

**KLIAS PEAT SWAMP FOREST RESERVE: ITS
POTENTIAL AS A NATURE TOURISM SITE
FROM THE PERSPECTIVE OF LOCAL
COMMUNITIES**

NOORAINI @ SUNARTI BINTI MAKLADIN



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**INSTITUTE FOR TROPICAL BIOLOGY AND
CONSERVATION
UNIVERSITI MALAYSIA SABAH
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**THESIS SUBMITTED IN FULFILLMENT FOR
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JUDUL : KLIA PEAT SWAMP FOREST RESERVE: ITS POTENTIAL AS A NATURE TOURISM SITE FROM THE PERSPECTIVE OF LOCAL COMMUNITIES.

IJAZAH : SARJANA SAINS DALAM PELANCONGAN ALAM SEMULAJADI

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DECLARATION

The materials in this thesis are original except for quotations, excerpts, summaries and references, which have been duly acknowledged.

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ABSTRACT

KLIAS PEAT SWAMP FOREST RESERVE: ITS POTENTIAL AS A NATURE TOURISM SITE FROM THE PERSPECTIVE OF LOCAL COMMUNITIES

The Klias Peat Swamp Forest Reserve (PSFR) is one of the two remaining peat swamp forests in Sabah with an area of 3630 hectares and composed mainly of mixed peat swamp forest. It has been gazetted as Class 1 Forest Reserve and was surrounded by human settlements. The objectives of this study were: (i) to identify the potential nature tourism products of Klias PSFR, (ii) to study the local community perceptions on nature tourism and (iii) to recommend potential nature tourism activities that can be developed. Currently, there were no tourism activities done within the forest reserve and its surrounding areas. Nature tourism in Klias PSFR is a good match for biodiversity conservations and rural developments as it can improve the quality of life and conserve the natural resources. The study was carried out in six stages which includes formulating the study goals and objectives, site survey and inventory of potential tourism products. In term of studying local community perceptions, the questionnaire survey method was used and the data was analysed using SPSS software. Klias PSFR offers numerous attractions including flora, fauna and landscape. There were more than 100 species of plants in Klias PSFR, five taxa of fauna including six species which are indicator species related to the peat swamp forest type habitat and also four types of scenic landscape. Majority (90.43%) of the local community knew what nature tourism is and willing to participate in it. They (96.81%) also agreed that nature tourism is a good approach to improve their living condition in Klias PSFR. In Klias PSFR, several nature tourism activities could be developed especially environmental education, nature interpretation, adventure activities and wildlife observation to educate and entertain local or foreign tourists.

Keyword: Nature tourism, nature tourism products, perceptions, tourism activities.

ABSTRAK

Hutan Simpan Paya Gambut Klias adalah salah satu daripada hutan paya gambut yang terdapat di Sabah dengan keluasan 3630 hektar. Hutan ini merupakan hutan paya gambut campuran. Ia telah diwartakan menjadi Hutan Simpan Kelas 1 dan dikelilingi oleh kawasan perumahan di sekitarnya. Objektif kajian ini dijalankan adalah: (i) untuk mengenalpasti produk-produk pelancongan alam semulajadi yang berpotensi di Hutan Simpan Paya Gambut Klias, (ii) mengkaji persepsi penduduk kampung mengenai pelancongan alam semulajadi di hutan simpan Klias dan (iii) untuk mencadangkan aktiviti-aktiviti pelancongan alam semulajadi yang berpotensi untuk dibangunkan. Pada masa ini, tiada aktiviti pelancongan dibuat di hutan simpan Klias dan kawasan sekitarnya. Pelancongan alam semulajadi di Hutan Simpan Paya Gambut Klias adalah suatu padanan yang baik untuk pemuliharaan kepelbagaian biologi dan pembangunan luar bandar kerana ianya boleh memperbaiki kualiti hidup dan memulihara sumber-sumber semulajadi. Kajian ini dijalankan melalui enam peringkat yang merangkumi pembentukan objektif dan gol kajian, survei ke kawasan kajian dan inventori produk-produk pelancongan yang berpotensi. Manakala, untuk mengkaji persepsi penduduk, kaedah soal-selidik digunakan dan data yang diperolehi dianalisis menggunakan perisian SPSS. Hutan simpan ini menawarkan banyak tarikan pelancongan termasuklah flora, fauna dan lanskap. Terdapat lebih daripada 100 spesies flora dalam hutan simpan Klias dan sekitarnya, lima takson fauna termasuklah enam spesies yang menjadi penunjuk kepada habitat jenis hutan paya gambut dan empat jenis lanskap yang menarik. Sebahagian besar (90.43%) daripada penduduk kampung mempunyai pengetahuan mengenai pelancongan alam semulajadi dan berminat untuk terlibat dalam aktiviti ini. Mereka juga berpendapat bahawa pelancongan alam semulajadi adalah satu pendekatan yang baik untuk meningkatkan taraf hidup dengan peratusan sebanyak 96.81%. Dalam Hutan Simpan Paya Gambut Klias, pelbagai aktiviti pelancongan alam semulajadi berpotensi untuk dibangunkan terutamanya pendidikan alam sekitar, interpretasi alam semulajadi, aktiviti-aktiviti lasak dan aktiviti pemerhatian hidupan liar untuk pelancong-pelancong dari dalam dan luar negara.

