

## USERS' NEEDS AND EXPECTATIONS OF URBAN RECREATIONAL FORESTS IN SELANGOR, MALAYSIA

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### Graphical abstract



### Abstract

**Background:** Forests or woodlands provide ecosystem services including provisioning services, cultural services, regulating services and supporting services. Recreational forests in Peninsular Malaysia areas are for recreation, research and development, and for economic benefit. **Objectives:** This paper examines users' needs and expectations of recreational forests in Selangor, Malaysia in relation to the maintenance and management aspects. **Results:** The results indicate that the respondents have various expectations related to their needs. The respondents will come more often if more facilities, activities and security provided. **Conclusion:** The recreational forest management should consider the users' needs and expectations in planning programs, managing and designing future recreational forests so that potential users will feel comfortable when visiting the area. Therefore, to have frequent visits, it is important to enhance the users' experience in the forest. Cultural aspects, gender and age of Malaysian users' are factors to be taken into account in ensuring a sustainable use of recreational forest.

**Keywords:** Use of recreational park, maintenance, gender, age

### Abstrak

**Latar belakang:** Hutan menyediakan perkhidmatan ekosistem termasuk perkhidmatan peruntukan, kebudayaan, perkhidmatan mengawal selia dan perkhidmatan sokongan. Hutan rekreasi di kawasan Semenanjung Malaysia adalah untuk rekreasi, penyelidikan dan pembangunan, dan untuk kepentingan ekonomi. **Objektif:** Kertas ini mengkaji keperluan dan jangkaan pengguna hutan rekreasi di Selangor, Malaysia berhubung dengan penyenggaraan dan pengurusan aspek pengguna. **Dapatan:** Hasil kajian menunjukkan bahawa responden mempunyai pelbagai jangkaan yang berkaitan dengan keperluan mereka. Responden akan datang dengan lebih kerap jika lebih banyak kemudahan, aktiviti dan aspek keselamatan disediakan. **Kesimpulan:** pengurusan hutan rekreasi harus mengambil kira keperluan dan kehendak pengguna dalam program perancangan, mengurus dan mereka bentuk hutan rekreasi masa depan supaya pengguna yang berpotensi akan berasa selesa apabila melawat kawasan itu. Oleh itu, untuk mendapatkan kekerapan kunjungan, ia adalah penting untuk meningkatkan pengalaman pengguna dalam hutan. Aspek budaya, jantina dan umur pengguna Malaysia adalah faktor-faktor yang perlu diambil kira dalam memastikan penggunaan lestari hutan rekreasi.

**Kata kunci:** Penggunaan taman rekreasi, penyenggaraan, jantina, umur

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## 1.0 INTRODUCTION

This paper discusses the Malaysian expectations of recreational forests in light of recreational forests planning, design and management. The maintenance and management aspects are the crucial aspects in determining good recreational experience in the forests. Nowadays, non-productive aspects of forest, as well as the socio-cultural and environmental aspects are considered in multifunctional forest planning [1]. Therefore, it is important for recreational forests management and policy makers to identify the users' needs and expectations of recreational forests to offer quality services.

Forests or woodlands provide ecosystem services including provisioning services, cultural services, regulating services and supporting services [2]. The benefit of forest to the health and well-being [3] of the urbanites has been acknowledged by researchers. The nature contributes to environmental health such as clean air and flood prevention, direct economic benefit [4], improvement of emotional states [5] and relief from stress [6]. In addition, connection to nature will enhance a person's experiences of natural landscapes [7]. Despite the forest benefits mentioned earlier, there are many problems related to recreational forest areas in Malaysia that might deter users. These problems include vandalism, poor accessibility, perceived insecurity and lack of management leading to poor quality of facilities [8]. Md. Som and Yiew [9] described these problems thus: "There were few problems related to management done by irresponsible users such as: a) vandalised basic facilities or infrastructure; b) dirty the area with rubbish; and c) misused facilities provided such as cutting trees, set up fires in open space, table and bench used for cooking place" (p. 87). Goh [10] claimed that poor maintenance of public open spaces and parks in Malaysia will lead to a decline in the number of visitors.

