International Journal of Asian Social Science
ISSN(e): 2224-4441
ISSN(p): 2226-5139
DOI: 10.18488/journal.1.2017.77.546.556
Vol. 7, No. 7, 546-556

URL: www.aessweb.com

THE ATTRACTIVENESS OF BUKIT NANAS RECREATIONAL FOREST AS AN ECOTOURISM DESTINATION AS PERCEIVED BY FOREIGN VISITORS

Azlizam Aziz[1+]
Nur Hafizah Idris[2]
Mazlina Jamaludin[3]
Manohar Mariapan[4]
Zaiton Samdin[5]

[1,2,4,5]*Department of Recreation and Ecotourism, Faculty of Forestry, Universiti Putra Malaysia, Serdang, Selangor, Malaysia*
[3]*Department of Tourism and Hospitality Politeknik Sultan Idris Shah Selangor, Malaysia*

(+ Corresponding author)

Article History
Received: 13 February 2017
Revised: 16 June 2017
Accepted: 23 June 2017
Published: 14 July 2017

Keywords
Recreational forest
Tourism market
Ecotourism destination
Bukit nanas recreational forest.

ABSTRACT

Ecotourism has been identified by the Malaysian government in its newly introduced National Key Economic Area as an important niche area, in which ecotourism would be used to differentiate Malaysia from other competing destinations in the region. Conventionally, ecotourism products are developed based on the existing cultural and natural attractions. In Malaysia, recreational forest have the potential to be developed and marketed as ecotourism destinations since these forests are endowed with many attributes of tourism attractions, including beautiful scenery, fresh-flowing rivers, waterfalls as well as diverse flora and fauna. There are currently a total of 124 recreational forests in Peninsular Malaysia which has received visitations by mostly local visitors and only a handful of foreigners. Thus, the principal purpose of this paper is to evaluate the relative importance of existing attributes in attracting foreign tourist to visit recreational forests. Several factors are noted as having the potential to influence future visits to the recreational forest. These factors include the vast diversity of natural resources, proximity to major cities where captured tourism markets are situated and the availability of facilities.

Contribution/ Originality: This study is one of the very few studies which have investigated the Bukit Nanas recreational forest as an ecotourism destination. Also known as the KL Forest Eco-Park, it consist a small patch of tropical lowland rainforest in the middle of a city center that is accessible to foreigners and city dwellers to visit. This study documented that despite a robust surrounding development, Bukit Nanas is able to survive and preserve as the only virgin tropical forest available in the Kuala Lumpur. Therefore, all visitors' should appreciate and help to sustain this forest for the future.

1. INTRODUCTION

As a rapidly developing country, Malaysia has recognized the importance of a healthy lifestyle to complement economic wealth. Realizing such a need, in 1978, the government, through the Forestry Department of Peninsular Malaysia (FDPM) gazetted several forest reserves for recreational purposes (Azlin, 1999). This type of forest is often described as an area with quiet surroundings, rich in flora and fauna and water features like rivers and waterfalls, frequently cited as popular attractive characteristics for visitation (World Wide Fund for Nature

(WWF) Malaysia, 1996). A review of literature of the last ten years revealed that several studies from various perspectives have been conducted on recreational forests in Malaysia. For example, Zimmerman (2002) evaluated the visitor's needs and measuring gaps of performance for facilities in Sungai Tekala Recreational Forest. A research by Afriezul (2004) studied the visitor's awareness on the need for resource conservation at recreational forest. In contrast, a research conducted by Kwan (2006) had focused on visitor's perception on recreational use impacts on soil and vegetation in Ulu Bendul Recreational Forest.

Despite the recent interest to visit recreational forests in Malaysia, the absence of research on how foreign visitors might have evaluated the attractiveness of the forests as ecotourism destination is a cause for concern. From the statistics of visitors in the Bukit Nanas Recreational Forest (Table 1), it was noted that the number of visitors from outside the country is higher than the local visitors (Forest Department of Peninsular Malaysia, 2012). What can be deduced from such figures is that evidently, recreational forests can attract foreign visitors as much as national parks and perhaps, it may even help generate additional income for the country and is equally important to diversify the tourism profile of Malaysia.

