is crucial for helping visitors understand the park and learn about local flora and fauna. Visual information helps visitors grasp data more easily, as it is processed more naturally by the human mind. [46] distinguished that data visualization, especially visual data, communicates information quickly and effectively.



**Figure 6.** Visitors' Satisfaction with Information

However, the clarity of these displays is essential to ensure that visitors can easily access the information (Figure 7). Outdoor information displays can suffer from weather-related damage over time, as seen at Niah NP (Figure 8). [56] highlights that weather conditions, such as rain and sun, significantly affect the longevity of outdoor displays. Rain and sunlight can fade colors and cause metal parts to rust. Therefore, regular maintenance is necessary to keep displays clear and appealing to visitors.





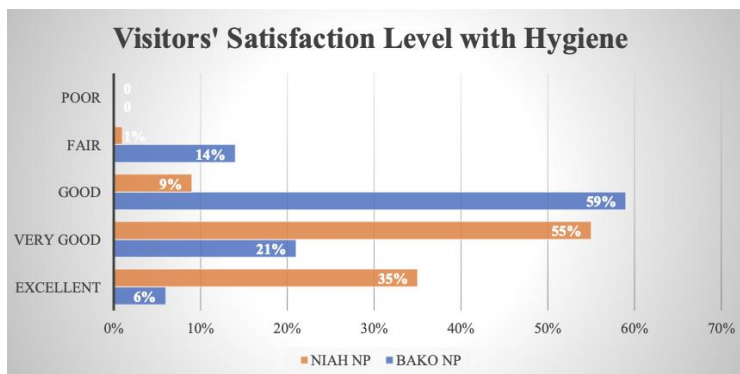
**Figure 7.** Information Display (Niah National Park)



**Figure 8.** Weathered Information Display (Niah National Park)

### Hygiene

Both Niah NP and Bako NP provide facilities such as chalets and public toilets, which are essential for maintaining hygiene. Although they offer similar amenities, the volume of visitors at each park impacts overall satisfaction with cleanliness. According to the data, Figure 9 shows that visitor satisfaction with the hygiene at Niah NP was rated as “Very Good,” while Bako NP received a “Good” rating. This variation may be affected by the timing of visits. Daily fluctuations in visitor numbers can influence feedback, especially during peak times when park staff might not have been able to thoroughly clean the facilities. Additionally, any damaged facilities, such as bidets and their accessories, can affect hygiene. Niah NP’s closer proximity to town allows easier access to replacement parts, whereas Bako NP needs to keep spare parts readily available to handle any damage that occurs.



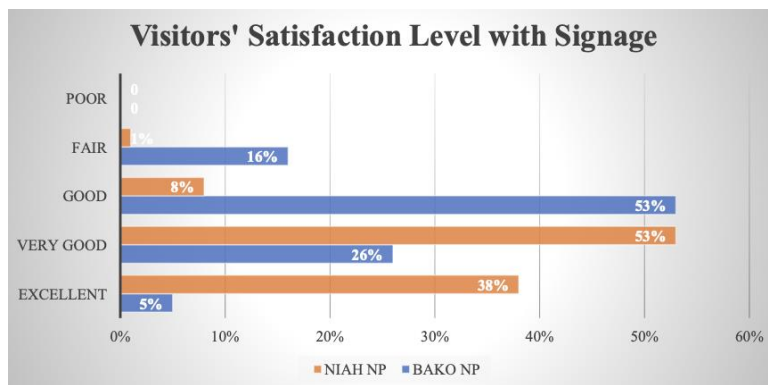
**Figure 9.** Visitors' Satisfaction with Hygiene

[55] emphasized the importance of maintaining high hygiene standards. Good hygiene leaves a positive impression on visitors, who share their experiences with others, influencing future visitors' decisions. [56]

noted that many travelers prioritize health and cleanliness when choosing a destination. A clean environment reflects the park management's commitment to keeping facilities comfortable for both staff and visitors. For example, restrooms, which see frequent use throughout the day, must be kept clean and odor-free to prevent health issues and negative reviews. Visitors also judge the hygiene and comfort of accommodations, such as chalets or hostels. Walls, floors, and beds should be free from stains. [57] found that tourists value the cleanliness of lodgings, the overall atmosphere, and the cleanliness of cafes. Prioritizing hygiene not only makes a great first impression but also encourages visitors to leave positive reviews for potential visitors.

## Signage

Both Niah NP and Bako NP have safety signs installed throughout the parks. Figure 10 shows the satisfaction with the signage in the parks. These signs are essential for reminding visitors to be mindful of their surroundings and activities. [58] emphasize the importance of effectively communicating safety advice to visitors in national parks, particularly when the consequences of mistakes can be serious.



**Figure 10.** Visitors' Satisfaction with signage

Signage in TPAs primarily provides directions to visitors. According to [52], effective signage helps prevent visitors from getting lost, thereby avoiding negative reflections on the organization. Signage also serves as a safety measure, indicating dos and don'ts and displaying warnings. It can be installed anywhere needed within the TPA to highlight hazards and provide emergency instructions, increasing safety awareness among staff and visitors.

Safety signs play a crucial role in informing workers about potential hazards and prevention methods [60]. Proper signage can reduce accidents, which are unforeseen events leading to injuries, illnesses, fatalities, and property or productivity loss. While accidents can't be completely avoided, planning and precautions can lessen their frequency and severity. A safe environment enhances visitors' experiences, making them feel secure during their visit.

Ensuring visitors' satisfaction is crucial, as their experiences influence their recommendations to family, friends, and the public, reflecting the management's performance. [61] stated that maintaining a destination's image is essential for high visitor satisfaction and loyalty. Understanding what drives visitor satisfaction helps improve customer loyalty and informs strategy development and management for the destination.

## CONCLUSIONS

This study on Sarawak's national parks examined visitors' satisfaction with TPA facilities over three consecutive years. The results show that visitor satisfaction levels fluctuated during this period. Factors contributing to this variation include the time of visit, weather conditions, the TPA environment, visitors' pre-visit expectations, and their overall experiences. These elements collectively influence satisfaction levels at Bako NP and Niah NP. Different TPAs received varying feedback from their visitors. However, satisfaction levels with the facilities can guide future improvements, such as enhancing available information and ensuring clear directional and safety signage to meet or exceed visitor expectations. Additionally, visitor feedback reflects the management's skills and ethics in maintaining TPA facilities. While each visitor's experience may

differ, their shared experiences influence the public's expectations of Sarawak's national parks. It is recommended that a more detailed study on visitors' satisfaction with TPA facilities be conducted in the future. This study would help to understand the importance of maintaining good facilities in TPAs. Additionally, a follow-up study to identify visitors' willingness to return to the TPAs they have visited should also be undertaken. This research would assist management in planning and deciding which facilities to provide to attract more visitors and enhance the TPA's image.

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## Disclosure Statement

The author declares that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

## Data Availability Statement

The data supporting the findings of this study can be obtained from the corresponding author upon reasonable request.

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