Recreational forests in Peninsular Malaysia offer basic facilities for various ranges of communities, to encourage people to explore the beauty of the forest, as a research and development areas and for economic purposes such as ecotourism. The recreational forests are distinctive in with natural waterfalls or streams. There are usually sited at the foothills, at periphery of urban areas and easy to access by public transport such as bus and personal vehicles [11].

## 2.0 LITERATURE REVIEW

The concept of recreational forests differs from urban forests concept in terms of their main characteristics and whether they are located in non-urbanised areas or in the urban periphery in scenic areas close to spectacular or unique natural features such as

mountain/hill peak, river/waterfall, water catchment/reservoir/lake, islands, coastal area, mangrove and hot spring pool [12]. On the other hand, urban forests are implemented in urban areas to provide greenery, comfort and aesthetic benefits, and also to balance the impact of the built development. The objectives are to beautify the surrounding views; provide shade and green urban areas; be a buffer area to reduce air and noise pollution; balance the hydrology cycle; prevent soil erosion in the neighbourhood; provide a habitat to attract birds and insects; and as a source of timber and fruit [12]. In general, the urban forest, or as it is sometimes called the urban amenity forest, is a concept that encompasses the landscape or vegetation of a city [13], [14].

In Peninsular Malaysia, recreational areas were developed by the State Governments with technical assistance from the Parks and Recreation Division of the National Forestry Headquarters, Kuala Lumpur [15]. In addition, local authorities and some corporations in the private sector such as the Selangor Tourism Sdn. Bhd. are also involved in managing and developing some recreational forests in Peninsular Malaysia [16].

## 3.0 METHODOLOGY

There are four types of methods that used in this study to obtain the relevant data which are literature review, observation, interview and questionnaire. However, in this paper only relevant result from the interview and questionnaire is presented.

### 3.1 Selecting Case Studies

Situated at urban periphery, the Ampang and Kanching Recreational Forests were selected as case studies. The sites share similar characteristics such as accessibility, size and water elements as attractions.

### 3.2 Interview

In depth semi-structured interviews were conducted with both recreational forest users (Malay, Chinese and Indian). It was conducted concurrently with the questionnaire survey. Overall, 40 interviews were conducted.

### 3.3 Questionnaire

A self-administered questionnaire was conducted to in the areas. The questionnaire used a bipolar Likert scale from 1 (Strongly disagree), 2 (Disagree), 3 (Not sure), 4 (Agree) and 5 (Strongly agree). The questionnaire was divided into six sections (Section 1 - Visit to the Recreational Forest, Section 2 - Attitudes towards Physical Features, Section 3 - Motivations for Using the Forests, Section 4 - Feelings while being in the Forest, Section 5 - Expectations towards the Forest

and Section 6 - Demographic Information). Overall, 413 forest users were surveyed [17].

#### 4.0 RESULTS AND DISCUSSION

The data collected from the questionnaire will be analyzed and discussed and supported by the interview result. Table 1 shows the rating of expectations.

In general, the respondents had the highest level of agreement with the statement in the questionnaire that they would visit more often if "more facilities such as shelter areas, dustbins etc. were provided". The facilities indicated were the basic facilities normally provided by forest management including the toilet. A male at Ampang Recreational Forest said:

"Facilities. There are no facilities, toilets [not enough]; there are no jungle tracks, no other activities. Toilet cannot be used, leaking".

About 88% would like "the activities areas to be kept in better and tidier condition". Based on the interview are the areas were not tidy due to rubbish, food residues that had been left by users. Several interviewees dislike looking at abandon of dried leaves at some areas in the recreational forests. A female user at Ampang Recreational Forest said:

".... The cleanliness is important, everywhere, the cleanliness is important! Maintain the areas well, don't let the leaves too much, look at the front areas, they are thicker [the dried leaves]".

The perception may relate to the respondents' cultural background where it was expected that the recreational forests should look as clean as their homes.

About 81% would like to have "more facilities for people with disabilities", 83% would like to have "more signage to give guidance/directions" and 84% would like to have "guardrails/railings were provided at steep sections of pathway/trails" due to the physical environment of the recreational forests including steep areas. There is a possibility of feeling that they will get lost if there is lack of signage to guide them.