In order to offer recreational forests as future ecotourism destinations, marketing planners are first required to better understand the potential market (Baloglu and Uysal, 1996). As such, baseline information is needed, that is including how such a product (e.g. the destination, in this case the recreational forest) is being perceived by the market (e.g. visitors, including foreigners). It is understood that although most of these forests are currently lacking in competent personnel to carry out tasks necessary to receive visitors, substandard maintenance of current facilities and the non-existence of structured programming of ecotourism activities; the forests possess the potential to be developed and marketed as an ecotourism destination. Once those issues are addressed, recreational forests can help to diversify and add a unique dimension to the Malaysian ecotourism appeal.

1.1. Study objectives

The primary objective of the study was to evaluate the attractiveness of recreational forest in Malaysia (Bukit Nanas Recreational Forest) as an ecotourism destination as perceived by foreign visitors. In order to measure attractiveness, this study refers to a previous study by Lee *et al.* (2010) which had derived a framework of hierarchy of determinants for attractiveness of recreational forests. They noted that four major dimensions contribute to the overall attractiveness of forest recreation areas including tourist attraction, accessibility, amenities and complementary services.

1.2. Attractiveness of Destination

Lew (1987) noted that, "without attractions, there would be no tourism and without tourism, there would be no tourist attractions". Attractions are the key to tourism growth. They provide motivation for visits and represent the core product of the 'experience' in any tourism place. They provide economic value by increasing the average spends of visitors (Tasmania Parks and Wildlife Services, 1999). Meanwhile, Mayo and Jarvis (1981) defined attractiveness as "perceived ability of the destination to deliver individual benefits". The tourism places may attract many visitors because they offer a service or product that meet visitor's need and motivation. In addition, Jin *et al.* (2012) define attractiveness as "an experience in which the supplier binds together different products and services". This suggests that the acting manager should provide facilities or services that are suitable to the different needs of the visitors. Attractiveness of destination has a great effect on determining destination choice, satisfaction, intentions to revisit and positive perception of opinion leaders (Becken and Simmons, 2002; Teller and Reutterer, 2008; Lee *et al.*, 2010).

As previously mentioned, one place could be an attraction when the place is able to provide services to meet diverse visitor's needs. Managers and administers should take this challenge in improving their attractions. Cracolici and Nijkamp (2008) examined the relative attractiveness of some ecotourism destinations based on

visitor's perception of the holiday destination. They concluded that, "destination areas are challenged to offer a balanced package of those tourist services which all together shape an appealing multidimensional profile for a tourist area". In another study by Ryan and Saward (2004) they evaluated the motives and attributes of visitors who came to the Hamilton Zoo in New Zealand. They believed that the motives of the visitor and the appropriate venue attributes can influence the reason for visiting a zoo. Lee *et al.* (2010) proposed that the attractiveness of a destination has a tremendous influence on determining a person's destination of choice, expectation of satisfaction, intention to revisit, perception of benefits and motivation, positive perception of opinion leaders, the amount of money spent and the duration of stay. In other words, the perceived attractiveness of the destination is always influenced by the visitors' demands.

MacCannel (1976) explained that, "there are three components to be considered as attraction that is (1) tourist, (2) a site to be viewed and (3) a maker to be an image which makes the site significant. Thus, attraction in its widest context would not only include the historic sites, amusement parks and spectacular scenery which are normally associated with the words, but also the services and facilities which cater to the daily needs of tourist". The attractiveness of a destination does not only depend on the uniqueness of the place. It must be in conformity with the requirements of the visitor. However, visitors with different backgrounds can raise all kinds of requirements (Fodness, 1994). Therefore, studies on attractiveness are important to find out what consumers need and prefer. This current study was undertaken to examine what is required by foreign visitors when they were visiting recreational forests in Malaysia and to find out if these forests have the potential to become ecotourism destinations.

