

**MANAGING TOURISM IN NATIONAL PARKS:
CASE STUDIES OF
TAMAN NEGARA AND KINABALU PARK, MALAYSIA**

BY

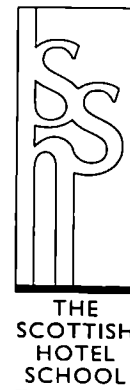
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ABSTRACT

This study aims to examine the concept of national parks as tourists destination. It will explore the relationship between tourism and conservation; discuss specific issues of tourism planning in national parks; and propose a conceptual framework of tourism management in national parks which will examine how visitor recreational opportunities are influenced by three main factors: visitor management, service management and resource management.

Taman Negara, the largest national park in Malaysia, located in the central part of Peninsular Malaysia and Kinabalu Park, situated in the northern part of the island of Borneo are utilised as case studies. These two national parks are among the oldest national parks in Malaysia, having established themselves as important tourist destinations. They are considered by the Malaysia Tourism Promotion Board (MTPB) as promising tourism destinations associated with 'nature-based' or 'ecotourism' and are being promoted as important 'add-on' destinations in an effort to increase tourists length of stay and to stimulate regional development.

The primary data in this study has two main purposes. The first is to examine the socio-demographic profile of local and foreign visitors to the parks; determine the differences in their trip characteristics; their perception of the park's services and facilities; and their evaluation on the charges of facilities and user fees. The second is to examine the socio-demographic characteristics of local communities living in the vicinity of the parks and explore the economic, environmental and socio-cultural impacts of tourism as perceived by the local communities.

Findings of the study highlights the different characteristics of local and foreign visitors to the parks, such as their perception on the information and interpretative services; user fees in the parks; and the favourable perception of local communities towards the development of tourism. Foreign visitors perceived the information and interpretative services provided by the parks to be less satisfactory relative to local visitors, while the latter perceived the user fees in the park to be higher compared to former. Strategy implication for the parks include the introduction a two-tier entrance fee, park personnel who are knowledgeable in various fields, besides natural sciences and a more active involvement of the park management with the related tourism agencies and local communities.

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Chapter One

INTRODUCTION

1.1 BACKGROUND

Travel and tourism industry, as one of the world's oldest commercial enterprise is arguably the world's largest industry, contributing significantly to the world's total gross national product and is the largest single employer, with an estimated number of 212.2 million people being employed world-wide in 1995 (WTTC, 1995). Despite the world's economic fluctuations and political instabilities, it has enjoyed an average growth rate of 8% per annum since World War II, with 25.3 million international tourists in 1950 increasing to 390 million in 1988 and 567 million in 1995, and is projected to grow at 4 to 5% per annum through the year 2010 (Lanfant & Graburn, 1992; WTO, 1996a).

While the total earnings from tourism is greater in the industrialised countries, it contributes significantly towards the development process of many developing nations in terms of foreign exchange earnings, employment and ability to generate regional economic development (Jenkins, 1992). Moreover, it reduces the reliance on the export of traditional primary commodities, providing an opportunity to diversify the economic base of many developing countries.

In the early 1960s, international agencies had promoted tourism development in developing nations, where the United Nations Conference on Tourism and International Travel acknowledged: 'Tourism makes a vital contribution to the economic development of Developing Nations' (United Nations, 1963). Since then, many developing nations have welcomed international tourism, granting it a priority status in their economy, encouraging foreign capital

and making fiscal concessions for tourism investments. In recent years rapid growth in the tourism industry has been observed in the East Asia and the Pacific region (EAP). The region's share of world's tourist arrivals has increased from 1% in 1960 (Waters, 1994) to 14.1% in 1994, where tourism receipts in 1994 was US\$61.9 billion or 17.9% of the world's share (WTO, 1996b).

Although tourism have been perceived as the industry of the future, it faces many challenges as it approaches the next century. Among them are greater commitment towards the communities that are hosts to the tourists (Murphy, 1985; Hall, 1994), more respect for the places that accept the tourists (Krippendorf, 1989; Woodley, 1993; Nelson, 1994) and greater responsibility to the tourists themselves (Kenchington, 1989). The ultimate challenge is therefore in delivering products which are appropriate and compatible to both hosts and guests.

Tourism in protected areas, a subset of the broader tourism industry have grown tremendously since the last decade. Kutay (1989), Urry (1990) and Forestry Tasmania (1994) illustrate this growing demand are due to factors such as :

- there exist a segment of the market which is dissatisfied with the present products, a shift away from 'mass tourism';
- increasing priority on active rather than passive holidays;
- rising focus on educational experiences and nature appreciation as motives for travelling;
- increased media focus upon 'pristine' natural environments;
- increased global awareness of environmental issues, stressing ecological limitations and cultural sensitivities of destinations, stimulating people to visit natural areas that are perceived as vanishing or endangered;
- an increase desire to escape crowding and the stresses of daily life;

-
- development in transport technology, allowing easier access to remote and underdeveloped regions; and
 - realisation on the part of tour operators, developers and governments of the demand for these nature-based experiences, creating more infrastructure and facilities to assist its development.

Furthermore, it has generated substantial interest among academicians, industry and environmental agencies because of the growing visitation, economic benefits and the potential contribution to sustainable development (McNeely & Thorsell, 1989; Hvenegaard, 1994). In certain areas, nature-based tourism allowed a more effective means of wildlife protection because tourism income enable the proper maintenance of trails, ranger camps and the very existence of tourists discourages the poachers (UNEP, 1979).

Nature-based tourism is often favoured because it is seen to have fewer negative effects on the natural resources compared to other economic uses such as logging, mining and agriculture (Yong, 1992). It is also perceived as a more responsible form of tourism which is sensitive to the ecological limitations, promotes socio-cultural integrity and sustainability principles (Farrel & Runyan, 1991).

In view of its great conservation potential, it is often perceived as an activity which is in harmony with nature (McNeely & Thorsell, 1989), as an alternative to mass tourism (Cater, 1994), often linked to ecotourism (Boo, 1990; Nelson, 1994), park tourism (Yong, 1992) and wildlife tourism (Shackley, 1996). Moreover, it is recognised as a mean of achieving symbiosis between conservation and development (Budowski, 1976), providing opportunities for integrating tourism with resource management and regional development.

However, concerns have been expressed on the ability of protected areas to continue upholding its dual objectives of conservation and recreation due to the increasing number of visitors, accompanied by the expansion of tourism infrastructures and facilities (Woodley, 1993). In many countries, the cart is before the horse, the growth of visitation to protected areas has grown at a faster rate than research needed in understanding and managing both the experience and the environment on a sustainable basis (McArthur, 1994). Resource managers are expected to encourage, support and assist the development of nature-based tourism, while at the same time conserving the resource. Since the conservation objective of parks discourages extensive manipulation of the natural and cultural resources, managing visitors (Manning, 1979) and understanding the priorities of local communities particularly in developing countries (Valentine, 1992; Long, 1993) are often the main options in reducing conflicts.

Resolution of conflicts often require a clear understanding of perceptions, motivations and preferences of visitors in an effort to assist resource managers balance use with preservation (Jackson & Dhanani, 1984; WTO, 1992). The understanding of the recreation participation and motivation will then assist in interpreting the tourist experience (Graefe & Vaske, 1987). Moreover, the dual purpose of national parks increase the need for information on the divergent segments utilising the natural resources, finding an acceptable compromise between recreation, development of tourism infrastructure and its preservation for ecological, scientific, cultural, historical and aesthetic reasons (Jackson, 1987).

O'Reily (1986) has demonstrated that capacity levels are being influenced by the characteristics of tourists, the destination area and its inhabitants. The former include the numbers of tourists, duration of stay, types of activities engaged in, behaviour and personality characteristics. The latter include the

resilience of the ecosystems, natural environmental features and processes, and the economic and social structure.

Characteristics of visitors have implications for the planning and management of visitors and tourism development in protected areas (Fennell & Smale, 1992). Understanding these characteristics will be helpful in the preparation of a management strategy that is effective in protecting protected areas and providing the different kind of opportunities which is capable of generating satisfying experiences to visitors.

In developing countries, the success of management often relies on the level of support and respect granted to protected areas by local communities (MacKinnon, Child & Thorsell, 1986). Where protected areas are perceived as a burden, local people are often reluctant to cooperate, making protection difficult. When they are seen as a benefit, local people themselves will unite with the relevant authorities in protecting protected areas from the various threats.

Having a clear understanding of the position of the local communities, how tourism will influence their socio-cultural and economic well-being as well as their priorities and capabilities will often ensure the success and long term survival of the industry (Perkin & Mshanga, 1992; Robinson, 1992; Gurung & Coursey, 1994; Lusigi, 1994). The approach of involving local communities in the planning and management of tourism associated with protected areas provides park management with an in-depth perception of local people and avoid misunderstandings and disruptions in the implementation of policies (MacKinnon *et al.*, 1986). However, studies have indicated considerable differences in the views of the experts, visitors and the local communities, which prevents an arrangement that is acceptable to all (Wellman, Dawson & Roggenbuck, 1982).

Nature-based tourism has long accomplished a significant role in the establishment of protected areas in North America and Europe (Murphy, 1985) and has become increasingly important in developing countries, notably in Central and South America and in the Asia-Pacific region (Valentine, 1992), encouraged by consumers' demand for new travel destinations. Despite this inclination, and the increasing necessity for conservationists to find economic alternatives to manage protected areas, little information has been collected to support these trends.

In 1995, 7.5 million tourists visited Malaysia, the tourism industry earned RM9.2 billion in terms of foreign exchange and generated 123.7 thousand jobs (MTPB, 1996). Although nature-based tourism in Malaysia is a subset of the broader tourism industry, it contributes in terms of local employment; diversifies the local economic base; stimulates the rural economy; infrastructure improvements; creates tourism facilities which can be utilised by both, international and domestic tourists; and promotes conservation. However, assessing the economic contributions and growth patterns of tourism development in Malaysian national parks has been limited by the absence of data and little research undertaken in this area. Few statistics exist on the numbers and profiles of people who travel to protected areas, their expenditures or the extent of their contribution towards the local economies.

Furthermore, even less is known about the environmental and social implications, essential elements for sustainability of the industry. Although tourism associated with national parks is widely recognised, many decisions are being made in the absence of sufficient research data and knowledge. Boo (1990: 4) illustrates that 'despite rising expectations regarding the value of nature tourism in many fields of expertise, there are great gaps in the information necessary to manage the nature tourism industry'.

1.2 PURPOSE OF STUDY

This study aims to examine the concept of protected areas as tourists destination and the management of tourism in protected areas. It will explore the relationship between tourism and conservation; examine the characteristics of visitors and tourism facilities in protected areas; and the perception of local communities towards the development of tourism. Taman Negara and Kinabalu Park, the two most established national parks in Malaysia will be utilised as case studies in this research.

The primary data in this study has two purposes. The first is to examine the demographic profile of visitors, their trip characteristics, their perception of the services and facilities provided in the national parks. The second is to identify the economic, physical and social impacts of nature-based tourism as perceived by the local communities living around the parks. The viewpoint of the park managers in terms of tourism management and development policies will also be examined to facilitate a better understanding of the overall situation. This study will also attempt to examine policies and strategies which could improve the effectiveness of tourism management in national parks.

Thus, the main objectives of the study are :

1. To investigate the socio-demographic profile of visitors to Taman Negara and Kinabalu Park;
2. To examine visitors trip characteristics and identify how these characteristics differ among local and foreign visitors;
3. To examine foreign visitors socio-demographic characteristics, trip characteristics, sources of information and the importance of protected areas, and determine if these attributes differ among visitors from different regions;
4. To evaluate visitors perception of park's facilities and services, and

determine if differences in perception exist between local and foreign visitors;

5. To investigate visitors perception on the charges of park's facilities, services and user fees and determine if differences in perception exist between local and foreign visitors;
6. To explore the economic, environmental and socio-cultural impacts of tourism as perceived by the local communities;
7. To examine the views of park managers on issues related to tourism management; and
8. To examine policies and recommend strategies which could improve the effectiveness of tourism management in national parks.

1.3 SELECTION OF STUDY SITE

Taman Negara and Kinabalu Park were considered as appropriate locations for the study. Taman Negara is located in the central part of Peninsular Malaysia and is the largest national park in Malaysia, with a total area of 4,343 square kilometre spreading through the states of Pahang, Kelantan and Terengganu. Kinabalu Park, the second study area is in the state of Sabah, one of the two states in East Malaysia, situated in the northern part of the island of Borneo. Taman Negara and Kinabalu Park are among the oldest national parks, having established themselves as important tourist destinations. Their unique landscapes, flora and fauna, geographical location and accessibility are some of the factors responsible for the increasing importance of tourism.

These two national parks are perceived by the Malaysian Tourism Promotion Board (MTPB) as promising tourism destinations associated with 'nature-based' tourism or 'ecotourism'. They are considered as important 'add-on' destinations in an effort to increase the tourists length of stay and to spread tourism development away from the major cities.

The creation of these national parks have implications on the local communities living around the parks. They no longer have free access to the natural resources in the parks. This study will therefore look at how they have come to terms with this restriction and how they perceive the impacts of tourism development. It will also identify the role of the management agencies in helping the local communities to adapt and benefit from the development of tourism.

