Study Of Staff’s Perspectives On Environmental Issues in Kinabalu Park, Sabah

Normah Abdul Latip and Nadiatul Sarah Muhammad Rais

School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia.

Address For Correspondence:
Normah Abdul Latip, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia.
E-mail: norma_abdlatip@usm.my

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ABSTRACT

Kinabalu Park is located about 90 km from Kota Kinabalu city in the East Malaysian state of Sabah where the Mount Kinabalu lies. Nowadays, the issues and problems faced at the Kinabalu Park, including the environmental issue and degradation, carrying capacity and organization of the staff. This study was focusing on the environment issues based on the staff’s perspective. This exploratory study employed a semi-structured face-to-face in-depth interview. The respondent involved 10 staffs that work in different organisations in Kinabalu Park. The interview was designed to identify recent issues and problems faced by the staffs working at Kinabalu Park in different organisation such as Sabah Parks, Sutera Sanctuary Lodge, PEMANGKINA, KOKTAS, and Mountain Torq. Kinabalu Park, Sabah is declared by UNESCO as Malaysia’s first World Heritage Site in 2000. In order to maintain its status, the park management have to make sure that all of the staffs are aware of their responsibilities towards the sustainability of Kinabalu Park.

Key words: Kinabalu Park, Carrying capacity, conservation

INTRODUCTION

The National Park category is one of the most common and well known classifications of protected areas. Those areas are frequently used for the developing of nature-based tourism, recreation and outdoor activities [1]. National park is very close related with nature-based tourism, being a symbol of a high quality natural environment with a well-designed tourist infrastructure [3]. The management categories of the protected areas are based on the primordial objective or purpose of what the area is made for. Kinabalu Park is classified into Category II (National Park). Table 1 shows the list of management objectives for category II (National Park)

<table>
<thead>
<tr>
<th>Management objective</th>
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<tbody>
<tr>
<td>- Preservation of species and genetic diversity (biodiversity).</td>
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<td>- Maintenance of environmental services.</td>
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<td>- Tourism and recreation</td>
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<td>- Scientific research</td>
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<td>- Wilderness protection</td>
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<tr>
<td>- Protection of specific natural or cultural features</td>
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<tr>
<td>- Education</td>
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<tr>
<td>- Sustainable use of resources from natural ecosystems</td>
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Table 1: List of management objectives for category II (National Park)
Overview Of The Concept:

Conservation is the act of preserving, guarding or protecting the biodiversity, environment, ecosystem and natural resources by management. Mount Kinabalu is diverse with flora and fauna species and it is one of the attractions for the visitor to come there, so to maintain the attraction of that place, conservation must be done and sustainable tourism is implemented. Sustainable tourism based on United Nation World Tourism Organization (UNWTO) is development guidelines and management practices are applicable to all forms of tourism in all types of destination, refer to the environment, economic and socio-cultural aspects of tourism development and suitable balance must be achieve to guarantee its long term sustainability. Furthermore, it is also attempting to make a low impact on the environment and local culture, while helping to generate income.

The term of carrying capacity represents the maximum number of tourists accepted in one area and if this number exceeds, the frequent damage would come into the natural environment [5]. There are three factors of living within the limits of an ecosystem; first, the amount of resources available in the ecosystem second is the size of the population and third is the amount of resources each individual is consuming. Carrying capacity can contribute to managing tourism on the sustainability principles [6]. Kinabalu Park is located about 90 km from Kota Kinabalu city in the East Malaysian state of Sabah where the Mount Kinabalu lies. The park covers an area of 754 km$^2$, ranging altitude from about 450 m up to about 4000 m summit of Mount Kinabalu [8]. Mount Kinabalu with the height of 4,095.2 m is a hotspot area of the flora and fauna biodiversity because it consists of various types of plant and organism species with affinities to flora and fauna from the Himalayas, China, Australia, Malay Peninsula, as well as pan-tropical region [7]. Kinabalu Park also has a beautiful mountainous landscape that attracts the visitors to enjoy the scenery. Mount Kinabalu has the greatest number of plant species, for its size in the world. In the area about 30 by 40 kilometres more than 5500 plant species have been recorded, including nearly 900 orchid species. The various type plants are ascending through lower montane forest to sub-alpine zones. Due to the high amount of endemic species of flora and fauna which can be found only within Kinabalu Park, it is been declare as Malaysia’s first World Heritage Site in 2000. Figure 1 shows the biodiversity in Kinabalu Park

Fig. 1: Biodiversity in Kinabalu Park

One of the objectives of Kinabalu Park is to share the experience in conducting scientific research and ecotourism activities to unleash park potential for sustainable growth in Sabah. Since 1964, Sabah Park had been managed under Kinabalu Park until now. Private sector that is Sutera Sanctuary Lodge (SSL) was introduced at Kinabalu Park in 1998 to take over the management of the tourism facilities such as accommodation, restaurant and souvenir shop. There is another group a Multipurpose Cooperative of Sabah Parks Staff (KOKTAS) that in charge the transportation facilities. KOKTAS has been managing the transportation services, which transfer climbers from the reception office to Timpohon Gate which is the starting point for the climbers since 1987. KOKTAS also manage a restaurant and lodge just outside the Park HQ gate. Persatuan Malim Gunung Kinabalu (PEMANGKINA) in charge for the visitor’s guide of mountain climbing since it the activity started. While in 2007, another private company, Mountain Torq manage the tourist activity at the top of Mount Kinabalu. Another activity was introduced to the visitor of Kinabalu Park, Via Ferrata at the height of 3,200 metre to 3,776 metre on the Mount Kinabalu. It is the world’s highest Via Ferrata in a UNESCO World Herigate Site, Mount Kinabalu.