1.3. Recreational Forest as an Ecotourism Destination

There are numerous conceptual definitions of ecotourism. Each author that has defined ecotourism has tried to identify ecotourism based on their understanding and perspective. Ziffer (1989) stated that ecotourism is a "form of tourism inspired primarily by the natural history of an area, including its indigenous cultures". Supporting this notion Boo (1991) defined ecotourism as a "nature tourism that contributes to conservation, through generating funds for protected areas, creating employment opportunities for local communities and offering environmental education". Forest Tasmania (1994) defined ecotourism as "nature-based tourism that is focused on provision of learning opportunities while providing local and regional benefits, demonstrating environmental, social, cultural and economic sustainability". A comparison of these definitions indicated that ecotourism tends to have nature, conservation, environmental education and economic sustainability. As mentioned by Diamantis (2004) ecotourism has three main components which are nature, education and sustainable management. Sustainable management includes economic, social, cultural and ethical issues (Diamantis, 2004). Hence, ecotourism plays an important role for nature-based education and conservation. These had made ecotourism differ from other types of tourism. It can be concluded that one thing that distinguishes ecotourism from tourism is that ecotourism potentially produces positive contribution to the conservation of the natural environment (Buckley, 2009).

According to Smit and Pascut (2009) recreational forests were made available to the public because it contributes to the "satisfaction of recreational, relaxation and resting necessities, practicing sports, studying the vegetation and fauna" and so on. In Guidelines for Recreational Forest Reserves (WWF, 1998) it was explained that "in Malaysia, recreational forests are typically small areas (a few forest compartments) near the edge of forest reserves, near to road access and with a stream or waterfall". Forest Department of Negeri Sembilan (2010) commented that recreational forests play an important role in nature tourism or ecotourism sector in line with the development and improvement of people's living standards. To fulfill the need of local people and the world community at large, the department has been able to design, build and maintain sustainable recreational forests in the leisure and recreational facilities.

2. METHODOLOGY

2.1. Study Site

The Bukit Nanas Recreational Forest which is situated in the center of Kuala Lumpur, Malaysia was chosen for this research. Since the stated objective of this study was to examine the perception of foreign tourists on recreational forest, the selection of this study site was deemed necessary in order to get the targeted sample size of the respondents. Located adjacent to a major tourist attraction – the KL Tower, this recreational forest is frequented by many foreign visitors either through means of a packaged tour or on their own. This is one of the oldest forest reserve in Peninsular Malaysia and currently the only lowland Dipterocarp forest in Kuala Lumpur (FDPM, 2012). Apart from its function as amenity forest, this forest was also classified as both Education and Research Forest, where there are three nature trails available in this forest, namely the Arboretum Trail, Penarahan Trail and Jelutong Trail (FDPM, 2012).

2.2. Sample and Sampling Technique

This study used the stratified-systematic sampling technique in intercepting visitors at the study site to participate in this study. Stratified sampling uses a pre-determined time frame when collecting the data and systematic sampling was used in choosing every k-respondent entering the recreational forest. Data were collected at two different times which was in the morning (9.00 am-12.00 pm) and in the afternoon (2.00 pm-7.00 pm) for six days during the week. The survey was conducted over four months from May to August 2012 at three survey venues. The surveys were conducted at three main entrances which were Wariseni Gallery, Eco-park and Convent High School. A total of 107 international visitors in the forest were intercepted as respondents and data gathered was subsequently used for analysis and presented in this paper.

2.3. Questionnaire

The quantitative method was chosen for this study and implemented via a survey. The main section contains an evaluation on twenty attributes of recreational forests based on the framework as previously introduced by Lee *et al.* (2010). The questionnaire was also designed to contain 40 statements to assess the foreign visitor's attitude based on the 5-point Likert Scale which was presented as a set of attractiveness statements. Measurement on the 'attractiveness of the recreational forest was made based on are two broad questions which was the evaluation of how important the attribute was in influencing the decision to visit the recreational forest and secondly, an evaluation on the availability of the attribute at the recreational forest. Foreign visitors were asked to express agreement or disagreement based on a five-point scale. Each degree of agreement was given a numerical value from one to five where 1 represents "strongly disagree", 2 represent "disagree", 3 represent "neither", 4 represent "agree" and 5 as "strongly agree". Thus, a total numerical value can be calculated from all the responses. The statements from each broad question were intentionally arranged without following the order of those sections. This was to ensure that the foreign visitors actually read and responded to each of the statements carefully, and not to have answered them without putting thought to it.

Another part was to gather the information of foreign visitor's socio-demographic data, which consisted of gender, type of citizen, age, occupation, income and educational level. Some of the questions are open-ended questions and some of them were close-ended. Close-ended questions are more time-saving for subjects to response and will ease the process of data entry and analysis. The open-ended questions allowed the foreign visitor to follow up in more detail on their answer to the closed-format questions. Even though these kinds of questions were more difficult to be tabulated and analyzed, but they often provide valuable information.