1.4 RESEARCH METHODOLOGY

The data utilised in this study is a combination of primary and secondary data. The theoretical discussions required an extensive search of secondary data, which were valuable in examining the concept of protected areas, their conservation objective and the increasing importance of tourism in these areas.

The primary data was obtained through field work conducted in Taman Negara and Kinabalu Park. Three questionnaires were designed to generate the required data from visitors, local communities and the park managers respectively. Details on the collection of primary data is discussed in Chapter Five.

1.5 SIGNIFICANCE OF STUDY

Much of the limited research undertaken in the Malaysian protected areas has focused on the natural resource itself. By comparison, relatively very little research has been undertaken in the various aspects of tourism which is often considered as less important. However, with increased visitation and the growing importance of tourism in national parks, there is a crucial need for such research to be undertaken. This research therefore seeks to examine policies and recommend strategies required in increasing the effectiveness of tourism management in national parks.

The accumulation of base level data will aid in understanding the characteristics of the industry, a first step in developing management strategies that will consider the needs and preferences of tourists, minimise negative environmental impacts while still recognising the needs of local communities and respecting the objectives of national parks.

The findings of this research will identify the composition, characteristics and expenditure of tourists visiting two of Malaysia's most established national parks. It will recommend appropriate tourism development strategies which are compatible with the resource base of the parks and proposed management practices that are more sensitive to the preferences and needs of visitors and local communities living around the parks.

Many of the other national parks in Malaysia have similar characteristics and often share similar shortcomings. It is hoped that this research will recommend management strategies which will ensure the sustainability of nature-based tourism in a Malaysian context and contribute towards the body of knowledge in this under-researched area of tourism associated with protected areas.

1.6 ORGANISATION OF THE STUDY

This thesis is organised into nine chapters. Chapter One presents an overview of the thesis, purpose of the study, identification of the research objectives and significance of the study. Chapter Two will look at the overall tourism development in Malaysia. It will examine various tourism attractions; arrival trends; tourism contribution towards the economy in terms of foreign exchange earnings, employment and the expansion of the accommodation; and the transportation system. It describes some of the negative impacts of tourism and discuss the policies associated with tourism development in Malaysia.

Chapter Three examines the concept of protected areas and how tourism was first introduced in national parks, an important component of protected areas. It will view the conflicting objectives of national parks, the dilemma between tourism and conservation and examines various ideological opinions on how humans should interact with the environment. Chapter Four looks at certain planning and management issues associated with tourism in protected areas. It reviews the various approaches in tourism planning, ranging from the initial emphasis on physical site planning to the recent integration of tourism into the overall environment. A conceptual model of tourism management in protected areas will be presented, indicating how visitor recreational opportunities are being influenced by three main factors: visitor management, service management and resource management.

Chapter Five outlines the research methods used in collecting the primary data. It describes the research design being adopted, methods of data collection, sampling procedures and the phases involved in the fieldwork for the data collection process. Chapter Six will present the profiles of Taman Negara and Kinabalu Park, the two case study areas in this research. It examines how the parks were first established, their administration framework, the growth of tourism and its attractions. Chapter Seven and Eight report the findings on the statistical analyses of the visitors and local communities survey in Taman Negara and Kinabalu Park respectively. Chapter Nine highlights the main findings of the study and concludes by offering recommendations and suggestions for further research.

Chapter Two

TOURISM IN MALAYSIA

2.1 INTRODUCTION

This chapter aims to provide an introduction to the Malaysian tourist industry. It will first examine briefly the evolution of tourism, the various tourism resources available and some of the impacts of tourism in the Malaysian context. This will be followed by the arrival trends, contribution of tourism to the economy and manpower requirements. The final part will focus on the tourism and environmental policies and challenges facing the tourism industry.

Malaysia's entry to the tourism industry is relatively recent compared to neighbouring Thailand or Singapore, the two major South-east Asian destinations. Prior to 1970, tourism was developed indiscriminately and was mainly concentrated in Kuala Lumpur, the capital city of Malaysia and in Penang, which enjoys the reputation as the 'Pearl of the Orient'. Priority was not granted to tourism previously mainly due to Malaysia's rich natural resources and the reliance on the export of traditional primary commodities such as rubber, tin, palm oil and petroleum. The disappointing performance of the commodities during the recession period in the mid-eighties however prompted the Malaysian government to promote the tourist industry on a more vigorous scale, due to its capability of creating opportunities for economic improvement. Today, tourism enjoys an important status in the Malaysian economy, attracting 7,468,749 international tourists in 1995 and contributing RM9,174.9 million in tourism revenue (MTPB, 1996).

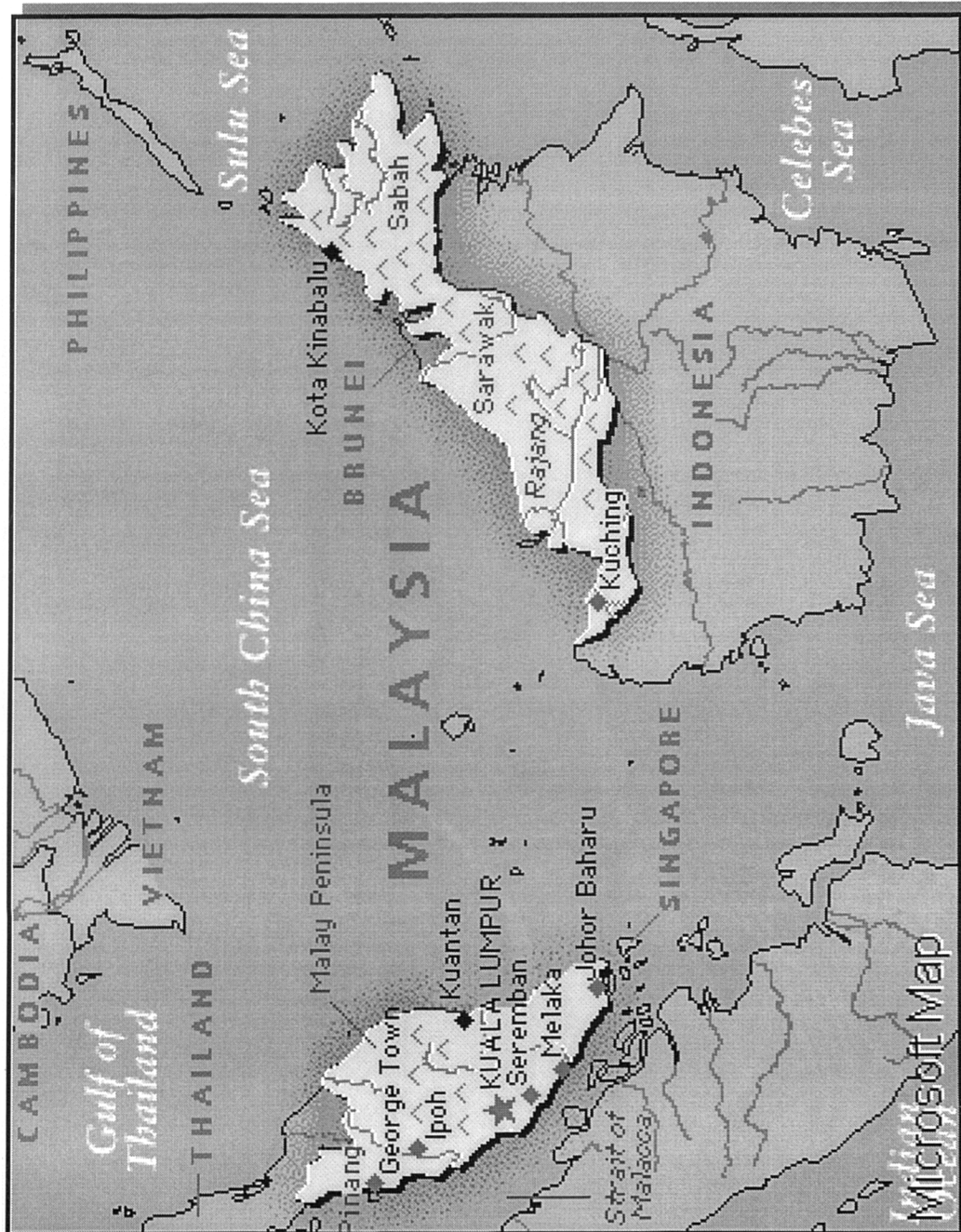


Figure 2.1 Map of Malaysia

2.2 THE EVOLUTION OF TOURISM

Malaysia is a large country, situated in the central part of South East Asia and lies entirely in the equatorial zone. It has a population of around 19 million and is a federation of thirteen states. Peninsular Malaysia has eleven states and occupies an area of 130,342 sq. km. Separated by 530 km. of the South China Sea are the other two east Malaysian states of Sabah and Sarawak with an area of 198,753 sq. km., on the island of Borneo. Being in the tropics, the climate is hot and humid throughout the year with no distinct season, experiencing an average annual temperature of around 26°C.

The development of tourism in Malaysia started with the introduction of the first railway line connecting Taiping and Port Weld in 1987. This was followed by the building of the first resort at Maxwell Hill in Taiping to cater for the British personnel and their families. With the development of roads in the early 1900s, more hill resorts were built, such as Fraser's Hill, Cameron Highlands, and Penang Hill. The hill station resorts were initially developed as places for people from Britain and other European countries to enjoy their cooler surroundings (Din, 1992). However, by the early sixties, these resorts were no longer exclusive to the Europeans or other elite groups and have attracted the domestic tourists.

The government's involvement in tourism development was initiated in the early 1970's. Although a Department of Tourism was set up as early as 1959 under the Ministry of Trade, it was not a priority sector in the national development and the development of tourism was mainly left in the hands of the private sector. The Pacific Asia Travel Association (PATA) 1972 Conference in Malaysia and the formation of the Tourist Development Corporation (TDC) in the same year have succeeded in creating more awareness regarding the tourism industry. Between 1972 and 1975, the flow of tourists to Peninsular Malaysia registered an average increase of 18.4%, the highest in Southeast Asia (Tan,

1991). This was mainly due to increase in accessibility and the awareness of Malaysia as a growing tourist destination.

Although tourism was not a dominant sector of the economy then, it was recognised as a sector having huge potential in fulfilling the needs and achieving the economic goals of a developing country. It has the capability of generating foreign exchange earnings, to increase employment and income levels, to foster regional development, diversification of the economic base and to increase government receipts. Furthermore, tourism was also seen to promote a better understanding of the various cultures and lifestyles of the multi-ethnic society in Malaysia, contributing to socio-cultural integration and a national sense of unity.

Tourism was granted high priority in 1987. It was a landmark year for tourism development in Malaysia because the industry was elevated to cabinet status with the establishment of a separate Ministry of Culture and Tourism which was subsequently expanded to Ministry of Culture, Arts and Tourism in 1990 (Figure 2.3). Tourism was then emphasised as a vital economic activity and there was full support from the government in terms of funding, planning, co-ordination, regulation and enforcement.

2.3 TOURISM RESOURCES

Malaysia is a relatively large country with a wide range of natural and cultural attractions. In tourism development, the attractions of the country are the vital element of the tourism product. Malaysia's natural, socio-cultural and hospitality resources when combined with the appropriate facilities and services are the valuable inputs for the tourist industry. But to benefit tourism, these attractions and activities offered must be balanced by the needs of the market.

As mentioned earlier, the hill resorts were the driving force in the early recreation and tourism in Malaysia. However, besides the hill resorts of Genting Highlands, Cameron Highlands and Fraser's hill which are often sought after by those seeking comfort from the heat and humidity of the lowlands, Malaysia's tourist product have expanded to cater for the different needs of today's tourists. Below is a brief description of the various attractions.

Coastal Tourism

Modern coastal tourism was already initiated in the early 1950s, with the first resort at Port Dickson. With the increase in accessibility, especially with the improvement of ferry and air services in the 1970s, more focus was on island tourism. In the west and east coasts of Peninsular Malaysia: Tioman, Pangkor, Langkawi, Redang, and Perhentian are among many of the islands being promoted. In the East Malaysian state of Sabah, the Tunku Abdul Rahman Park which is a cluster of five island is a major attraction. These beach resorts with their long stretches of sandy golden beaches and coral reefs mainly promote the sun, sea and sand attractions.

Cultural Resources

The diversified ethnic mix of Malaysia's people are one of the country's main assets. According to the 1980 Statistical Census, the bumiputera or "the sons of the soil" make up over half of the population (59.0%). The bumiputera

consist of: (i). the aborigines (orang asli); (ii). the Malays; and (iii). the ethnic groups of Iban, Bidayuh, Melanau, Kenyah, Kayan and Bisayah (in Sarawak) and Kadazan, Murut, Kelabit, Bajau and Kedayan (in Sabah). The proportion of Chinese is 32.8% of the population, Indians and other races (8.2%) make up the remainder. The mix of ethnic groups gives the country an enormously diverse culture which is reflected in festivals, religious events, languages, the variety of architecture, the choices of cuisine and lifestyles. These cultural resources are among the attractions often taken advantage of in promoting Malaysia abroad.