At Kinabalu Park, there are a few organisation that handle different responsibilities in order to make sure the tourism activity is smooth for the visitors. The staffs from different organisations has encounter with different problem and has their own opinions on the environmental issues. The purpose of this paper is to gain the staff perspective from different organisations on the environment issue or degradations, carrying capacity and problems their faced while working at Kinabalu Park. Figure 2 demonstrates the map of Kinabali park
**Methodology:**

This is an exploratory research on understanding the staff’s perspectives. The study is to probe into the depth of respondent’s thoughts and to extract the data that are grounded in the field. In-depth interview is commonly used to determine individual’s perceptions and opinions. The method is described as a ‘conversation with a purpose’. Similarly, Kvale [9] also states that interviews are conversations, and defines qualitative interviews as ‘attempts to understand the world from the subjects’ points of view to unfold the meaning of people’s experiences, and uncover their lived world prior to scientific explanations. Three important characteristics of the qualitative method are: (1) Most of the data are in the forms of written and spoken words, and observation; (2) There is no direct numerical interpretation in qualitative data; and (3) The motive in the qualitative method is often [11].

The qualitative method is used to collect data through 10 in-depth interviews with the staff that work in Kinabalu Park. The respondents are consist of three Sabah Parks staffs, three Sutera Sanctuary Lodge staffs, two mountain guides (PEMANGKINA), one KOKTAS staff and one Mountain Torq staff. The interview is around 30 minutes to 45 minutes, allowing the interviewees to identify and talk more on issues in Kinabalu Park.

Data analysis in the qualitative research starts with collecting the required information from the field and sorting it into categories. The information received is formatted into a story, and finally written into a report [2]. Several advantages of in-depth interviews have been identified. These include exploring the boundaries of a problem, obtaining evidence for a particular problem or issue, evaluating potential solutions and managing the research process [11]. Thus, the main role of the in-depth interviewer is to explore the respondents’ points of view, feelings and perspectives.

**RESULTS AND DISCUSSION**

The findings of issues by the staffs are shown in table Table 2 below. It focuses on three issues which are environmental issue and degradation, carrying capacity and the staff’s problem.

**Table 2:** The issues obtain from the staffs

<table>
<thead>
<tr>
<th>Issues which emerged from staff</th>
<th>Informant responses</th>
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<tr>
<td>Environmental issue and degradation</td>
<td>Lack of cooperation from the villagers (Interview informant 1)</td>
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<td>Population of dandelion species increasing (Interview informants 3, 4, 10)</td>
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<td></td>
<td>Littering (Interview informants 1, 6, 7, 8, 9, 10)</td>
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<tr>
<td></td>
<td>Plucking the flowers and plants (Interview informants 1, 4, 7, 8, 9, 10)</td>
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<tr>
<td></td>
<td>Garbage accumulations and bad smell (Interview informants 1, 6, 7, 9)</td>
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<td></td>
<td>Exposed roots</td>
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Environmental and Degradation Issues:

According to the interview response, the park management did not get enough cooperation from the villagers that live surrounding the Kinabalu Park boundary. This can be evidenced in the following responses:

“There are some of the villagers that enter the park illegally and take valuable plant such as orchids and some are for hunting. Some of the villagers are ask by outsider people for illegal international trading to do the work for them because the villagers own well the surrounding “(Interview informant 1).

This implies that some villagers are not cooperative with the park management. This is due to they still go in and out without any permission.

The dandelion that are found almost everywhere in Kinabalu Park had been an issue for the park since 1998 or 1999 when it first being notice [10]. Dandelion is a common weed from Northern Hemisphere and it is a tenacious species where they can either propagate through its roots or seeds dispersed by the wind. That is why this weed is also abundant in population at area 3,350m high on the mountain. The park management are uncertain on how the species ended up in Sabah but maybe it could be the dandelion seeds accidently tag on the visitor shoes or bags from foreign lands. The plants are dominating Kinabalu Park at the same time killing the native species. This can evidence as:

“The dandelions is a concern for the park because the population is increasing and after the elimination of the plant, it still growing. I had joined the elimination of the dandelion to clear it up” (Interview informant 3).

“Everywhere you walk in the park area or climb up the mountain you can see these dandelions” (Interview informant 4).

“This programme eliminating dandelions had been ongoing since it was found here. The number of this weed is increasing and its killing the local plants” (Interview informant 10).