2.4. Data Analysis

Index analysis or mean analysis was used to get the visitors' perceived attractiveness of Bukit Nanas Recreational Forest in influencing their visit and its ability to fulfill their expectation of products on-site. It was one of the analyses that have always been used in destination attractiveness study (Azlizam and Nurul, 2010). The average scores for the twenty statements of attribute would be measured by multiplying the intensity (Si) of individual statements to the number of persons who had the same intensity (Xi). The total from multiplying the Si and Xi will be divided by the total number of sample (N). By totaling the index for each statement and dividing by the number of statements, the average index can be obtained. This can be shown in a general formula as below for each statement:

$$IA = \frac{\sum Si.Xi}{\sum N}$$

Where;

IA = Index for statement
Si = Intensity of persons taking discreet values
Xi = Number of person having intensity preference Si
N = Number of respondents

The overall index of attractiveness can be measured with the formula shown below for an overall statement:

$$I\,oa = \frac{\sum(Ia1+Ia2+Ia3+\ldots\ldots Ia20)}{N}$$

Where;

Ioa = Overall Index Attractiveness
Ia1= Index attractiveness for the attribute of available number 1
Ia2= Index attractiveness for the attribute of available number 2
Ia3= Index attractiveness for the attribute of available number 3
Ia20= Index attractiveness for the attribute of available number 20
N= Number of attributes

3. RESULTS AND DISCUSSION

The responses from the foreign visitors shed light on the attributes which attracted them to the Bukit Nanas Recreational Forest. Respondents (foreign visitor) were asked to identify from twenty attributes which were the most important and the least important in attracting them to visit the forest. Table 2 reports the foreign visitor's choice in determining which attribute is the most important. The percentages showed in Table 2 are based on the number of foreign visitors who felt that the attributes were "strongly important" to them.

As shown in Table 2, the environment view attribute attained the highest percentage of importance (level 5) in attracting foreign visitors to the recreational forest (35.5%). Safety and nature trails came as second highest percentage (34.6%) and followed by fauna as the third highest important attribute (30.8%). The least important attribute chosen by foreign visitor is the special event attributes (3.7%). Meanwhile, barbecue facility gets the second lowest percentage (5.6%), followed by chalet (6.5%). This shows that special event followed by barbecue facility and chalet were less important attributes in their decision to visit Bukit Nanas.

It is possible that the environment view attribute was picked as the most important attribute because Bukit Nanas Recreational Forest is now the only forest reserve situated in the middle of Kuala Lumpur city center. Foreign visitors who visit the forest mostly prefer to enjoy the environment instead of other urban activities such as shopping and city sightseeing (Sharifah, 2002). In contrast, the special event attribute was deemed as a fairly unimportant attribute in influencing foreign visitors to visit the recreational forest. From conversations with the

foreign visitors, most felt that special events conducted *in-situ* will destroy the beauty and cleanliness of the forest, due to the crowding effect (Azlin, 1999).

The same set of attributes were also subjected to the evaluation of "how much Bukit Nanas Recreational Forest was able to offer each attribute" to be experienced by foreign visitors. Table 3 reports the foreign visitor's choice in determining the attribute that is the most available in this recreational forest. The percentage was calculated based on the number of foreign visitors who felt that the attribute was "strongly available".

Table 3 shows the percentage of foreign visitor's answers on which attribute in Bukit Nanas Recreational Forest was available to them. The highest percentage for the most available attribute is flora (40.2%), followed by natural trails (38.3%) and environment view (36.4%). The least available attraction is special event and chalet (3.7%), followed by hostel (4.7%) and historical element and barbecue facility (5.6%).

Paleng (2013) pointed out that the Bukit Nanas Recreational Forest has a rich variety of flora which includes rare herbs, creepers, ferns, climbers, giant bamboo grasses and huge tropical tree species. Generally, foreign visitors come to this forest for this reason, to see diversity of plants. For this reason, flora was perceived to be the most available attribute at this recreational forest. As an easily accessible forest, the Bukit Nanas Recreational Forest is frequented by many foreign visitors, mainly to see what a tropical forest is like. Actually, for any destination marketing organization, the availability of diverse flora in such a forest acts as a 'preview' for other larger ecotourism sites like Taman Negara National Park and Belum Royal State Park.