East Malaysia's native population include the Iban, Bidayuh, Kayan, Penan and Kenyah tribes of Sarawak and the Kadazan and Bajau tribes of Sabah. These indigenous people have distinctive customs, traditions and life-styles which provide a very unique experience to tourists. Although tourism authorities in both the states of Sabah and Sarawak are keen to promote ethnic tourism, their efforts are made difficult by the limitation in transportation services and accommodation. However, an integrated plan spreading over the medium and long term is necessary to protect the cultural integrity of these indigenous people while minimising the adverse socio-cultural impacts associated with tourism.

Rain forest

Malaysia has the world's oldest rain forest, one of the most complex and richest ecosystem in the world, consisting of 8,000 flowering plants, 1,000 species of butterflies, 675 species of mammals, 147 species of amphibians and more than 250 species of freshwater fish (Sham, 1993). Most of the forests have been protected in the form of national parks (Table 2.1), wildlife reserves and sanctuaries. Many rare animals, insects and a wide range of endemic plants are found in these areas. The contribution of protected areas include species conservation and the protection of water supplies. Moreover, they can be an attractive resource base for the development of the tourism if comprehensive measures are taken in the development, protection and management of such

Table 2.1 Main Protected Areas in Malaysia

Region	Name of protected areas	Area (ha)
Peninsular Malaysia	Taman Negara	434,300
	Endau Rompin State Park	87,464
Sabah	Kinabalu Park	75,370
	Crocker Range Park	139,919
	Pulau Tiga Park	15,864
	Turtle Island Park	1,740
	Tawau Hill Park	29,972
	Tunku Abdul Rahman Marine Park	1,289
Sarawak	Bako National Park	2,728
	Gunung Mulu National Park	52,865
	Niah National Park	3,140
	Lambir National Park	6,952
	Similajau National Park	7,067
	Gunung Gading National Park	5,340
	Kubah National Park	2,316

Source : Mohd Khan (1992)

areas. Furthermore, revenue gained from tourism can supplement the cost of protecting such areas. The unique attributes of these areas may provide the niche the tourism authorities are looking for in promoting Malaysia abroad. The major national parks are Taman Negara and Endau-Rompin in Peninsular Malaysia, Kinabalu Park in Sabah, Niah Caves, Gunung Mulu and Bako National Park in Sarawak (Table 2.1).

The natural attractions of the national parks are less known but have great potentials. Nature lovers, adventurers, special interest groups such as the botanists or ornithologists are segments of the tourism market which are growing. Accommodation, accessibility and park management are some of the factors which will determine the future growth of this nature-based tourism. According to Peat Marwick (1993), the potential of nature-based tourism is great, especially when it is combined with a high quality beach resort product and is likely to be popular in the western markets. But limitations such as the fragile nature of the resource base might make large scale development not feasible. Moreover, in the long run, there may be restrictions in the number of visitors, once the capacity has been reached.

Golf Tourism

Similar to other South East Asian countries, golf tourism is also being aggressively promoted in Malaysia. Many perceive golf courses as the symbol of modernisation and is the indication of a successful and affluent society. According to Pleumoran (1992: 2) Malaysia plans to double its number of golf courses from the present 91 by the year 2000. Unlike golf courses in Europe, many of the recently developed golf courses in Malaysia are large, with up to three championship golf courses, complete with housing estates, leisure and shopping facilities. These golf courses are often designed by international corporations controlled by world-class golfers such as Jack Nicklaus. The Japanese are the main market being targeted due to their love for the game and

the extremely high golf club membership fees in Japan. Furthermore, it is also a strategy to attract the Japanese business and conference market.

Meetings and Conventions

The Meetings, Incentives, Conventions and Exhibitions (MICE) market is relatively new but the government is keen on promoting it. Although not as established compared to Singapore, Malaysia is able to attract the smaller groups. There is a shortage of facilities to hold large conventions and exhibitions and at present only the Putra World Trade Centre (PWTC) in Kuala Lumpur is capable of providing it.

In 1994, there were 90,258 foreigners participating in meetings and conventions, a decline of 12.1 percent (MTPB, 1995). Apart from Kuala Lumpur, Penang is also promoting itself as an attractive MICE centre. In the international perspective, most basic MICE facilities are relatively similar. Peat Marwick (1993) suggested in the long term, for Malaysia to compete favourably with other international MICE destinations and venues, supplementary attractions such as river cruises, jungle trekking, golfing or other unusual product attributes will prove crucial and marketing MICE facilities alone will not be sufficient.

2.4 IMPACTS OF TOURISM

As mentioned above, tourism occurs in a diversity of landscape, man-made and natural. Coastal areas, islands, forests, hills and mountains are attractive landscapes for tourism development. Unlike other exports, the tourism product is consumed at the destination, and therefore being more sensitive to the surrounding environment. Similarly, the tourist is also a discerning purchaser with a wide range of choices.

Many of the natural areas have ecosystems which have evolved through thousand of years and there are limitations to their tolerance to development. In some of these areas, indigenous cultures have also become an indispensable component of the ecosystem. Tourism development may lead to the improper consumption of the environment if the strategies and plans are inappropriate, especially when the priorities are financial and economic gains at the expense of culture and ecology of the destination (Murphy, 1985; Woodley, 1993). Ironically, it is these physical and cultural features that first attracted tourists to these destinations.

Tourism development should be sensitive to the ecosystem in which it is placed, and should not generate or at least minimise the accompanying adverse impacts. To minimise this conflict, tourism should be integrated with the environment since tourism development can only be sustained by realising that economic and environmental issues are interrelated. During the planning stages, all tourism developments should be subjected to environmental and social impact assessments (Inskeep, 1991). Capacity level analysis and zoning of areas for land uses are also essential.

Mitigating these adverse impacts is essential and is dependent upon an understanding of the types of tourism and their compatibility with other activities (Wall, 1993). It should be realised that as tourism evolves, so do these impacts.

Establishing systems or indicators (national, regional & local levels) in monitoring and evaluating the progress of achieving the objectives and goals of tourism development is essential. Furthermore, changing to adapt to the current needs will ensure the sustainability of the industry.

The type of tourism being promoted and the extent of development undertaken will influence the impacts of tourism development upon a destination. Any development will lead to economic, environmental and social changes, but the extent of such changes either positive or negative are dependent on those who control or have an influence on the development. Often, tourism development in developing countries is large-scale, developed by multinational corporations and is dependent on the 'trickle-down effect' to generate the economic gains. Although this trend of development has the advantage in reducing the burden of the Government in providing capital and is capable of producing rapid and impressive results, frequently it fails to integrate the socio-cultural and ecological dimensions of the destination.

There are many destinations which have suffered from the negative impacts of tourism development such as the algae scare in the Italian Adriatic Riviera of the Mediterranean Sea and the destruction of coral reefs on the coastlines of Belize. Many tourist destinations in Malaysia are still in the development stage, therefore being in a fortunate position to learn from the mistakes of others. But in certain beaches which are popular with tourists such as Pantai Batu Buruk in Terengganu, Batu Ferringhi in Pulau Pinang, and Pantai Teluk Chempedak in Pahang, the waters have been contaminated with faecal coliform due to inadequate facilities for sewage treatment (Sham, 1993). In other tourist destinations such as Langkawi, initial signs of over-development are beginning to appear. The rapid development of hotels to capture the common benefits from the shared natural resources of the island have led to pollution and a decline in the aesthetic value. Although the problem is not alarming yet, but

with no proper regulations and restrictions on development, it may end up like certain resorts in Majorca, Spain where hotels are being destroyed as part of a new strategy to revitalise the area, replacing the demolished hotels with fewer but more upmarket accommodation (Bowden, 1996).

One area of great concern is golf tourism. Despite the huge economic benefits, there are also many adverse social and environmental impacts associated with it. As indicated by Ling (1993), one golf course requires between 3,000 to 5,000 cubic metres of water a day to maintain the green turf which is equivalent to the water supply for 2,000 households. She further illustrates that heavy use of pesticides, herbicides and other chemicals to keep the grass green could cause soil and groundwater contamination. Utilisation of chemicals such as silicic acid, aluminium oxide and iron oxide in the golf courses are known to be carcinogenic.

At present, the development of golf courses do not require an EIA (Environmental Impact Assessment) unless there is a clearing of forests, swampland or hotel development. However, the serious problem of erosion which often comes with the development of golf courses should be controlled. Possible measures to mitigate erosion include the designing of golf courses according to the terrain, retaining the existing vegetation as much as possible and minimising the length and steepness of the slope. Regulations should be enforced for the developers of golf courses to account for all externalities and their costs fully taken into account, due to the inability of market forces to capture such costs.

Besides that, local communities living around golf courses often resent the development because they cannot afford to utilise the facilities. The development of a golf resort in the Island of Redang involved the relocation of hundreds of locals which disrupted their socio-economic lifestyles, causing

severe water shortage, destroying the mangrove forests, coral reefs and marine life.

The nature of tourism development should be appropriate to the tourism resources of the area. Although, the local community is a vital component of the resource base, they are often given less consideration in the development of tourism. Furthermore, despite many of these developments generating huge monetary benefits, there is a need to recognise to whom these benefits are targeted, to ensure a more equal distribution of gains.

2.5 ARRIVALS TREND

Tourist arrivals into Malaysia from abroad have increased from 3,109,106 in 1985 to 7,468,749 in 1995. Table 2.2 summarises recent trends, higher than average growth rates were recorded in 1989, 1990, 1994 and a decline in 1991. The high tourist numbers were primarily due to the generous allocation of Government funds, aggressive promotion, and marketing overseas. This is especially so during the first Visit Malaysia Year (VMY) 1990 and the second VMY in 1994. The Gulf war and recession experienced in certain countries were some of the factors contributing to a negative growth rate in 1991.

Peninsular Malaysia has always received a dominant share of the arrivals, with an average of around 92 percent, compared to the East Malaysian states of Sabah and Sarawak on the island of Borneo. The two most important tourist destinations in Malaysia are Kuala Lumpur, the capital city and Penang.

With regard to the number of arrivals, World Tourism Organization (WTO, 1996) ranked Malaysia (7.2 million) as the third most important destination in the East Asia Pacific region, after China (21.0 million) and Hong Kong (9.3 million). However, the Pacific Asia Travel Association (PATA)

Table 2.2 Tourist Arrivals and Receipts in Malaysia

Year	Arrivals	% growth	Receipts (RM million)	% growth
1985	3,109,106	-	1,543.0	-
1986	3,217,462	3.48	1,669.0	8.16
1987	3,358,983	4.39	1,795.0	7.54
1988	3,623,636	7.87	2,012.0	12.08
1989	4,846,320	33.74	2,803.0	39.31
1990	7,445,908	53.64	4,473.0	59.57
1991	5,847,213	- 21.47	4,283.0	- 4.24
1992	6,016,209	2.89	4,595.4	7.29
1993	6,503,860	8.10	5,065.8	10.23
1994	7,197,229	10.66	8,298.3	63.81
1995	7,468,749	3.77	9,174.9	10.56

Source : MTPB (1991-96)

ranked Malaysia in the tenth position because it excludes all tourists from Singapore arriving by land from the overall count.

The percentage of tourist among the Singaporeans is difficult to estimate but a substantial proportion of them come through the causeway solely for shopping and filling up their car with Malaysian petrol. Until early 1991, the Malaysian tourism authorities have been using the 1985 estimate of 36.3% to compute the number of tourists among the total arrivals (MTPB, 1991), however this estimate has been reduced to 25 percent (GOM, 1991). Tourists arriving by air to Malaysia is relatively small, around 20% in comparison with an average of 80-90% for the region as a whole. Therefore it is not surprising for Malaysia to be in the ninth position (US3,189 million) in the WTO regional ranking for 1994

in terms of tourism receipts, after Singapore (US\$7,089 million), Thailand (US\$5,762 million), and Indonesia (US\$4,785 million) (WTO, 1996).

Most visitors to Malaysia come from the ASEAN (Association of South East Asian Nations whose members comprised of Malaysia, Thailand, Singapore, Indonesia, Philippines, Vietnam and Brunei) region. Among them, Singapore is by far the most important, with a 62.1 percent share of arrivals in 1994. This is followed by Thailand, in the second place with 7.5 % of the total share. These two markets alone account for almost 70% of international arrivals to Malaysia. Besides the close proximity, the greater purchasing power of the Singaporean dollar has been a powerful stimulus for the flow of Singaporean travellers to Malaysia. Most Singaporeans crossed into Malaysia by road, to take a short break, visiting friends and relatives (VFR), shopping or just eating out. The Singaporean market is unlikely to grow any further due to the country's limited size and small population. However, strategies that could increase its contribution include encouraging repeat visitation, increasing the length of stay, expanding the tourism product which will encourage more spending and distributing them away from the border towns.

The ASEAN region is by far the most important source of visitors to Malaysia. ASEAN over the past years 'have recognised that its greatest market is itself' (Peat Marwick, 1993). The outbound travel market in the region is rapidly expanding due to the higher disposable income from the growing economies of member countries. Promotion and marketing in ASEAN countries are easier due to the greater awareness and higher exposure of the people to the attractions of member countries. As mentioned before, the ASEAN countries could be viewed as partners rather than competitors. Especially with Singapore, being a gateway city with a short average length of stay, there is great opportunity for Malaysia to offer an add-on travel which would benefit both countries in sustaining the tourist flows.