Kata kunci : Pelancongan alam semulajadi, produk pelancongan alam semulajadi, persepsi, aktiviti pelancongan.

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LIST OF ABBREVIATIONS/SYMBOLS

PSFR	Peat Swamp Forest Reserve
Sg.	River (sungai)
Kg.	Village (kampung)
RM	Malaysian Ringgit
kg	kilogram
m	metre
km	kilometre
sp.	species
%	Percentage



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CHAPTER 1

INTRODUCTION

1.1 General

Nowadays, tourism is one of the growing sectors of the global economy. The industry has experienced a rapid growth in this century and Southeast Asia is one of the important and fastest growing tourist destinations in the world (Wong, 1998). In Malaysia, tourism has started as early as 1980s (Peters, 1999). With high quality tourism products such as multi-races and cultures, national parks, forest reserves and protected areas, tourism has become the second biggest income generating industry in Malaysia in the year 2000 (Tourism Malaysia, 2001).

Tourism may be defined in many ways according to the underlying purpose of the definition. There are some general accepted aspects in defining tourism. The first aspect concerns purpose or motivation of the visit, and the second element concerns time, that stresses important differences between day trips and voyages that involve overnight stays (Hall, 1995).

The term nature tourism has been defined as travel to natural areas and participation in nature-related activities without degrading the environment and preferably promoting natural resource conservation (Wong, 1994). Nature tourism can also be best defined as travelling to relatively undisturbed natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals (Boo, 1990; Wong, 1994).

The term nature tourism and ecotourism have been used interchangeably (Maryati *et al.*, 2000). In contrast to nature tourism which is defined as travel for the purpose to enjoy undeveloped natural areas, ecotourism is low impact nature tourism which contributes to the maintenance of species and habitats either directly through a contribution to conservation and/or indirectly by providing revenue to the community.

In realisation of high value of tourism products in certain area will make the place have the potential to be promoted as a new tourism site. In this context, the word potential is refer to existing possibility which is capable to be develop as a tourism site. For instance, Lower Kinabatangan area is once a local settlements with majority of its population is doing small-scale agricultural activities and fishing, but nowadays, it has become one of the major tourism attraction in Sabah because of the people have realized that biodiversity in their place have the potential to develop and carrying out the tourism activities. In relation with this, study of nature tourism potential in Klias PSFR is feasible because of the high value of biodiversity and other natural resources makes this place capable to be develop as a new tourism site.

Nature tourism, to be successful, must promote sustainable development. Sustainable tourism development meets the needs of tourist and host regions to protect and enhance the opportunity of future. Along with recent thinking on sustainable development, as well as appropriate and low impact tourism, the concept of carrying capacity management creates the notion of an approach to tourism that permits it to grow within acceptable limits. On one hand tourism industry can be a large contributor to the economic development on the other hand it could bring negative impacts that need costs to solve.

Nature tourism activity may help governments to improve their management of natural resources and also gives economic incentives. It is also supposed to attract foreign investment (Shores, 2002).