The index scores for important attractions in the foreign tourist's travel decision to Bukit Nanas Recreational Forest are shown in Table 4. As presented in Table 4, environment view attribute has been perceived as the most important attraction in foreign visitor's travel decision with a score of 4.12. Natural trails appeared as the second most important attraction in their travel decision with a score of 4.02, followed by flora with a score of 3.99. Chalet seems to be the least important attraction in foreign visitor's travel decision (2.23) followed by prayer room (2.25).

As discussed before, most of foreign visitors found on-site indicated that they were mainly attracted to visit the forest for its natural view and to enjoy an easy stroll along the provided forest trails. Chalet, understandably, was not considered important at all since the forest is just a walking distance form their accommodation in the city center. Additionally, at present, there is no accommodation facility provided by the forestry department in Bukit Nanas, although a campsite is in use every now and then during specialized programs conducted in the forest.

Table 5 shows the index scores for the availability of attractions in the Bukit Nanas Recreational Forest as perceived by foreign visitors. As noted in Table 5, the flora attribute has been perceived by the respondents as the most available attribute (with a score of 4.12) in the forest. Interestingly, environment view and natural trails appeared to be the second most available attraction in Bukit Nanas with a score of 4.07. Chalet seems to be the least available attraction in the mind of the foreigners with a score of 2.55 while special event was given a score of 2.57.

Based on our observation, foreign visitors come to the Bukit Nanas Recreational Forest because of the variety of flora found in the forest reserve. It is quite possible that they read and heard about the flora diversity of this forest. In addition, the Bukit Nanas Recreational Forest also has a mini Herbal Park, showcasing many rare herbs from around the world. As noted before, chalets are not available in the Bukit Nanas Recreational Forest, hence it was perceived as the least available attraction by the respondents.

Table 6 shows the calculated index scores for attractiveness and also the differences between mean scores for the importance of each attraction and its availability at the Bukit Nanas Recreational Forest. When compared, the index score between the important attractions and the available attractions did not show much difference. However, based on the ranking, the environment view attribute was the most important attraction in the visitors' travel decision and is the second most available attraction in the Bukit Nanas Recreational Forest. Conversely, flora attributes which was the third most important attraction in the visitors' travel attraction to visit was perceived as the most available attraction in this recreational forest.

4. CONCLUSION

More research on the visitors' perception and evaluation can lead to the rise of solutions in solving some issues which recreational forests face. By using the results and recommendation from these researches, the administrator and manager can identify the weaknesses and try to upgrade the forest. Determining the important attributes can also be the best way in developing the forest. Lee *et al.* (2010) in their research, listed down four important attributes in recreational forests (i.e. tourist attractions, accessibility, amenities and complementary services). These attributes possibly will increase the level of satisfaction among visitors.

Although recreational forest was not the main choice of destination among foreign visitor and ecotourist, these forests have the potential to become ecotourism destinations. In order to market our recreational forests, marketing agencies have to understand the potential market - including how such product (recreational forests) is being perceived by the market (foreign visitors). Despite these results, the study managed to gather some valuable information pertaining to the perception of foreign tourists on the availability of attributes at the recreational forests. Similarly, the foreign tourists also had indicated that the most and least important aspects or attributes in their decision to visit the forests. Such information is vital for managers because it provides some indication on how to improve recreational forests as a place for relaxing and meaningful visits. For example, the study had found special event as the least found attribute in recreational forests. As such, future plan should be made to make our forest more attractive by designing major events without compromising the integrity of the resources. Events like the Rainforest Music Festival or forest challenge could help to increase the visibility of these forests for the international market.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
Contributors/Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

Afriezul, A.R., 2004. Visitors awareness on the conservation of recreation forest: A case study at kanching recreation forest, Rawang, Selangor, undergraduate dissertation. Malaysia: Universiti Putra Malaysia.

Azlin, N.Y., 1999. Environmental setting of three recreation forests and their effects on visitor's perception. Doctoral Dissertation, Universiti Putra Malaysia, Malaysia.