Table 2.3 Tourists arrivals ('000) from selected markets (1990-94)

Region	1990		1991		1992		1993		1994	
	Arrivals	% share	Arrivals	% share	Arrivals	% share	Arrivals	% share	Arrivals	% share
ASEAN	5,495.1	73.8	4,155.3	71.1	4,515.9	75.1	4,883.0	75.1	5,427.1	75.4
Brunei	215.0		145.1		145.7		142.8		150.8	
Indonesia	140.1		178.4		153.7		181.0		225.9	
Philippines	56.5		55.8		39.6		38.3		42.2	
Singapore	4,569.1		3,261.0		3,744.7		4,051.6		4,469.8	
Thailand	514.7		514.9		432.1		469.3		538.5	
Asia and Pacific	1,188.5	16.0	1,012.0	17.3	916.6	15.5	988.9	15.2	1,103.7	15.3
Hong Kong	103.1		92.0		96.5		119.2		136.0	
India	108.4		71.4		94.5		42.2		52.3	
Japan	507.8		405.2		259.5		255.6		286.3	
Taiwan	193.6		156.8		201.8		250.1		250.6	
China	6.9		12.8		46.8		81.9		95.8	
South Korea	59.7		80.2		38.0		40.1		55.0	
West Asia	33.9		47.8		24.2		24.4		26.9	
Australia	149.1		121.9		120.9		121.7		128.4	
New Zealand	26.1		24.0		15.0		15.4		24.9	
Others	-		-		13.4		38.3		47.5	
Europe	455.1	6.1	420.8	7.2	343.9	5.7	373.2	5.7	401.2	5.6
U. Kingdom	196.3		166.8		142.1		154.5		157.9	
Germany	71.8		63.8		47.3		58.4		70.2	
France	35.6		32.0		24.3		26.1		29.0	
Scandinavia	56.3		51.3		29.5		29.8		35.9	
Benelux	32.1		36.3		25.1		25.7		28.5	
Others	63.0		70.8		75.6		78.7		79.7	
Americas	192.6	2.6	140.4	2.4	112.2	1.8	120.2	1.9	132.5	1.8
United States	146.1		105.2		78.8		85.9		94.4	
Canada	28.9		30.2		24.1		24.7		28.1	
Latin America	17.6		5.1		9.3		9.6		10.0	
Others	114.6	1.5	188.7	2.0		1.9	138.6	2.1	132.7	1.8
Grand Total	7,445.9	100.0	5,846.2	100.0	6,016.2	100.0	6,503.9	100.0	7,197.2	100.0

Source : MTPB (1994)

- Notes:
1. Asia and Pacific arrivals excluding tourists from other ASEAN countries, but inc. from the Middle East and Africa
 2. Asia UK's figures in 1990 and 1991 include arrivals from Ireland
 3. Data for India since 1992 refers to arrivals from the South Asia sub-continent

Apart from ASEAN, other developed markets include Japan, Taiwan, Hong Kong, Australia, United Kingdom, Germany and USA (West Coast). The United Kingdom is the largest non-Asian market, with 157,929 arrivals in 1994, 2.2% of the market, followed by Australia and United States (Table 2.3). Besides the developed market, the Ministry of Culture, Arts and Tourism (MOCAT) (1994) has recognised other markets and categorised them as emerging markets, new markets and potential markets (see Table 2.4). These markets are segmented and prioritised mainly for marketing purposes. Some of the criterion used for the classification include the economy of the market, current government policies related to outbound travel, accessibility and the strength of the currency compared to the Malaysian ringgit.

Table 2.4 Market Selection Strategy

Descriptions	Countries
Developed markets	Singapore, Thailand, Brunei, Japan, Taiwan, Hong Kong, Australia, United Kingdom, Germany, USA (West Coast)
Emerging markets	Indonesia, South Korea, New Zealand, France, Italy, Benelux, Switzerland, Austria, Canada
New markets	United Arab Emirates, Saudi Arabia, South Africa, China, USA (East Coast), Scandinavia, Finland and Spain
Potential markets	Philippines, Iran, India, Turkey, Kuwait, Ireland, Greece, Mexico, USA (mid West)

Source: MOCAT (1994)

There are substantial differences in the travel characteristics and activities undertaken by foreign tourists visiting Malaysia. An inbound survey carried out by Malaysia Tourism Promotion Board (MTPB) in 1992 indicates that the purpose of visit varies, with 59% for holiday, followed by 24% visiting friends and relatives (VFR), 13% for business and the conferences and conventions market account for 2-3% (EIU, 1994). The overall average length of stay in Peninsular Malaysia in 1995 was 4.8 nights (MTPB, 1996). This shorter average length of stay compared to other ASEAN destinations is again influenced by the high number of Singaporean tourists.

2.6 REGIONAL COOPERATION

Many of Malaysia's attractions mentioned before are also shared by other ASEAN destinations. Positive attributes such as political stability, the wide use of the English language, relatively low crime rate, high level of safety and the more favourable currency exchange compared to certain neighbouring countries are some of the factors that could be further emphasised when marketing Malaysia abroad.

However, in the near future, there will be more competition to gain a better share of the tourism market. This is especially so, since neighbouring countries such as Vietnam, Burma and Laos are already opening their doors to tourism. Destinations with similar attractions will have to fight for the same share of the market.

Yeo (1991) representing the Singapore Tourist Promotion Board (STPB) recommended that more efforts should be made in marketing Singapore and Malaysia as a single destination. Campaigns such as 'Fascinating Malaysia, Surprising Singapore' and 'Two Great Countries, One Great Holiday' have successfully promoted the two countries as a single destination. The joint marketing effort will see a sharing of financial resources, a greater marketing budget and more international exposure, and allowing both countries to capitalise on its marketing strengths. This will be followed by more collaboration in product development, such as greater cooperation and integration among airlines and the travel trade. If this strategy is successful, in future it can be expanded to include all the ASEAN countries, a single destination without political boundaries.

2.7 TOURISM IN THE ECONOMY

Malaysia is recognised as one of the newly industrialised nations in the Asia Pacific region, with average GDP growth of around 8% per annum for the past seven years. Inflation is carefully controlled, normally below 4.0% and it has a very low rate of unemployment. It is estimated that more than half of Malaysia's GDP is attributed to the industrial sector, which include manufacturing, mining, construction, utilities and transportation. Manufacturing is the most important sector, its share of the GDP is around 30 percent and in 1995 the sector employed approximately 26 percent of the labour force. In 1994, the nation's overall terms of trade had grown by 3.5% due to the higher increase in export prices (6.1%) relative to import prices (2.5%), while the nominal per capita income has increased by 11.3% to RM\$9,042 (US\$3,447) (Bank Negara, 1995). The ultimate aim of Malaysia's economic policies is embodied in the Prime Minister's 'Vision 2020', where the country aims to achieve the status of a fully developed and industrialised nation by the year 2020.

The contribution of tourism to the Malaysian economy is small, normally less than 5 percent of the GNP. Its contribution to the GNP fluctuates from 3.02% in 1988 to 5.64% in 1990 and 4.7% in 1994 (MTPB, 1991, 1995). Foreign exchange earnings from tourism rose from RM4.6 billion in 1992 to around RM5 billion in 1993 (Economic Report 1993/1994, quoted in MTPB, 1994) and reaching RM9.2 billion in 1995 (MTPB, 1996). Tourism has grown rapidly, over taking some of the country's traditional exports, improving from seventh position in 1985 to the third position in 1995. Table 2.5 shows the contribution of tourism in terms of foreign earnings compared to the other main exports. Tourism performed well in 1995 and during the first Visit Malaysia Year in 1990, where for the first time the country became a net foreign exchange earner in terms of a travel account surplus of RM508 million in the balance of payments (Bank Negara, 1992).

Table 2.5 Foreign Exchange Earnings of Tourism in RM billion
(compared to other Economic Sectors)

Descriptions	1990	1991	1992	1993	1995
Manufactures	46.6 (1)	61.3 (1)	71.1 (1)	85.3 (1)	147.5 (1)
Crude Petroleum	10.1 (2)	10.2 (2)	9.1 (2)	7.8 (2)	6.7 (4)
Palm Oil	4.3 (5)	5.5 (4)	5.4 (4)	5.8 (4)	10.3 (2)
Tourism	4.4 (4)	4.2 (5)	4.5 (5)	5.0 (5)	9.2 (3)
Sawn Logs	7.1 (3)	7.1 (3)	7.3 (3)	7.6 (3)	6.1 (5)
Rubber	3.1 (6)	2.6 (7)	n/a	n/a	4.0 (6)
LNG	2.6 (7)	3.4 (6)	2.5 (6)	2.7 (6)	n/a

Source: Economic Reports (1991/92, 1993/94); MTPB, 1996

Notes:

1. The figures in brackets are the rankings,
2. From 1992, the export commodity sawn logs had been revised to sawn logs and sawn timber, and
3. Figures for 1994 were not available.

The total expenditure incurred by international tourist in 1994 was RM8.3 billion, with an average per capita expenditure of RM1,153 and per diem expenditure of RM240 (MTPB, 1995). Major components of tourist expenditure in descending order are: accommodation; shopping; and food and beverage. Shopping is increasingly becoming an important component of tourists expenditure where in 1994 it represented 24% of the total expenditure. This trend is further enhanced by the 1995 budget which include the abolition and reduction of duties in many categories of goods, such as clothing, electrical and electronic goods. In terms of a shopping destination, Malaysia ranks third after Singapore and Hong Kong in the East Asia region (Khoo, 1993).

Although tourist arrivals from non-ASEAN countries are low, they contribute significantly in terms of revenue. The longer distance travelled encourages more spending, besides having a longer average length of stay. According to a study conducted by ESCAP (1991), domestic and Singaporean tourists have a similar spending pattern, with expenditure on shopping and souvenirs representing the highest component. On average, other foreign tourists spent more on all major items compared to a Singaporean tourist. A domestic tourist expenditure on all items is the least when compared to the other two. Table 2.6 highlights the contribution of the main markets to tourism receipts. Singapore dominates the ranking in terms of total receipts, but its per diem expenditure is much lower compared to other markets such as Japan, Taiwan, China and most Western markets.

Although tourism's contribution to the economy is relatively small, it is recognised as a sector having great potential for income generation and in alleviating the deficit in the services account of external trade. Tourism direct, indirect and induced income multipliers are respectively greater than the economy's average (ESCAP, 1991). The study by Mohd. Shawahid, Abdul Aziz, Zakariah and Ahmad (1991) on the economic impact of tourism in Malaysia, suggests that the sectors which benefit substantially from tourism are wholesale and retail trade, hotels and restaurants, land transportation, air transportation, business services and personal services. This is mainly due to the high spending by tourists in these sectors as reflected in their high contribution to the GDP, employment, commodity taxes and net foreign exchange. Agriculture and livestock, and fishing are the two other sectors which benefit indirectly through tourism. A substantial amount of its GDP is being generated through food purchased in hotels, restaurants and 'stalls' or eateries outside the hotels. Much of the production activity in these two sectors is also significantly directed towards tourism, thus creating additional income and employment. To fulfil the

Table 2.6 Breakdown of selected international tourism receipts by market, 1993-94

Country of Residence	1993			1994		
	Receipts (RM mil.)	% share of total	Average per diem expenditure (RM)	Receipts (RM mil.)	% share of total	Average per diem expenditure (RM)
Singapore	1,729.0	34.1	135.2	4,200.6	50.6	288.0
Japan	528.2	10.4	433.3	621.1	7.5	414.0
Taiwan	429.3	8.5	337.6	478.3	5.8	352.0
UK	269.5	5.3	213.3	288.4	3.5	203.0
Thailand	204.4	4.0	40.3	532.6	6.4	92.0
Australia	179.8	3.5	197.7	221.7	2.7	200.0
Brunei	178.5	3.5	248.9	174.8	2.1	249.0
China	170.9	3.4	321.5	180.7	2.2	262.0
Indonesia	161.3	3.2	132.5	218.9	2.6	140.0
Hong Kong	155.9	3.1	276.0	181.6	2.2	271.0
USA	129.3	2.6	241.6	143.5	1.7	241.0
Germany	83.8	1.6	157.6	101.9	1.2	147.0
South Korea	75.8	1.5	356.2	87.5	1.1	332.0
India	12.0	0.2	84.4	16.8	0.2	87.0

Source: MTPB (1995)

objective of income generation, a strategy of creating more linkages between the tourism sector and other domestic productive sectors, particularly the wage-intensive sectors should be encouraged. A greater integration with labour-intensive rural and small scale supplying industries will subsequently create additional income and employment.

Success in tourism is often measured in terms of the number of arrivals and expenditure. Although such tourism statistics are impressive, they relay very little information regarding the quality of life of the local people involved in the development of tourism or how much of the foreign exchange earned actually remains in the economy at the local, regional and national levels. Economic benefits from tourism in the long term will decline if the political system only allows a few to benefit from it or allowing development even when there is adverse cultural and environmental impacts on the destination.