1.2 Justification

The study on nature tourism was important to be implemented in Klias PSFR, which is a good match for the community and environment, where it can improve the quality of life, conserve the natural resources and also provides job opportunities that can increase the local revenues. With the current socio-economic condition of local villagers in Klias PSFR which is their main dilemma is poverty, there is need of effort to increase their income. To do this, study on nature tourism is important and must be implemented in the area so that the people will know that their place have

the potential to be developed and also they will get participate in the tourism activities so that they can improve their life status.

Therefore, nature tourism also can be promoted as a tool for biodiversity conservation and rural development. However, to achieve the goals, proper planning and management is required.

Awareness of nature tourism must be generated among the local communities to enable them to weigh in the advantages and disadvantages of nature tourism industry in their area. The development of nature tourism in a proper manner should be done in Klias because it will be expected in the future there will be many tourists entering the Sabah mainland from Brunei Darussalam, Indonesia, Sarawak and Federal Territory of Labuan.

Lee (1997) said that nature-based tourism is receiving growing attention from academicians because nature tourism activities are not only for generating the economic profits, but also to develop awareness and educate people of the importance conservation of biodiversity and environment.

It also can encourage the integration of nature and heritage tourism into a comprehensive land-use plans. Besides that, it may increase private sectors and local community participation in natural, cultural and commercial tourism assets.

1.3 Study Scope

The study was carried out at the Klias PSFR of Klias Peninsula, Sabah. The Klias Peninsula is an extensive wetland area of approximately 130 000 hectares. It contains an outstanding example of peat swamp forest which are Klias PSFR and Binsulok PSFR, 3630 ha and 12 196 ha, respectively (Maryati *et al.*, 2000).

Klias PSFR was gazetted as a Class 1 forest reserve and under jurisdiction of Sabah Forest Department (Mohd. Noh & Zulistiana, 2000). The natural vegetation comprises of several diverse wetland habitats ranging from mangroves, open marshes and peat swamp forest.

A study on nature tourism potential was done to promote Klias PSFR and its surrounding area as another tourism destination by assessing its natural resources for tourism purposes and also to study the local people perception on nature tourism, besides to come out with some recommendations on nature tourism activities that can be developed in this area. A fresh inventory of the tourism resources and supply was carried out to complement secondary information extracted from various resources.

1.4 Objective

The general objective of the research is to study the potential of nature tourism at Klias Peninsula, Sabah with emphasize on the Klias PSFR. The specific objectives are:

- a. To identify the potential nature tourism products that can be found in Klias PSFR
- b. To study the local community's perceptions on nature tourism in order to elaborate their awareness towards nature tourism potential and products available at Klias PSFR and also to relates with their current socio-economic status.
- c. To recommend several potential and practically suitable nature tourism activities that can be developed in Klias PSFR based on the criteria of products available, landscape found in the study area and the facilities provided.

CHAPTER 2

LITERATURE REVIEW

2.1 Concepts and Definitions of Nature Tourism

Within the recent growth in tourism research, nature tourism has certainly emerged as one of the least clearly defined, with lack of any common agreement on what it is, how it should be defined and how it interacts with the environments. The terms nature tourism has been defined in various ways by researchers. However all of them lead to one similarity that is; this kind of tourism was based on the natural attractions and resources. Deng *et al.* (2002) stated that the terms nature-based tourism is generally applied to tourism activities that depends on the use of natural resources, in a relatively undeveloped areas, including scenery, topography, waterways, vegetation, wildlife and cultural heritage.

Choegyal (1994) has defined nature tourism as environmentally sensitive travel in wild and remote areas by responsible travellers. While Chew (1994) justified tourism as "one visiting the undisturbed wilderness habitat, listening to exotic harmonious sound of living creatures and appreciating the plants of million years ago."

For most people, the terms ecotourism and nature tourism have the same meaning. However, according to Maryati *et al.* (2000), nature tourism is travel for the purpose of enjoying undeveloped natural areas, whereas ecotourism is a low impact nature tourism which contributes to the maintenance of species and habitats either directly through a contribution to conservation and/or indirectly by providing revenue to the community. Wan Sabri and Sam Shor Nahar (1994) agreed that nature tourism has to do with the destination and purpose of visit, while in the shortest form; ecotourism is defined as tourism with an ecological conscience. Another way to look at it is as managing tourism in a way to make it ecologically sustainable.