Azlizam, A. and A.Z.A. Nurul, 2010. Destination image: An overview and summary of selected research (1974-2008). International Journal of Leisure and Tourism Marketing, 2(1): 39-55. *View at Google Scholar | View at Publisher*

Baloglu, S. and M. Uysal, 1996. Market segments of push and pull motivations: A canonical correlation approach. International Journal of Contemporary Hospitality Management, 8(3): 32-38. *View at Google Scholar | View at Publisher*

Becken, S. and D.G. Simmons, 2002. Understanding energy consumption patterns of tourist attractions and activities in New Zealand. Tourism Management, 23(4): 343-354. *View at Google Scholar | View at Publisher*

Boo, E., 1991. Ecotourism and resource conservation. Madison: Omnipress.

Buckley, R., 2009. Ecotourism principles and practices. United Kingdom: Cambridge University Press.

Cracolici, M.F. and P. Nijkamp, 2008. The attractiveness and competitiveness of tourist destinations: A study of Southern Italian regions. Tourism Management, 30(3): 336-344.

Diamantis, D., 2004. Ecotourism: Management and assessment. London: Thomson Learning.

Fodness, D., 1994. Measuring tourist motivation. Annals of Tourism Research, 21(3): 555-581. *View at Google Scholar | View at Publisher*

Forest Department of Negeri Sembilan, 2010. Recreational forest. Retrieved from www.ns.gov.my [Accessed 16 November 2010].

Forest Department of Peninsular Malaysia, 2012. Bukit nanas recreational forest. Retrieved from www.forestry.gov.my [Accessed 16 February 2013].

Forest Tasmania, 1994. Guided nature-based tourism in tasmania forest: Trends, constraints and implications. Australia: Forestry Tasmania.

Jin, X., K. Weber and T. Bauer, 2012. Impact of cluster on exhibition destination attractiveness: Evidence from Mainland China. Tourism Management, 33(6): 1429-1439. *View at Google Scholar*

Kwan, K.W., 2006. Visitor's perception on recreational use impacts on soil and vegetation in ulu bendul recreational forest, undergraduate dissertation. Malaysia: Universiti Putra Malaysia.

Lee, C.F., H.I. Huang and H.R. Yeh, 2010. Developing an evaluation model for destination attractiveness: Sustainable forest recreation tourism in Taiwan. Journal of Sustainable Tourism, 18(6): 811-828. *View at Google Scholar | View at Publisher*

Lew, A.L., 1987. A framework of tourist attraction research. Annals of Tourism Research, 14(4): 553-575. *View at Google Scholar | View at Publisher*

MacCannel, D., 1976. The tourist: A new theory of the leisure class. London: University of California Press.

Mayo, E.J. and L.P. Jarvis, 1981. The psychology of leisure travel: Effective marketing and selling of travel service. Boston MA: CBI Publishing.

Paleng, 2013. Bukit nanas recreational forest. Available from http://www.blog.tourism.gov.my [Accessed 16 November 2010].

Ryan, C. and J. Saward, 2004. The zoo as ecotourism attraction: Visitor reactions, perceptions and management implications: The case of Hamilton Zoo, New Zealand. Journal of Sustainable Tourism, 12(3): 245-266. *View at Google Scholar | View at Publisher*

Sharifah, N.A., 2002. Attractiveness of Kuala Tahan National Park as perceived by domestic and international ecotourists. Master Thesis, Universiti Putra Malaysia, Malaysia.

Smit, I. and C.G. Pascut, 2009. The application of general principles in systematization and fitting out recreational forests. Bulletin of the University of Agricultural Sciences & Veterinary Medicine Cluj-Napoca. Horticulture, 66(1).

Tasmania Parks and Wildlife Services, 1999. Tasmanian wilderness world heritage areas: 1999 management plan. Australia: Hobart.

Teller, C. and T. Reutterer, 2008. The evolving concept of retail attractiveness: What makes retail agglomerations attractive when customers shop at them? Journal of Retailing and Consumer Services, 15(3): 127-143. *View at Google Scholar | View at Publisher*

World Wide Fund for Nature (WWF) Malaysia, 1996. National ecotourism plan (NEP). Malaysia: Petaling Jaya.

Ziffer, K.A., 1989. Ecotourism: The uneasy Alliance. Washington DC: Conservation International and Ernst & Young.

Zimmerman, N., 2002. Visitors needs for facilities in Sungai Tekala recreation forest, Selangor, undergraduate dissertation. Malaysia: Universiti Putra Malaysia.