The Economic Report 1989/90 indicates that 50 percent of foreign exchange earned from tourism disappears from the Malaysian economy. Goh (1989 in Tan, 1991: 169) estimated that in 1985, around 65.8% of gross tourism earnings were lost through leakages. Leakages are mainly through the purchases of imported goods; overseas payments of profits and capital remittances of foreign tourist companies; wage remittances of expatriate workers; interest payments on foreign loans; management, royalties and other fees to foreign companies; and promotion and publicity abroad (Tan, 1991). The realised benefits of tourism can be expanded if more efforts are directed in developing strategies to reduce these leakages.

As mentioned above, the main indicators for the measurement of success in the tourism sector are mainly economic in nature. The national income accounting has been an indicator to planners and decision makers, providing them a framework in analysing the performance of the economy. The GNP have

recently been criticised, especially from environmentalists, for being inconsistent in measuring economic growth or representing the quality of life.

There is a weakness in using GNP or NNP to measure economic growth because :

...GNP is constructed in a way that tends to divorce it from one of its underlying purposes: to indicate, broadly at least, the standard of living of the population. If pollution damages health, and health care expenditure rises, that is an increase in GNP - a rise in the 'standard of living' not a decrease. (Pearce, 1989: 12)

The national income accounts fails to account for expenditures required for environmental protection. Similarly if clean up expenditures are required for the improper sewage disposal in certain coastal tourism destinations, the GNP would increase, thus not indicating the actual negative impact.

Another example of the weakness in the national income accounting is that it does not provide a mechanism which allows natural resources used during production to be written off against the value of production as in the case of depreciation (Sham, 1992; Munasinghe, 1994). With ordinary capital goods, when they wear out and depreciate, it is debited against the income. However, in the case of natural capital goods such as trees when they are harvested, they are not debited although there is a reduction in the value of natural capital. Instead, they are entered as income and there is an increase in GNP.

It is necessary to include the environment into the national accounting methods since the environment and the economy are closely related. Moreover, incorporating natural resources in the national accounting procedures will make planners and decision makers more aware of the extent of resource depletion in the various development strategies. Indonesia's GNP grew by an average of 7.1% per annum between 1971-84, but the figure was reduced to 4% per annum when

it was adjusted for natural capital losses (Kelves, 1992 cited in Sham, 1993: 93). Although presently Malaysia do not practice an integrated system of national resource accounting, it is however being considered in the EPU's (Economic Planning Unit) 'National Conservation Strategy' (Sham, 1993).

2.8 EMPLOYMENT AND MANPOWER DEVELOPMENT

A manpower survey by MTPB estimated that 123,655 people in Malaysia were employed in the tourism industry in 1995 (MTPB, 1996). The breakdown of the employment for 1993 and 1994 provided by the various sectors of the industry is shown in Table 2.7.

The demand for manpower in the tourism industry will continue to increase due to the higher number of foreign tourists, more domestic tourism and the development of more tourism projects. Currently all sectors of the economy are experiencing labour shortages due to the rapid economic growth the country is experiencing. The unemployment rate in 1995 was at 2.8%, reflecting the economy was operating at full employment (MTPB, 1996).

The Government and the private sector have anticipated the shortage of skilled manpower in the tourism industry, and this issue was specifically look into in the Fifth Malaysia Plan. At present, the education and training in tourism is not sufficient to meet the needs of the growing industry. Institute Technology Mara (ITM), responsible to the ministry of Education and the National Productivity Centre (NPC) responsible to the Ministry of Trade & Industry are two main public agencies responsible for tourism education and training. Recently Universiti Utara Malaysia (UUM) have offered degree courses in tourism and there are also other private institutions offering a wide range of tourism programmes, which are often linked to overseas colleges and universities.

Table 2.7 Tourism Employment in Various Sectors 1993 - 1994

Descriptions	Hotel		Tour & Travel Agencies		Airlines		Others ¹	
	1993	1994	1993	1994	1993	1994	1993	1994
1. Total employed	56,977	61,174	20,405	21,416	20,378	19,982	22,579	3,488
2. Gender ratio (%)								
Male	63.2	60.0	55.4	51.5	52.9	73.8	n/a	n/a
Female	36.8	40.0	44.6	48.5	47.1	26.2	n/a	n/a
3. Employment levels (%)								
Managerial	8.5	8.6	19.3	n/a	13.0	15.4	n/a	n/a
Supervising	12.7	12.0	17.2	n/a	15.5	17.7	n/a	n/a
Skilled	34.9	37.4	42.9	n/a	68.6	42.6	n/a	n/a
Semi-skilled	29.4	29.1	16.9	n/a	2.7	16.6	n/a	n/a
Unskilled	14.4	12.7	3.6	n/a	0.2	7.7	n/a	n/a

Source: MTPB (1994-95)

Note: ¹ The 1994 Manpower Survey did not include those working in restaurants, retail outlets and shopping complexes. Hence the 1993 and 1994 total employed figures under 'Others' are incomparable.

Foreign employees from the Philippines, Sri Lanka and Indonesia can help to overcome the short term shortages of labour in the tourism industry. In the long term with the expansion of education and training programmes by both the public and private sector, this need will gradually disappear. There are however certain weaknesses in this strategy. Firstly, the urgency of training local personnel may decrease due to the easy access of foreign labour. Secondly, there will be many socio-economic problems associated with the employment of foreign workers. Difficulty in requesting them to leave once their contract expires, the preference of employers to hire them due to their willingness to accept a lower wage rate and also leakages through wage remittances.

2.9 ACCOMMODATION

Many of the international hotels are increasingly expanding their establishments in the Asia-Pacific, due to the rapidly growing economies of the nations and the increasing importance of tourism in the region. In Malaysia, the hotel room supply has been increasing steadily (Table 2.8), at an average of around 10% since 1991. There were 92 newly-opened hotels in 1995, bringing the total number of hotels to 1,220, supplying 76,373 rooms (MTPB, 1996).

Many major international hotel consortiums view Malaysia as having a healthy environment for their investments. Many hotels are keen to expand their operation in Malaysia because of its buoyant economy and the enormous prospects of the tourism industry which is fully supported by the Government. Hotel groups such as Marriott, Hyatt, Westin, Sheraton, New World, Nikko and Mandarin Oriental are among those who plan to venture into the Malaysian hotel industry in the near future (Schlentrich & Ng, 1994). According to Pannell Kerr Foster (cited in EIU, 1994), a total of 27 hotel and resort projects have been planned over the five year period of 1993 to 1998.

Table 2.8 Supply of Accommodation 1989-1994

Year	Hotel Supply	Growth (%)	Rooms Supply	Growth (%)
1989	958	-	43,149	-
1990	989	3.2	45,032	4.4
1991	1,049	6.1	49,874	10.8
1992	1,085	3.4	55,866	12.0
1993	1,090	0.4	61,005	9.2
1994	1,128	3.5	65,907	8.0
1995	1,220	8.2	76,373	15.9

Source: MTPB (1990-96)

The majority of hotels are in Kuala Lumpur, the major gateway city which has around 12,400 rooms while Penang has close to 8,500 rooms. The distribution of hotels are spatially concentrated on the western stretch of Peninsular Malaysia (Oppermann, 1992).

Most hotels in Malaysia are in the four and five-star categories. There is a shortage of budget accommodation, mainly due to the increasing demand from domestic tourists and foreign tourists especially those from Singapore, Thailand and China. To ease this shortage, various incentives are given by the Government to encourage the private sector to built more budget class hotels. However, the increasing cost of construction and land has made the development of this range of accommodation less attractive for investors, especially in Kuala Lumpur. Instead these mid-price hotels are expanding into secondary cities such as Penang, Kota Kinabalu and Kuching, enabling tourists to have more choices (Schlentrach & Ng, 1994).

The performance of the Malaysian hotel industry in 1995 was encouraging, with average occupancy rate of 65.5%, an increase of 0.2 percent compared to the previous year (MTPB, 1996). The occupancy rate is mainly influenced by the market forces of supply and demand. In 1993, some hotels have reduced their rates due to the excess capacity and increased competition. However in 1994, with the second Visit Malaysia Year campaign and aggressive tourism promotions by the Government and the private sectors, business in the hotel industry have pick up and have remained stable in 1995. EIU (1994) predicts that the overall leisure market in South-east Asia is shifting towards the lower category hotels, foreseeing a more difficult time for the 5-star properties, due to the increased competition.

2.10 TRANSPORTATION SYSTEM

Advances in the transport technology have greatly increased the accessibility between markets and destinations. A major influence to the number of tourists visiting Malaysia is the accessibility to, from and within Malaysia.

Air Transport

Long haul markets are dependent on the air accessibility and is an important segment of the market, having expenditure well above average compared to arrivals from neighbouring countries of Singapore, Thailand and Indonesia. At present, Malaysia has 6 international airports - Kuala Lumpur, Pulau Pinang, Kota Kinabalu, Johor Baru, Kuching and Tawau and 12 domestic airports - Kota Bharu, Kuala Terengganu, Kuantan, Melaka, Alor Setar, Ipoh, Miri, Sibul, Bintulu, Labuan, Sandakan, and Lahad Datu. Besides this, it has 17 airstrips to service the rural areas.

To cater for the higher volume of air traffic, a new airport, being the nation's largest one is under construction in Sepang, which is around 55

kilometres from Kuala Lumpur and it is scheduled to be open in 1997. The new airport is a catalyst to the tourism industry in Malaysia and is vital for the expansion of the national carrier, Malaysia Airlines (MAS). At the early stage it will have two runways and a capacity to handle 25 million passengers per year. Expansion will be carried out in different phases and once completed it will have four runways and is capable of handling 100 million passengers per year (EIU, 1994).

According to MTPB (1996), the number of international scheduled flights per week in 1995 were 825 per week, an increase of 100 flights (13.8%) compared to the previous year. Correspondingly the seat capacity for 1995 was 177,110 seats per week, a 20.6% increase from 1994. The national carrier, Malaysia Airlines (MAS) is currently expanding, in terms of fleet and operation. New long haul destinations in 1994 include Rome, Cape Town, Buenos Aires and Osaka. Apart from the regular passenger flights, MAS also offer various interesting packages under its Golden Holidays tour programmes to many domestic and international destinations. Besides MAS, other domestic carrier such as Berjaya Air Charter, Pelangi Air and Mofaz Air also offer services to selected tourist destinations.

Rail

Malayan Railway or Keretapi Tanah Melayu (KTM) provides economical and convenient rail service throughout Peninsular Malaysia. The railway system here covers more than 1600 kilometres where two main lines are being operated to service its passengers. One line runs along the west coast, where Singapore in the south is linked to Butterworth in the north by a line more than 787 kilometres. From Bukit Mertajam, not far from Butterworth the line extends to the north and join the State Railway of Thailand at the border town of Padang Besar. The other east coast line which is 526 kilometres long diverts from the west coast line at Gemas and runs up to the north-eastern part of the peninsular

to Kota Bharu which also links to the Thai railways at the border. Promotions undertaken by KTM include the issuing of special passes known as the Visit Malaysia Pass to foreign tourists, excluding Singaporeans. These value for money passes offer unlimited travel for a specified period of time.

A joint effort by the ASEAN members to further promote tourism in the region is the Eastern & Oriental Express, a RM\$50 million train investment developed by a British, Malaysian and Thai consortium. Launched in September 1993, it offers a once weekly luxurious train service, travelling 2,000 kilometres between Singapore and Bangkok, passing through Kuala Lumpur and the west coast of Peninsular Malaysia.

Roads

The recent completion of the North-South highway have increased the accessibility of many tourists destinations, while reducing travelling time considerably. This expressway provides a multiple carriageway travel by car from Singapore in the south to Penang in the north. However, the traffic congestion in cities such as Kuala Lumpur and Johor Baru have increased considerably. To ease the problem, the Light Rail Transit (LRT) is under construction in Kuala Lumpur while a second causeway is being proposed in Johor Baru.

2.11 DOMESTIC TOURISM

The holiday taking culture is still relatively new for many Malaysians. Previously, most of the trips taken during weekends or holidays have been going back to one's hometown or village, visiting parents, relatives and friends. This type of trip, more commonly known as 'balik kampung' (going back to the village) is frequently undertaken by urban dwellers, a break from the hectic lifestyles in the city and going back to 'familiar surroundings' (Badri, 1991).

However, new trends have been emerging in the travel patterns of many Malaysians, especially in the middle and upper class categories. More are willing to travel to the various beach and hill resorts, islands, national parks, historical and cultural sites. Besides the increasing awareness of the attractiveness of such areas, this trend is due to the encouraging performance of the economy which have led to increased leisure time and higher disposable income for the population at large. Using 1978 prices, Malaysia's GNP in 1995 was estimated to be around RM113 billion and GNP per capita was RM9,947 which puts Malaysia among the more successful developing countries (GOM, 1993). Moreover, improvement in the transportation network have also increased the accessibility of many destinations.

Domestic tourism receipts are currently rising at an estimated rate of around 15% per year. It was estimated that the number of person trips made by domestic travellers increased from about 20.3 million in 1990 to 25 million in 1993 and the average expenditure per person per trip increasing from RM130 to RM230 (GOM, 1993). Hotels in Malaysia received around 6 million domestic guests in 1993, a 51% share, exceeding the number of foreign guests (MTPB, 1994). Realising the potentials of this market and to cater their needs, the government is providing incentives for the construction of more budget class hotels.