About 78% of the respondents would like to have more parking. About 76% would like more nature trails and forest rangers walking around because some interviewees especially women will feel secure, also to ensure there are no immoral behaviors which are against cultural norms occurred in the recreational forests. A Chinese female in Ampang Recreational Forest said:

"If possible, there is another guard house at the center. Because at the end part, they have at the reservoir there are workers but at the center, nobody guard the area. .... I have always seen a male and a female sitting, [she is mentioning their immoral behaviour]. When there is no guard, they do such thing [behaviour] regularly".

Another Chinese female said:

"Here, ... there is no rangers, if we [get] lost who want to search for us?".

**Table 1** Rating of Expectations (Level of agreement in the "agree" and "strongly agree" categories have been combined)

Questionnaire Items		Level of agreement (%)
<b>Section 5</b>		<b>Above 80%</b>
Q9	More facilities such as seating, shelter areas, dustbins etc. were provided	373 (90.4)
Q3	The activities areas were kept in better and tidier condition	360 (87.6)
Q10	Guardrails/railings were provided at steep sections of pathway/trails	344 (83.7)
Q8	More signage to give guidance/directions	340 (82.5)
Q11	There were more facilities for people with disabilities	331 (80.5)
		<b>71% to 80%</b>
Q2	More parking spaces were provided	322 (78.1)
Q4	There were more nature trails through the forest	315 (76.4)
Q5	Forest rangers were walking around the forest	311 (75.7)
Q7	There were health activities organized by the forest department	311 (75.5)
Q6	Different pathways were provided for joggers and pedestrians	292 (70.9)
		<b>Fewer than 60%</b>
Q12	There were more opportunities to be alone	227 (55.4)
Q1	I was able to participate in organized litter picking	219 (43.2)

The urban recreational forests are used for activities related to health such as jogging and jungle trekking. Six male interviewees came to do exercise such as tai-chi, cycling, jogging and for fitness and health purposes such as an early thirty, Malay male in Kanching Recreational Forest said:

"Today I come to strengthen my leg by climbing up the hill. Actually it is more to build up the stamina, for health and to balance back my weight (to get back his ideal weight). .... When I have time, I come for exercise".

Therefore, 76% of respondents expected to have "health activities organized by the forest department".

Sometimes there were some conflicts among pedestrians and joggers so they would also like to have different pathways for joggers and pedestrians.

About 55% of the respondents agreed if "there were more opportunities to be alone". This is the case where some users wanted to be 'being away-from' as an important motivation for them to have desired

privacy in urban forests/parks [18]. A Chinese male in Kanching Recreational Forest said:

"...to get away from the city lifestyle. Because we worked in KL, very hectic....So forest is just you...can get away from those things."

About 43% of the respondents would like "to participate in organized litter picking" where it shows that some of the respondents had a sense of awareness towards the condition of the recreational forests. There is also probability that they are pro-environmentalist type of people.

Further analyses were also conducted to test for correlations between the "Expectations towards Recreational Forest" items (Q1 to Q12) and gender, age and ethnicity. The Mann-Whitney test was used for gender, the Kruskal-Wallis test was used for ethnicity and Spearman's Correlation was used for age. There were no significant differences between gender and expectations towards recreational forest items. It means both male and female are sharing similar expectations towards the recreational forests.

The "Expectations" items were explored to determine correlations between these items and the age of the respondents'. Table 2 shows that there is a negative correlation between the age of the respondents and the item "health activities organised by the forest department". This means that a younger respondent's such as teenagers and younger adult, he/she becomes more enthusiastic about "health activities organised by the forest department" compared to elderly respondents.

**Table 2** Correlations between expectations towards the recreational forest and age groups

Expectations towards the recreational forest and age groups	Test used	Results	P value
Health activities organised by the forest department	Spearman's rho	- 0.138	0.005**

\*\*Correlation is significant at the level 0.01 level (2-tailed)

## 5.0 CONCLUSION

The results show that users have various expectations according to their needs. They used the recreational forests for physical and social activities as well as personal place to experience. There is a need for security measures to make people more secure and comfortable being in the forests. The forest management should consider the users' needs and expectations in planning programs, managing and designing future recreational forests to increase attraction and frequent visits. Enhancing users' experience in the urban recreational forests also requires understanding on the users' culture, gender and age. This will be a step further in ensuring a sustainable use of urban recreational forest in Malaysia.

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