Table-1. Number of visitors at the Bukit Nanas Recreational Forest for the year 2011

Month	Number of local visitors	Number of foreign visitors
January	84	393
February	51	420
March	122	455
April	84	106
May	141	598
June	141	598
July	154	630
August	97	484
September	44	339
October	65	513
November	61	305
December	48	437
Total	1092	5278

Source: FDPM (2012)

Table-2. Attributes important to foreign visitors while visiting the Bukit Nanas Recreational Forest (%)

	Percentage of foreign visitor (n=107)				
Attribute(s)	**1**	**2**	**3**	**4**	**5**
Environment view	0	1.9	19.6	43	35.5
Flora/plant/tree	0	2.8	25.2	42.1	29.9
Fauna/wildlife/insect	0.9	8.4	28	31.8	30.8
Special event	24.3	35.5	25.2	11.2	3.7
Historical element	8.4	18.7	32.7	30.8	9.3
Public transportation	10.3	13.1	32.7	25.2	18.7
Access road	10.3	12.1	31.8	29.9	15.9
Water resource	7.5	15.9	33.6	29.9	13.1
Adventure activity	4.7	16.8	26.2	35.5	16.8
Safety	4.7	4.7	28	28	34.6
Food and beverage	9.3	17.8	38.3	19.6	15
Camping site	23.4	22.4	35.5	11.2	7.5
Barbecue facility	27.1	29.9	29	8.4	5.6
Chalet	34.6	26.2	27.1	5.6	6.5
Hostel	29.9	22.4	25.2	11.2	11.2
Prayer room	44.9	17.8	18.7	4.7	14
Toilet/restroom	5.6	10.3	23.4	37.4	23.4
Natural trails	0.9	3.7	22.4	38.3	34.6
Interpretation signage	8.4	9.3	26.2	29	27.1
Guided program	19.6	15.9	37.4	14	13.1

Notes: 1= mostly not important, 2 = not important, 3 = neutral, 4 = important, 5 = strongly important

Table-3. Availability of attributes at the Bukit Nanas Recreational Forest (%)

	Percentage of foreign visitor (n=107)				
Attribute(s)	**1**	**2**	**3**	**4**	**5**
Environment view	0.9	2.8	20.6	39.3	36.4
Flora/plant/tree	0	2.8	22.4	34.6	40.2
Fauna/wildlife/insect	1.9	5.6	26.2	37.4	29
Special event	18.7	22.4	45.8	9.3	3.7
Historical element	13.1	14	41.1	26.2	5.6
Public transportation	5.6	7.5	33.6	34.6	18.7
Access road	1.9	7.5	34.6	39.3	16.8
Water resource	5.6	11.2	39.3	25.2	18.7
Adventure activity	8.4	13.1	35.5	24.3	18.7
Safety	1.9	6.5	41.1	29.9	20.6
Food and beverage	10.3	20.6	45.8	14	9.3
Camping site	13.1	15.9	45.8	14	9.3
Barbecue facility	15	17.8	48.6	13.1	5.6
Chalet	15.9	16.8	53.3	10.3	3.7
Hostel	16.8	17.8	52.3	8.4	4.7
Prayer room	17.8	15	49.5	9.3	8.4
Toilet/restroom	2.8	6.5	31.8	43.9	15
Natural trails	0.9	2.8	23.4	34.6	38.3
Interpretation signage	2.8	9.3	31.8	29.9	26.2
Guided program	12.1	9.3	51.4	18.7	8.4

Notes: 1= mostly not available, 2 = not available, 3 = neutral, 4 = available, 5 = strongly available

Table-4. Index score for important attributes in travel decision of foreign visitor to visit the Bukit Nanas Recreational Forest, Kuala Lumpur