The purpose for domestic trips is mainly for business, followed by visiting friends and relatives, and vacations (GOM, 1993). Domestic travellers tend to create an awareness of the different attractions in the various states and help in the redistribution of income between the regions. The media such as television, radio and the local newspapers are some of the possible methods of transmitting tourism information to the population.

The outbound travel from Malaysia is considerably high, around 20.6 million trips in 1995 (MTPB, 1996). The government is strongly concerned with the huge amount of money leaving the country and have been recommending the price-conscious domestic tourists regarding the value for money of local holidays. Among the strategies in the MTPB's 'Marketing Plan 1994' in promoting domestic tourism are: encouraging Malaysians to 'buy Malaysia', creating awareness of the products available, attractive priced tour packages, tourism as a subject in the school syllabus, and encouraging the local private and public sectors to utilise local destinations and venues for their MICE oriented activities.

2.12 TOURISM POLICY

The objectives of Malaysia's tourism policy are as follows :

- To generate foreign exchange earnings;
- To foster national unity;
- To generate employment;
- To encourage regional development via equitable economic and social development throughout the country; and
- To create an enhanced image of Malaysia internationally.

(Source: MOCAT, 1994: 3)

A Master Plan for the development of the tourist industry in Malaysia was formulated in 1975, in an effort to balance the development of tourism in Malaysia. The Master Plan identified eight tourist regions with tourist corridors in the rural areas linking each other. Six of these are in Peninsular Malaysia (Figure 2.2), i.e. Kota Bharu-Kuala Trengganu, Kuantan, and Johore tourist regions in the eastern part, while Kuala Lumpur-Malacca, Perak and Penang-Langkawi in the western part of the peninsular. The other two tourist regions are Sabah and Sarawak in East Malaysia. Among the primary objectives of the plan

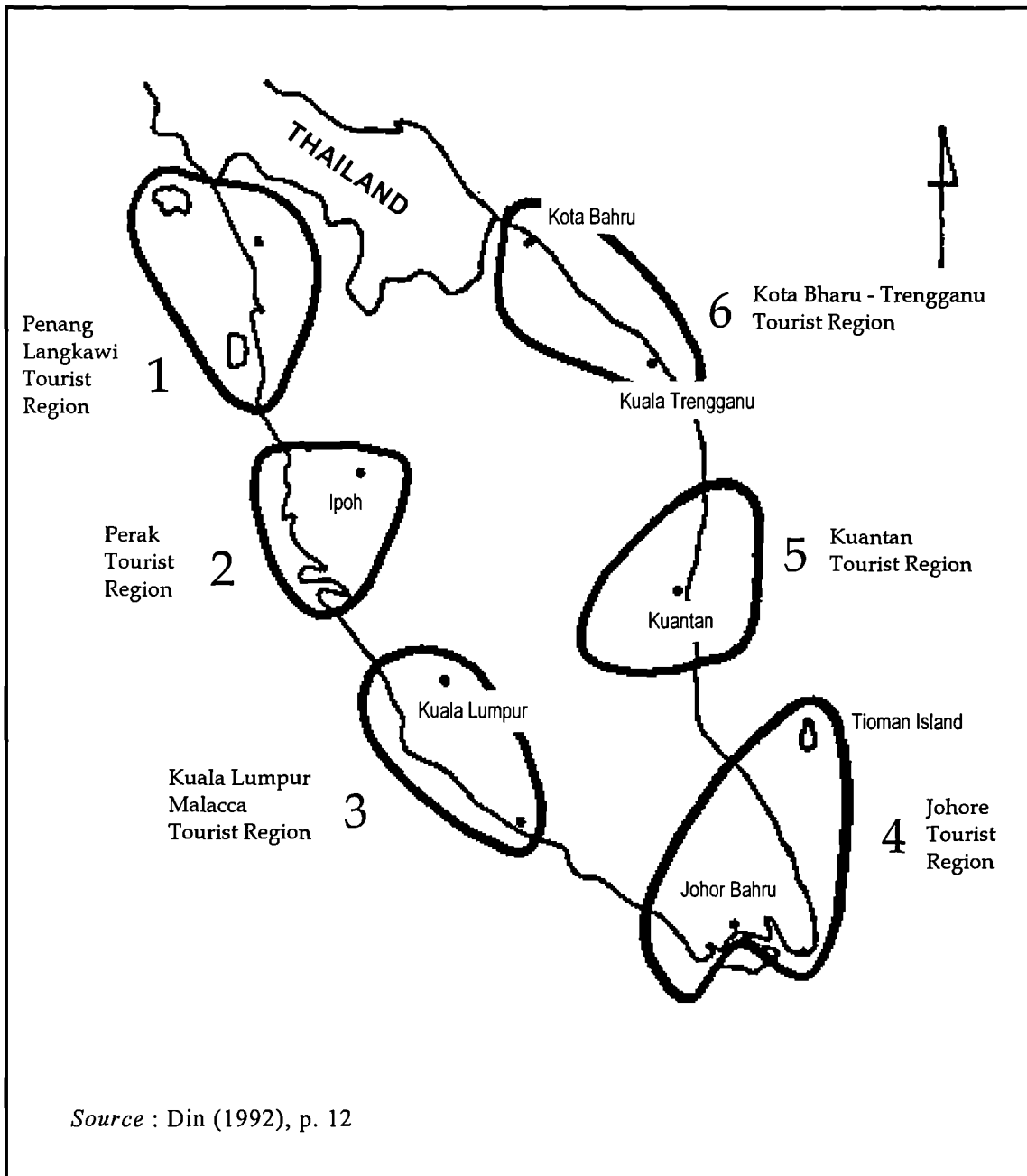


Figure 2.2 Peninsular Malaysia: Six Tourist Regions

is to promote the tourism industry in an orderly and balanced manner within the framework of the national development plan and the New Economic Policy (NEP) (TDCM, 1975). National unity is the main objective of NEP and this would be achieved through the eradication of poverty irrespective of race and the restructuring of the Malaysian society to reduce and eventually eliminate the existence of race with economic function and geographical location (GOM, 1976, 1981). The development of tourist facilities away from the urban areas would help to diversify the resource base of the tourism industry and the redistribution of wealth, narrowing the economic imbalances in the urban-rural regions as proposed in the NEP (GOM, 1976; Din, 1982).

The 1975 Tourism Master Plan was to assure proper planning through regulation and control measures in addition to providing mandatory and proficient guidelines. The Plan provides planning for a period of five years and is an initial indication of the Government's support towards the tourism industry. However a long term comprehensive plan is essential to ensure all sectors involved will benefit from tourism while minimising the accompanying adverse effects. Realising this, the formulation of a national tourism plan was proposed in the Sixth Malaysia Plan (1991-1995) report. This plan will provide new guidelines for the future expansion of the industry, emphasising a greater collaboration between the Government and the private sector and increasing the participation of the private sector in tourism development (GOM, 1991).

Tourism has always been considered in the nation's five year development plan, but recently it has been regarded as a priority sector with huge funds allocated for its development. During the Second Malaysia Plan (1971-1975), the amount allocated was RM17.2 million, increasing substantially to RM533.9 million in the Sixth Malaysia Plan (1991-1995), which was later, during its mid-term review, revised to RM719.1 million (GOM, 1971, 1991, 1993; see Table 2.9).

Second Malaysia Plan

The government's involvement in tourism development started in the early 1970's. In the Second Malaysia Plan, 1971-1975, the government had allocated RM17.2 million for tourism development. During this period, the emphasis of tourism policy was to foster the development of tourist sites and facilities in each state, the development of basic infrastructure such as highways and airports and the expansion of air travel through East Malaysia. Strategies on promotion included the establishment of the Tourist Development Corporation (TDC) and overseas tourist promotion offices to coordinate development in the public sector as well as between the public and private sectors.

Third Malaysia Plan

The policy guidelines formulated earlier was continued in the Third Malaysian Plan (1976-1980), an allocation of RM4.4 million was made available

Table 2.9 Tourism Development Allocation (RM million) during the Fifth and Sixth Malaysia Plans

Programmes	5MP (1986 - 90)		6MP (1991-95)		
	Allocation	Expenditure	Allocation	Revision	Expend. 1991-93
Preservation of national/historical heritage	1.5	0.7	41.1	41.1	6.0
Tourist Accommodation	2.0	0	171.7	169.8	27.5
Beautification/cleanliness programmes and environmental protection	2.5	2.5	43.6	43.6	10.1
Cultural product development	2.5	2.5	112.9	150.1	54.6
Facilities and infrastructure	79.2	76.7	157.4	307.3	116.1
Others	52.8	49.7	7.2	7.2	4.8
TOTAL	140.5	132.1	533.9	719.1	219.1

Source : GOM (1991: 247) and GOM (1993: 16)

to the tourism industry, an increase of more than 100% compared to the previous plan. Various incentives were given to stimulate the development of new accommodation, recreational facilities and the participation of native Malay in the tourism industry. The Government became more involved in projects related to tourism and funds were channelled to the various government development agencies for projects such as construction of new or extension of existing hotels, visitor centres facilities, handicraft centres and facilities in national parks.

Fourth Malaysia Plan

The emphasis of the Fourth Malaysian Plan (1981-1985) was the manpower development in the tourism sector. Due to the rapid expansion of the hotel industry, there was a shortage of qualified personnel, particularly at the supervisory and skilled levels. Various training and courses were provided for tour agencies and guides. A hotel and catering school for training skilled and semi-skilled manpower in hotel administration and management was established. Many tourism projects were also undertaken by the public sector especially in areas where the private sector were slow or reluctant to venture. The government had allocated RM148.5 million for the development of tourism during this period. A Tourist Police Unit was formed by the Royal Malaysian Police to ensure the safety and security of tourists.

Fifth Malaysia Plan

The main objective of the Fifth Malaysian Plan (1986-1990) was to achieve a total commitment from the public sector, private sector and the general public. The main policy was to coordinate the efforts of all related government agencies and the private sector. Privatisation policy was being actively pursued with many of the TDC projects being privatised and plans were also made to privatise the existing Government rest houses.

Financial institutions in their lending policies were expected to place emphasis on financing tourism projects related to the construction of low and medium-priced accommodation, and other facilities that would promote domestic tourism and also to serve the international price-conscious traveller. During this period, promotional efforts such as market research, package tour arrangements and promotional campaigns on vacations and special interests tourism have been intensified.

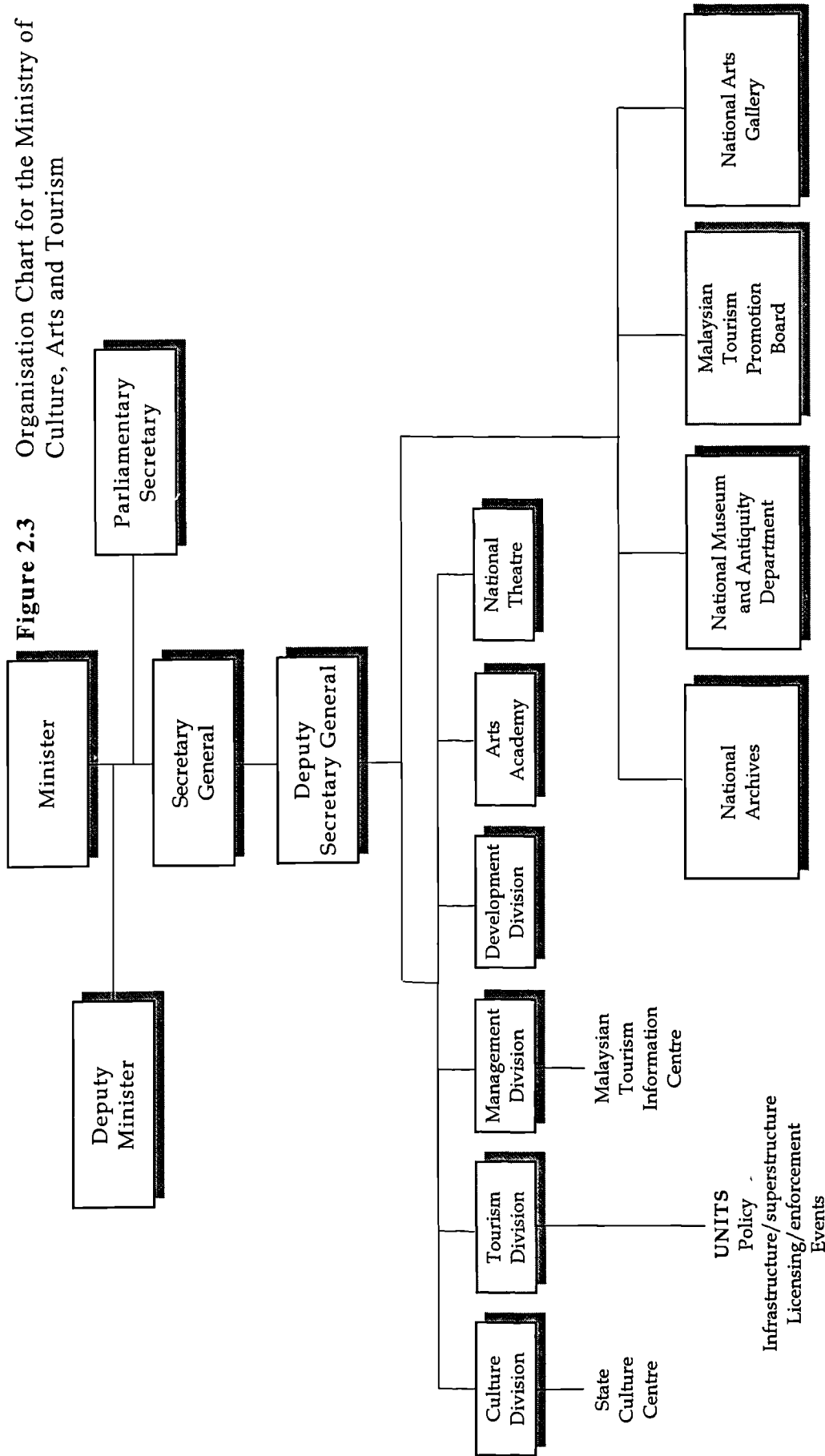
Incentives For Tourism Development

The provision of the *Investment Incentives Act 1968*, acts as a catalyst to stimulate the development of the tourism industry. The Act provided several incentives in the investment of new hotels as well as in the expansion and modernisation of existing ones. Most of the incentives were related to income and investment taxes (refer to Appendix A).