Almost in every visitor’s attraction, the main problem occurs is littering even though there are rubbish bin being prepared. The walking and summit trails, drainage, river banks and places that are always crowded with visitor, litter occur. According to interview informants 7 and 8, “There is always rubbish along the summit trail, so I will help to pick it up during climbing up or going down. Some of the climbers also help if they saw any rubbish”. Another interview informant 9 expressed, “Some visitors just throw rubbish where ever they want. There are rubbish bins prepared but they do not want to use it”.

Kinabalu Park is a protected area so supposedly the plants and animals cannot be disturbed but the interview informant 8 said that, “I see some visitors plucked the flowers and disturb the plants in the park area”.

Most of the interview informants mentioned that there is garbage accumulation at some of the bins especially during peak seasons. Moreover, there is also rubbish being thrown in the drains or in the rivers. The trails for mountain climbing and also for hiking a few of the roots are exposed due to soil erosion.

“Many visitors walk at the trails every day so some of the plant roots are exposed. The soils become lose” (Interview informant 9).

Carrying Capacity Issues:

Kinabalu Park is open throughout the year and there is no restriction on the number of visitors coming to the park per day. There is only carrying capacity for the climbers and visitor who stay overnight in the park because it is determined by the accommodation capacity at the overnight shelters for the climbers and rooms available near the park HQ for the visitors. For the visitors that only come for a day visit, there is not limit. Accommodation capacity as a determinant of carrying capacity is not a viable solution because if overcapacity, soil erosion will occur especially during monsoon seasons [4]. A multi-disciplinary scientific approach is required to determine carrying capacity.
Based on the interview done, they are a few of them said that Kinabalu Park is overcrowded or exceed its carrying capacity and some of them said no. According to interview informant 4, “Sometime and during school holidays, there are so many people until the cars cannot move and no parking available. When the rooms are fully booked, the visitors still asking if there is any room available left”. Another interview informant 6 said that, “some of the trails the roots are exposed and soil erosion occur because of too many visitor walk through the trails. Mostly the short distance trails”. Some of them said that the park do not exceed its carrying capacity. This can be evidenced in the following quotes:

“It is not exceeding because of the limited room for climbers. So, if there is no more room they cannot climb” (Interview informant 2).

“Not every day the park is crowded with visitors. Usually only when there is holidays” (Interview informant 5).

Staff’s Problem:

In order to give new knowledge or information and at the same time to promote Kinabalu Park, the all the staff must know at least briefly about the park such as the history, the what they can enjoy in the park, the flora and fauna, and the physical features. This is due to some of the staffs did not really know what is the park speciality. Most of them just know about the Mount Kinabalu but cannot explain in details. The issue can be supported by following responses:

“A few visitors ask about what they can do in park area and I do not really know what to ask to them” (Interview informant 5).

Visitors ask many questions about Kinabalu Park but I cannot answer most of it” (Interview informant 9).

“Most people come here just to see the Mount Kinabalu and enjoy the scenery. Even for me, I do not really know about the flora and fauna that special to the park” (Interview informant 10).

According to interview informant 1, “Some of the visitors ask for scientific names for certain plant and also why the Kinabalu Park so diverse. “I just know the common name”. Another interview informant 3 expressed that, “They even ask about the factors threatening flora and fauna or what are the species that are endangered or endemic. The visitors ask a lot of questions but we do not know much”. The visitors sometimes ask any staffs that they meet in park and some of them are not really have the information that they are being asked.

Kinabalu Park is the first Malaysia World Heritage Site but not all of the staffs know why exactly the park is declared by that status. So when there are some of the visitors are asking them, the staff cannot really explain to the visitors and unconsciously the visitors will feel unsatisfied.

There are interview informants that mentioned about the park regulations. This can be evidenced in the interview informants 9 and 10 responses, “I know the basic rules such as cannot litter or disturb any plants or animals. Is there any other rules that I suppose to know?”

Conclusion:

Overall, this study explored the staff’s perspectives on the environment issue, carrying capacity and problem faced at Kinabalu Park, Sabah. Due to the biodiversity richness in Kinabalu Park, the environmental issue must be management and also monitoring must be done from time to time to ensure that the human disturbance to the fragile ecosystem is kept at a minimum. The determination of carrying capacity of the park by accommodation capacity has no scientific basis because it based on the number of rooms available. This might harm the environment on the long term basis if there is more tourism demand due to the expansion of physical facilities. A multi-disciplinary scientific approach needs to be adopted to ascertain the carrying capacity.

Although they work for different organisations, they have almost the same opinion and only a few that differ. Kinabalu Park is under the management of Sabah Parks, so the park management can help to solve this staff’s problem such as give them training to all staffs working at Kinabalu Park not only the Sabah Parks staffs. It is important to give training to the staffs in national park to ensure that the daily operation, management and maintenance duties are handle efficiently by them. Consequently, the other organisation’s staffs can help Sabah Parks with raising awareness and to promote Kinabalu Park speciality to the visitors. Plus, enhance the park management capacity and efficiency in a long period. The efforts to support conservation in a protected area become meaningless if they are not accompanied by appropriate staff training programs.

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