Attribute	1	s1x1	2	s2x2	3	s3x3	4	s4x4	5	s5x5	TSiXi	SiXi/107
Environment view	0	0	2	4	21	63	46	184	38	190	441	4.12
Flora/plant/tree	0	0	3	6	27	81	45	180	32	160	427	3.99
Fauna/wildlife/insect	1	1	9	18	30	90	34	136	33	1655	410	3.83
Special event	26	26	38	76	27	81	12	48	4	20	251	2.35
Historical element	9	9	20	40	35	105	33	132	10	50	336	3.14
Public transportation	11	11	14	28	35	105	27	108	20	100	352	3.29
Access road	11	11	13	26	34	102	32	128	17	85	352	3.29
Water resource	8	8	17	34	36	108	32	128	14	70	348	3.25
Adventure activity	5	5	18	36	28	84	38	152	18	90	367	3.43
Safety	5	5	5	10	30	90	30	120	37	185	410	3.83
Food and beverage	10	10	19	38	41	123	21	84	16	80	335	3.13
Camping site	25	25	24	48	38	114	12	48	8	40	275	2.57
Barbecue facility	29	29	32	64	31	93	9	36	6	30	252	2.36
Chalet	37	37	28	56	29	87	6	24	7	35	239	2.23
Hostel	32	32	24	48	27	81	12	48	12	60	269	2.51
Prayer room	48	48	19	38	20	60	5	20	15	75	241	2.25
Toilet/restroom	6	6	11	22	25	75	40	160	25	125	388	3.63
Natural trails	1	1	4	8	24	72	41	164	37	185	430	4.02
Interpretation signage	9	9	10	20	28	84	31	124	29	145	382	3.57
Guided program	21	21	17	34	40	120	15	60	14	70	305	2.85

Notes: 1= strongly not important; 2= not important; 3= neutral; 4= important; 5= strongly important
Si= Intensity of persons taking discreet values
Xi= Number of person having intensity preference Si

Table-5. Index score for available attributes in travel decision of foreign visitors to visit the Bukit Nanas Recreational Forests, Kuala Lumpur

Attribute	1	s1x1	2	s2x2	3	s3x3	4	s4x4	5	s5x5	TSiXi	SiXi/107
Environment view	1	1	3	6	22	66	42	168	39	195	436	4.07
Flora/plant/tree	0	0	3	6	24	72	37	148	43	215	441	4.12
Fauna/wildlife/insect	2	2	6	12	28	84	40	160	31	155	413	3.86
Special event	20	20	24	48	49	147	10	40	4	20	275	2.57
Historical element	14	14	15	30	44	132	28	112	6	30	318	2.97
Public transportation	6	6	8	16	36	108	37	148	20	100	378	3.53
Access road	2	2	8	16	37	111	42	168	18	90	387	3.62
Water resource	6	6	12	24	42	126	27	108	20	100	364	3.4
Adventure activity	9	9	14	28	38	114	26	104	20	100	355	3.32
Safety	2	2	7	14	44	132	32	128	22	110	386	3.61
Food and beverage	11	11	22	44	49	147	15	60	10	50	312	2.92
Camping site	14	14	17	34	49	147	18	72	9	45	312	2.92
Barbecue facility	16	16	19	38	52	156	14	56	6	30	296	2.77
Chalet	17	17	18	36	57	156	11	44	4	20	273	2.55
Hostel	18	18	19	38	56	168	9	36	5	25	285	2.66
Prayer room	19	19	16	32	53	159	10	40	9	45	295	2.76
Toilet/restroom	3	3	7	14	34	102	47	188	16	80	387	3.62
Natural trails	1	1	3	6	25	75	37	148	41	205	435	4.07
Interpretation signage	3	3	10	20	34	102	32	128	28	140	393	3.67
Guided program	13	13	10	20	55	165	20	80	9	45	323	3.02

Notes: 1= strongly not available; 2= not available; 3= neutral; 4= available; 5= most available
Si = Intensity of persons taking discreet values
Xi = Number of person having intensity preference Si

Table-6. Comparison between attraction importance and availability

Attribute(s)	Important	Available
Environment view	4.12	4.07
Flora/plant/tree	3.99	4.12
Fauna/wildlife/insect	3.83	3.86
Special event	2.35	2.57
Historical element	3.14	2.97
Public transportation	3.29	3.53
Access road	3.29	3.61
Water resource	3.25	3.4
Adventure activity	3.43	3.31
Safety	3.83	3.61
Food and beverage	3.13	2.92
Camping site	2.57	2.92
Barbecue facility	2.36	2.77
Chalet	2.23	2.69
Hostel	2.51	2.66
Prayer room	2.25	2.76
Toilet/restroom	3.63	3.62
Natural trails	4.02	4.07
Interpretation signage	3.57	3.67
Guided program	2.85	3.02

Source: FDPM (2012)