These incentives were more beneficial for the upmarket international class hotels compared to the budget accommodation. The Act also lacks the incentives to attract satisfactory level of investment in the non-accommodation tourism attractions, which is capable of encouraging domestic tourism and has the capability of increasing the average length of stay of foreign tourists. Weaknesses in defining the geographical classification of development areas and minor differences in the incentives between the regions resulted in the disproportion of investment, favouring the state capitals rather than new developing areas, resulting in the higher supply of accommodation in Kuala Lumpur and Penang (Muda, 1992).

Due to the shortcomings of the *Investment Incentives Act 1968*, it was replaced with the *Promotion of Investment Act 1986*, which came into effect from January 1986, providing a more comprehensive range of incentives to

Figure 2.3 Organisation Chart for the Ministry of Culture, Arts and Tourism



Source : MAMPU (1994), p. 416

Table 2.10 The Objectives and Functions of the National Tourism Agencies in Malaysia

	Objective(s)	Functions
Ministry of Culture, Arts and Tourism (MOCAT)	<ul style="list-style-type: none"> to develop and introduce the Malaysian National Culture as well as to promote tourism as one of the main industries 	<ul style="list-style-type: none"> to plan, monitor and supervise the implementation of the National Culture Policy, to counsel, formulate and supervise policies pertaining to the development of culture, arts and tourism industry, to monitor and supervise the operation of various departments and agencies under the Ministry, to plan programmes for the development, promotion, research and communication in the areas of culture, arts and tourism in line with set policies, to implement, supervise and monitor culture, arts and tourism programmes, and to evaluate the effectiveness of the culture and tourism policies and programmes.
Malaysia Tourism Promotion Board (MTPB)	<ul style="list-style-type: none"> to increase foreign visitor arrivals, to increase the average length of stay with a view to increase revenue from tourism, to stimulate the growth of domestic tourism, and to increase Malaysia's share of the convention market 	<ul style="list-style-type: none"> to stimulate and promote tourism to and within Malaysia, to stimulate, promote and market Malaysia as a tourist destination, both internationally and locally, to co-ordinate any marketing or promotional activity in relation to tourism conducted by any government department, or governmental or non-governmental agency or organisation, and to make recommendations to the Minister as to the methods, measures and programmes to be adopted to facilitate and stimulate the development and promotion of the tourism industry in Malaysia and, where approved by the Minister, to implement or assist in the implementation of the methods, measures and programmes in question.

Source : Rahimatsah (1996: 46)

accelerate the growth in the tourism industry (refer to Appendix B). Besides this, Appendix C indicates other incentives provided by the government.

Ministry of Culture, Arts and Tourism (MOCAT) and Malaysia Tourism Promotion Board (MTPB)

The placement of tourism under the same ministry as culture (Figure 2.3) has a national purpose, that is to create a local awareness of the cultural heritage and a national identity among the multi-ethnic population. MOCAT's functions are related to the planning, implementing, monitoring the development of tourism and undertaking research activities (see Table 2.10). Under the *Tourism Industry Act 1992* (GOM, 1992), which supersedes the *Tourism Development Act 1975*, licensing and enforcement for the tourism industry, inclusive of tour operators, tourist guides and training institutions, comes directly under MOCAT.

The responsibilities of MTPB are those associated with promoting and marketing Malaysia locally and internationally (Muda, 1992). Among its objectives include increasing the number of tourists and their length of stay, and expanding Malaysia's share of the convention market (see Table 2.10).

2.13 NATIONAL ENVIRONMENTAL POLICY

The government's reaction to environmental problems in the early days was through legislation, with the first legislation being introduced in 1920. Presently, there are 43 environment related legislation in Malaysia which include the *Forest Enactment, 1934*; *Land Conservation Act, 1960*; and *Protection of Wildlife Act, 1972* (Appendix G). Environmental legislation before 1974 was mainly sectoral in nature, concentrating on specific issues and promoting sound practices in specific sectors (Sham, 1993). The sector-based legislation faces difficulty due to increasingly complicated nature of environmental problems since it lacks an integrated approach which consequently led to the formulation

of the Environmental Quality Act (EQA). This Act was passed by parliament in 1974, providing a more comprehensive legislation for environmental management in Malaysia. The EQA was officially advocated in the Third Malaysia Plan and continued to be emphasised in the Fifth Malaysia Plan. The National Environmental Policy objectives as contained in the Third and Fifth Malaysia Plans (Sham, 1993: 71) are as follows :

- To maintain a clean and healthy environment;
- To maintain the quality of the environment relative to the needs of the growing population;
- To minimise the impact of the growing population and human activities relating to mineral exploration, deforestation, agriculture, urbanisation, tourism, and the development of other resources on the environment;
- To balance the goals of socio-economic development and the need to bring the benefits of development to a wide spectrum of the population, against the maintenance of sound environmental conditions;
- To place more emphasis on prevention through conservation rather than on curative measures, inter alia by preserving the country's unique and diverse cultural and natural heritage;
- To incorporate an environmental dimension in project planning and implementation, inter alia by determining the implications of the proposed projects and the costs of the required environmental mitigation measures through the conduct of environmental impact assessment studies; and
- To promote greater cooperation and increased coordination among relevant federal and state authorities as well as among the ASEAN governments.

The Environmental Impact Assessment (EIA) was enforced in April, 1988 in recognition that preventive measures are needed in the development of new projects and the expansion of present ones, including tourism through the 1985 amendment of the *Environmental Quality Act 1974*. Unlike the previous legislation which are remedial in nature, the EIA is a preventive measure and attempts to incorporate all environmental considerations in the planning stage. Developers of tourism projects should submit an EIA to the Department of Environment (DOE) to be passed, prior to their approval by the relevant federal, state or local authorities. This requirement is only for 'the building of resorts and hotels at the sea side which exceeds the capacity of 80 rooms and the development of tourism attractions and recreational areas at National Parks' (Zainuddin, 1995: 11).

However, many tourism projects are exempted from this requirement, and are only advised to incorporate the environmental dimension in their development proposals. Another weakness is at the implementation stage, where many of the measures recommended in the EIA are not being strictly adhered to and enforcement is being restricted by the lack of manpower and expertise in the controlling agencies. The penalties imposed might also not be sufficient enough to deter the profit motivated developers, since it is a very small sum compared to the total cost of the project.

Nevertheless, the EIA is an effective tool in environmental management. Procedures and review process could further be improved to increase its effectiveness. Moreover, there need to be greater public awareness on environmental issues to enable them to participate more meaningfully in the EIA process. A report prepared by Frank Small Associates for the DOE suggested that environmental awareness among Malaysians is still low and as a public issue it was ranked seven in a list of eight public issues (DOE, 1986). Increase funding and manpower in the Department of Environment (DOE), the main agency

responsible for administering the EIA requirements are some of the other factors which could improve the efficiency of the EIA.

2.14 CONCLUSION

The government plays a significant role in influencing the trend of tourism development. The tourism objectives set by the government will reflect the purpose of having such development and usually supplements the broader national socio-political and economic objectives.

As mentioned before, one of the main objectives of the 1975 Tourism Master Plan was to stimulate regional development. However, the distribution of hotels and that of hotel guests are spatially concentrated on the western stretch of Peninsular Malaysia. In 1993, hotels in the west coast received an estimated total of 7.3 million hotel guests, with Kuala Lumpur receiving the majority while those in the east coast towns of Peninsular Malaysia received only a total of 931,929 guests (MTPB, 1994). Thus, tourism as a development strategy to promote redistribution through the expansion of new tourist facilities as stated in the NEP has its shortcomings and the spatial differences in the economic benefits of tourism is apparent.

The economic contribution of tourism is enormous. Furthermore, the objectives of MOCAT and MTPB (Table 2.10), both significantly concentrate on the economic aspect of tourism. Although the economic viability of tourism development is essential, but there is also an urgency for decision-makers to understand the broader implications of tourism development. Measuring the achievement of the tourism sector by merely looking at tourist arrival numbers can be misleading, more attention should also be given to the social and environmental aspects of tourism which will influence the long-term success of the industry as advocated in the National Environmental Policy. Insights should

be gained from the experiences of other developing countries where the lack of planning has led to high foreign ownership in the tourism industry and the dominance of market forces which tend to favour for rapid development and short term benefits. There is therefore a need of proper surveillance, carefully planned and integrated approach to tourism development.

Although there are some shortcomings, tourism is still an important tool in the economic development of Malaysia. However, it is important to establish the type of tourism appropriate for an area and to consider what types of economic benefits are being sought and to whom these benefits are directed. Only then, will tourism be able to achieve the economic, social and environmental goals of the nation.

Chapter Three

TOURISM AND CONSERVATION

3.1 BACKGROUND

This chapter will first explore the concept of protected areas, the various categories of protected areas and the objectives of such areas. Secondly, it will look at how tourism was first introduced in national parks, an important component of the protected areas. Thirdly, it will view the conflicting objectives of national parks and the dilemma between tourism and conservation. Finally, it will examine various ideological views on how humans interact with their environment, which will influence the type of tourism policy being encouraged and the future direction of development.

The earliest documented evidence of the present day concept of protected areas is probably that of the Emperor Ashoka of India, where in the year 252 B.C., had ordered the protection of animals, fish and forests (MacKinnon, Child & Thorsell, 1986). In Europe, many of the areas had been declared by the medieval rulers as hunting reserves. King William I of England in the year 1084 A.D. had ordered the preparation of the Domesday Book - an inventory of all the lands, forests, fishing areas, cultural areas, hunting preserves and productive resources of his kingdom as the foundation for the country's administration and development framework (MacKinnon *et al.*, 1986).

The modern approach to conservation, that is the wise maintenance and utilisation of the earth's resources is basically related to the two ancient principles: planning resource management on the basis of accurate inventory and taking precautions to assure that resources are not depleted (MacKinnon *et al.*, 1986).

Protected areas today represent the single most important method and probably is the last refuge of conserving biological diversity globally (Brandon, 1995). Their establishment ensures the conservation of earth's natural resources to better meet the economic and cultural needs of the present and future generation. However, the tendency to regard protected areas as 'islands' set apart or isolated from their surroundings is basically selfish, reflecting an anti-development approach. On the other hand, when protected areas are planned and managed appropriately, they are capable of contributing many benefits to society. They contribute economically to the nation in terms of tourism earnings, play a fundamental role in the social and economic development of rural environments, provide an escape to allow urban inhabitants to enjoy the beauty of nature and help conserve the world's natural resources.

3.2 PROTECTED AREAS

The development of natural sciences especially in ecology has instigated a more comprehensive classification of natural areas. They are known as protected areas, where the national parks is one category in the overall classification. As development progress and rate of environmental change accelerates, protected areas are being established to conserve areas representing wild nature.

Today, protected areas are present in almost all countries in the world. They are remains of the landscape, set aside for protection and are not dominated by human activities and development. Man is then allowed to visit these areas to appreciate, enjoy and experience the scenic natural landscapes. Besides their beauty, protected areas are vital in sustaining human society and conserving global biological diversity. The management of protected areas is still relatively new, with the first international conference on the topic held in Seattle in 1972. Recognising the increasing importance of such areas in developing countries, the

Third World Congress on National Parks and Protected Areas was held on the island of Bali, Indonesia in October, 1982, the first to be held in a tropical country (MacKinnon *et al.*, 1986).

The International Union for the Conservation of Nature (IUCN, 1994: 7) defined protected area as :

...an area of land or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

IUCN (1994) has recognised over 9000 areas to be included in the 'United Nations List' of protected areas. Areas in this list are those greater than 1000 ha or 100 ha in the case of whole islands, cumulatively accounting for 926 million ha or around 5 percent of the Earth's land. These protected areas will have specific management objectives and administered by a recognised management agency.

Ehrenfeld (1978); Conrad (1980); Rolston (1985); Lemons (1987); Dixon and Sherman (1990) and the IVth World Congress on National Parks and Protected Areas (IUCN, 1993) stress the importance of these areas and their values which include :

- *Market values* - enhance the material life of humans and add to economic well-being, providing major direct and indirect benefits to local and national economies. Examples include tourism foreign exchange earnings, parks' concessions and stimulation of local economies.
- *Recreational values* - these include activities such as hiking, climbing, wilderness photography, bird watching, wildlife viewing and values derived from solitude and contemplation.
- *Life support values* - help to maintain the diversity of ecosystems, species, genetic varieties and ecological processes (including the

regulation of water flow and climate) which are vital for the support of all life on Earth and for the improvement of human social and economic conditions.