Meanwhile, according to Page and Dowling (2002), ecotourism is a subset of nature tourism which is a subset of tourism and there are three principles in defining it, namely a natural setting, ecological sustainability and an environmentally educative or interpretive element.

2.2 Tourism and Environments

The future of nature-based tourism is strongly environment resource dependent and requires access to high quality natural environment. Tourism can benefit from the conservation because the latter provides an array of resources and attractions that form the basis of any type of nature-based tourism (Priskin, 2001).

Natural areas have always attracted people and with the advent of modern travel, humans are now visiting places all over the planet (Newsome *et al.*, 2002). Indeed tourism to natural areas is booming and it has been estimated that it has risen.

Ross and Wall (1999) said that in addition to the potential contributions tourism may make to the well-being of host-communities, nature tourism, if managed effectively, should contribute to protection and conservation of biodiversity and natural resources in a variety of ways. Protected areas should provide tourists with a high-quality experience in nature and, in return, protected areas should receive environmental and economic support.

2.3 Status of Nature Tourism in Sabah

Sabah is one state in Malaysia rich in various landscapes, from the deep ocean to the highest mountain in South East Asia. Sabah is the land of eco-treasures where one can climb to the awesome peak of the highest mountain in the region; admire the Rafflesia, the largest flower in the world in rainforests that are millions of years old and dive into some of the world's best underwater wonderlands. Besides that, Sabah is also rich in exotic cultures where numerous of ethnic and customs can be found here.

2.3.1 Nature Tourism Destinations

One of the most outstanding nature tourism sites in Sabah is Kinabalu Park. Findings from several studies reveal that the most preferred places of interest for tourists in Sabah are Mount Kinabalu and Kinabalu Park (Chan & Yeoh, 2001) (Figure 2.1). This is due to the cool climate and tranquillity of these two parks. Kinabalu Park was declared as a World Heritage Site by UNESCO in the year 2000 and it was the first Malaysia's world heritage site (Hutton, 2002).

Table 2.1 Ten most preferred places of interest for touring in Sabah by tourists

Referred places of interest	Ranking by tourists
Mount Kinabalu and Kinabalu Park	1
Sepilok Orang Utan Rehabilitation Centre	2
Sandakan "Gateway to Wildlife"	3
Tunku Abdul Rahman Parks	4
Sipadan Island	5
Kota Kinabalu	6
Sabah Museum	7
Natural reserved areas – Lower Kinabatangan, Sukau, Danum Valley	8
Beach Resorts: Shangri La's Tanjung Aru Resort, Shangri La's Rasa Ria Resort and Karambunai Nexus Resort	9
Tawau Hills Park	10

Source: (Chan & Yeoh, 2001)

Kinabalu Park has been recognized as possessing outstanding natural universal values and contains the most important and significant natural habitats for conservation of biological diversity. The World Wide Fund for Nature (WWF) Malaysia (1997) have stated that montane forests are of special importance for biological diversity, having high concentrations of endemic flora and fauna, with many species of plants limited to single mountain peaks.

Kinabalu Park is a good nature tourism site for those who are nature lovers. This park was fully facilitated where tourist can find accommodation, administrative buildings, restaurants and other facilities at the park headquarters itself or at the Laban Rata (altitude 1500 metres) (Hutton, 2002). Others nature tourism sites that can be visited near the Kinabalu Park were Mesilau and Poring Hot Spring which was located about 25 kilometres from the park. Poring Hot Springs lies on the southern boundary of Kinabalu Park (Sabah Tourist Association, 2005). At Poring Hot Spring, the main tourist attraction here are open-air bathtubs fed by a sulphurous underground spring and the canopy walkways.

One of the most accessible areas of nature tourism site, apart from Kinabalu Park, is the Sepilok Forest Reserve, 43 square kilometres of superb lowland forest located just 25 kilometres from Sandakan city (Hutton, 2002). Sepilok is famous for its Orang utan Rehabilitation Centre, devoted to the conservation of one of the most remarkable creatures found in Sabah's rainforests. The tourism attraction to this centre is that visitors are allowed to watch the twice-daily feeding of the orang utan, when these animals come to a wooden platform to enjoy milk and bananas.

Nearby this centre, there is a well-planned Rainforest Information Centre for tourist to get information about the rainforests in Sabah. This centre was run by the Sabah Forestry Department. This is one of the best interpretation centres in Sabah (Hutton, 2002) and well worth visiting.

2.3.2 Potential of Nature Tourism in Sabah

The tourism industry has emerged in recent years as an important industry which provides significant forest exchange earnings for the country. Sabah, with a total forest area of approximate 4.4 million hectares which range from coastal forests to the montane forests on the highest mountain in the region, represents a nature wonderland and provides many opportunities for nature tourism (Empau & Ayim, 1994).

Sabah, as part of Borneo Island is associated with impenetrable jungles and is a mysterious land. It is known as one of the twelve mega-diversity sites in the

world with its rich living heritage from the well-endowed forest, mountain to river, seas and coral reef (Liew, 2000; Chan & Yeoh, 2001). Sabah is rich with many wonders of nature which are home to many species of flora and fauna. These make Sabah well-known for attracting tourists because of its unspoilt nature.

According to Chew (1994), more middle class and budget hotels have been established in Sabah to meet the demand of tourists in the state. Besides that tour operators also have tried to improve their facilities to attract more tourists to visit Sabah.

Nature tourism is the main focus of the tourism industry in Sabah (Chan & Yeoh, 2001). The main attraction is the state's diverse wildlife consisting of almost 200 species of mammals and over 500 species of birds. Orang utan is the flagship of wildlife while Rafflesia, slipper orchid and pitcher plant are the flagship of plants.

There are numerous nature-based destinations that can be found in Sabah, such as Kinabalu Park in Kundasang, Tunku Abdul Rahman Parks, Turtle Islands Park, Pulau Tiga, Crocker Range Park, Tawau Hills Park, Orang Utan Rehabilitation Centre in Sepilok, Kinabatangan, Tabin and Danum Valley (Chan & Yeoh, 2001). Mount Kinabalu and Kinabalu Park is a favourite place for mountain climbers and for the nature lovers to observe the flora and fauna of unique lowland and montane forest. The unspoilt beauty of popular islands such as Tunku Abdul Rahman Park, Sipadan Island and Turtle Island Park offers a paradise for sea-farers, wind-surfing, scuba diving, boating and swimming. Danum Valley which is a nature conservation area provides facilities for education as well as for wilderness recreation (Chew, 1994).

The availability of rich nature attractions has enabled most of the tour operators in Sabah emphasize their marketing on nature tourism packages. The existing nature place products promoted by the tour operators such as jungle trekking to observe wildlife and flora, and a special living atmosphere in the middle of the jungle.

2.3.3 Sabah Tourism Industry

The tourism industry in Sabah has become one of the fastest growing industries. It also has the potential of becoming the top income earner for Sabah. In year 2002, Sabah Tourism Board has been recorded a total of RM 1091 million of tourist receipts where the average per capita recorded was RM 2065.3 (Figure 2.2). According to the record, the top spender of tourism in Sabah was United Kingdom and Ireland where the total of RM 3754.3 averages per capita. While the least spender recorded on that year was South Korea with RM 2591.9 averages per capita (Figure 2.3).

Table 2.2 International tourism receipts to Sabah Year 2002

International Tourism Receipts to Sabah Year 2002	
Tourism receipts (RM. Mil)	1091
Average length of stay (days)	8.6
Average per capita (RM)	2065.3

Source: Respective Hotels/Resorts/Tourism Malaysia/Sabah Tourism Board (2003)

Table 2.3 Top Spenders in Sabah Year 2002

Top Spenders in Sabah Year 2002 (Average Per Capita) (RM)	
UK & Ireland	3754.3
Canada	3653.6
Hong Kong	3431.7
Netherlands	3396.9
USA	3212.0
Australia	3195.0
Germany	2917.8
Switzerland	2850.5
France	2746.3
South Korea	2591.9

Source: Respective Hotels/Resorts/Tourism Malaysia/Sabah Tourism Board (2003)