- *Genetic values* - protect genetic varieties and species, which are vital in meeting human needs, for example in agriculture and medicine, and are the basis for human social, cultural adaptation in an uncertain and changing world.
- *Hydrological values/watershed protection* - maintaining the natural vegetative cover helps control erosion, reduces sedimentation and flooding downstream and regulate stream flows, thus playing an important role in regulating water resources of the surrounding region.
- *Aesthetic values* - reflected in the living richness, natural beauty and the diversity of landscapes. It is a source of inspiration and provide opportunities for the enhancement of oneself through the environment.
- *Cultural values* - may be homes to communities of people with traditional cultures and irreplaceable knowledge of nature;
- *Historical values* - may contain landscapes which reflect a long history of interaction between people and their environment;
- *Therapeutic values* - use of natural parks' resources for non-clinical, therapeutic recreation. Could also be used for the treatment of clinically diagnosed and psychologically-disturbed people.
- *Character-building values* - natural parks' ecosystems are used by individuals and organisation to build character by acquiring and testing new skills, self competence, team work, success and failure in new and difficult conditions, and in gaining a sense of humility and proportion.
- *Scientific values* - provides opportunities for research in pure and applied sciences. Research is often integrated with education, especially for field study by students.
- *Existence and option values* - many people derive a sense of well-being simply from knowing that natural areas exist, this is known as the

existence value, while option value is the opportunity of visiting these areas in future.

- *Future values* - for every species in natural areas, there is a certain possibility that a new use will be discovered that can yield benefits. If extinction prevails, this opportunity is lost forever. Quasi-option value can be represented as the expected value of information that might be gained by delaying an irreversible decision.

Although protected areas have many benefits, in practice there are many problems associated with them. These problems can be classified as being internal and external. Internal difficulties are shortcomings within its own structure, while external difficulties are due to the ineffectiveness of integrating protected areas into other aspects of public policy.

The IVth World Congress (IUCN, 1993) in Caracas identified the following as the principal external problems facing protected areas:

- the tendency to treat protected areas as 'islands' set apart from the areas around;
- the tendency to see protected areas as an alternative to, rather than one element within, a national strategy for conservation;
- the failure to integrate protected areas requirements into policies for the sectors (e.g. agriculture, tourism, transport) which affect them;
- the inadequate recognition of the needs and interests of local people upon which the long-term survival of protected areas will depend; and
- limited public and institutional support for protected areas.

The internal problems are closely linked to the external, but often occur due to the lack of support given to protected areas, such as restricted financial resources, insufficient scientific and other information, lack of authority and sufficient trained staff to manage the protected areas. Both, these external and

internal factors weaken the effectiveness of protected areas in accomplishing their objectives, consequently attracting criticism. These criticisms often reflect the tendency to treat protected areas in isolation, a lack of integration of protected areas into policies for other sectors and inadequate recognition of the needs and interests of local people.

Table 3.1 Categories of Protected Areas

Categories	Descriptions
I	Strict Nature Reserves (Ia) and Wilderness Areas (Ib): areas managed mainly for science and wilderness protection
II	National Parks: areas managed mainly for ecosystem conservation and recreation
III	Natural Monument/Natural Landmark: areas managed mainly for conservation of specific natural features
IV	Habitat and Species Management Areas: areas mainly for conservation through management intervention
V	Protected Landscape/Seascape: areas managed mainly for landscape/seascape conservation and recreation
VI	Managed Resource Protected Area: areas managed mainly for the sustainable use of natural ecosystems

Source : IUCN (1994)

3.3 PROTECTED AREAS SYSTEM

Through its Commission on National Parks and Protected Areas, IUCN has promoted the concept of management categories for protected areas. Its first published guidance on this topic in 1978 has recently been updated in the new Guidelines for Protected Area Management Categories (IUCN, 1994).

The concept of management categories for protected areas is based on the approach that protected areas are best classified according to their management objectives. By identifying the objectives for which they are managed, it is possible to classify all protected areas into six main categories (Table 3.1). In any

Table 3.2 Matrix of Management Objectives

Management Objectives	Categories						
	Ia	Ib	II	III	IV	V	VI
Scientific research	1	3	2	2	2	2	3
Wilderness protection	2	1	2	3	3	-	2
Preserve species and genetic diversity	1	2	1	1	1	2	1
Maintain environmental services	2	1	1	-	1	2	1
Protection of special features	-	-	2	1	3	1	3
Tourism and recreation	-	2	1	1	3	1	3
Education	-	-	2	2	2	2	3
Sustainable use of resources	-	3	3	-	2	2	1
Maintenance of cultural/traditional attributes	-	-	-	-	-	1	2

Source : IUCN (1994), p. 8

Key : 1 Primary objective
 2 Secondary objective
 3 Acceptable objective
 - not applicable

one protected area, certain objectives are more significant than others. The priority of objectives will then determine the different types or categories of protected areas (Table 3.2). National parks are classified under category II, with the following management objectives (IUCN, 1994: 19) :

- *to protect natural and scenic areas of national and international significance for spiritual, scientific, educational, recreational or tourist purposes;*
- *to perpetuate, in as natural a state as possible, representative examples of physiographic regions, biotic communities, genetic resources, and species, to provide ecological stability and diversity;*
- *to manage visitor use for inspirational, educational, cultural and recreational purposes at a level which will maintain the area in a natural or near natural state;*

- *to eliminate and thereafter prevent exploitation or occupation inimical to the purposes of designation;*
- *to maintain respect for the ecological, geomorphologic, sacred or aesthetic attributes which warranted designation; and*
- *to take into account the needs of indigenous people, including subsistence resource use, in so far as these will not adversely affect the other objectives of management.*

In this study, IUCN (1994: 19) definition of national park is adopted which defined it as a natural area of land and/or sea, designated to :

- a. protect the ecological integrity of one or more ecosystems for present and future generations;*
- b. exclude exploitation or occupation inimical to the purposes of designation of the area; and*
- c. provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.*

In Malaysia, the ownership and management of national parks is the direct responsibility of the federal or state government, and the public's enjoyment must be consistent with the main objective of conservation.

3.4 CREATION OF NATIONAL PARKS

The establishment of national parks is regarded as the United States' major accomplishment in conservation. The world's first modern protected area, the Yellowstone National Park in Wyoming, was established by the US Congress in 1872. Certain studies on the origins of the national parks in the United States suggested that these parks were first established due to the nation's search for a national identity and the glorification of the scenic wonders revealed by the exploration and conquest of the West (Runte,1979). Writers like Emerson and Thoreau, conservationists and landscape architects such as John Muir and F.L.

Olsted were among those who have influenced the nation regarding the concept of the national park (Runte, 1979). The growing nation then, was not strongly concerned with conservation but the national park was seen as satisfying the country's deeply felt desire to have a national heritage (Haber, 1986). This was the beginning of the realisation of the value of protected areas to the overall population and the concept of a park 'for the people' rather than being reserved for certain elite groups, such as hunting areas for the royalty.

In North America, during the first National Parks Bills in the late nineteenth century, an area need to be proved as 'economically worthless' before it could be designated as a national park. Land that could be exploited for timber or minerals is excluded, thus destroying the possibility of preserving whole biological units, because to majority of the population, it was meaningless to leave massive area of public land intentionally without any use (Runte, 1979). However in 1910, G. Pinchot's principle of 'utilitarian conservation' was agreed, where a sustainable use of timber, waterpower and other resources of national parks land were regarded as fully compatible with conservation objectives, e.g. when a reservoir was built within the Yosemite National Park (Haber, 1986).

Tourism came into the scene when railroad companies made the young national parks more accessible. Hotels were built in majestic style, whereby during the day tourists were taken on guided tours into the park and entertained lavishly at night. These parks were then regarded as attractive tourist destinations and possibly future holiday areas.

Moreover, the Government had also started promoting domestic tourism due to the high expenditure incurred by Americans having holidays abroad. In 1915, the estimated amount was US\$500 million per year, thus the promotion

campaign of 'See America first' was launched (Haber, 1986). Emphasis was on creating an awareness among Americans on the scenic landscape of their nation and the national parks benefit directly from this cultural nationalism, both aesthetically and economically. The national parks received extensive support from the public and with the concept of comprehensive preservation with touristic use replacing the principle of utilitarian conservation.

The National Park Service Act of 25 August 1916 (Haber, 1986: 342), stated the objectives of the service to be :

...to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.

More visitor facilities, roads were built to increase accessibility and indirectly emphasis was on enjoyment rather than preservation of the natural resources.

The American concept of a national park soon expanded to other countries but there were some constraints, especially in Europe, where there is a limitation of extensive virgin land suitable for such development. In Britain, national parks were established in England and Wales by the National Parks and Access to the Countryside Act of 1949. Unlike other national parks, these parks are 'working' or 'living' landscapes, incorporating productive farmland and urban areas where a multitude of land uses have to be satisfied. The United Kingdom's national parks do not conform to the IUCN definition and are excluded from the IUCN list of internationally recognised national parks, although they seem to serve the same broad purposes. Despite their 'natural beauty', their exclusion is because they have been materially altered by humans and to a high degree managed by man or in the current jargon, it is a 'cultural

landscape' (MacEwen & MacEwen, 1982). Given these circumstances, the British attempt to achieve the twin purposes of conservation and recreation is even more challenging.

The national park idea was also being considered for the European territories abroad, notably in Africa. The primary aim was for the protection of wildlife, rather than the preservation of the spectacular landscapes for collective enjoyment. But there were essential differences in the American and African perspectives of the national park that the colonial administration failed to comprehend. Haber (1986: 343) illustrates that :

- *wildlife depends much more on a balanced habitat or ecosystem complex than do scenic features; and*
- *the areas envisaged for national parks were, for a large part, inhabited or at least used by indigenous people who derived their livelihood from them; they would not, and could not, be just driven away, as was done with the Indians in many American parks.*

When the national parks were finally established in Africa, conservation was the main priority compared to the needs of the local communities whose traditional means of support had been affected. This contributed to the often hostile attitude of the communities toward their national parks.

In Peninsular Malaysia early efforts of conservation were mainly related to the protection of wildlife, especially birds and mammals. In the early 1900s, more than 80% of the land surface in Peninsular Malaysia was covered with forests and wildlife was extensive. Like other British colonies, the earliest protected areas in Peninsular Malaysia were game reserves. Hunting was a favourite sport among colonials and the first protected areas in the British Empire, those of East Africa and Sudan, were established in the late nineteenth century to control hunting (Gillet, 1908 cited in Aiken, 1994: 50). Similarly, in

1903 the first protected area in Malaya, the Chior Game Reserve was established to protect a herd of seladang (gaur).

As development progressed, the demand for land increases and forests were being cleared, causing many animals such as elephant, rhinoceros, seladang and tapir losing their ancestral home grounds. The first legislation which prohibited the killing of certain species of birds was introduced in 1894 and was further extended in 1904 to include other specified wild animals (Leong, Davison, Kiew, Kishokumar, Lee & Lim, 1990).

Some of the factors which led to the decline of wildlife population (Musa, 1983: 106) were :

- severe loss of wildlife habitats due to development of plantations, mainly rubber estates;
- destruction of wildlife deemed as pests, e.g. elephants;
- trade of wildlife products; and
- severe hunting/poaching pressures.

These concerns accentuate the growing awareness of the public on conservation issues and that 'something ought to be done' on a national scheme as the fate of many of the wildlife were at stake (Burkhill, 1971: 207). The conflicts between wildlife, plantation owners and the local population eventually led to the formation of The Wildlife Commission of Malaya in 1930, under the Chairmanship of T.R. Hubback. The Commission's report took three years to complete, compiled into three volumes, covering the whole of Malaya and Singapore emphasised undisturbed permanence as a fundamental factor, recommending the establishment of national parks with a guaranteed permanency (Musa, 1983). This is because many of the earlier forest reserves have been revoked and the report proposed that parks should be maintained and utilised for the enjoyment of the present and future generation.

A major recommendation of the Commission was the creation of the Gunung Tahan National Park. The Commission was not in favour of a system of wild life protection in the form of Forest Reserves under the Forestry Department due to failures of such system in Burma and considering the background of Malayan conditions, the Commission rejected such an option. Quoting the Commission's Report that it :

...cannot consider that the Forest Reserves should be looked upon, in any way, as ultimate sanctuaries, breeding grounds or refuges of wild life in anything but its smallest forms. The commercial exploitation of the forest will destroy all the larger forms of wild life. I would oppose... the idea that forest reserves in Malaya can be looked upon as substitutes for properly constituted game reserves... entirely..., and I am quite sure that if such steps were taken the death-knell to efficient wild life preservation in Malaya would be stuck. ...It is hoped that future generations will not be to point to the first half of the Twentieth century as the crucial years which were responsible for the passing of the Larger Fauna in Malaya.

(Burkhill, 1971: 208)

The success of the Commission led to the establishment of a national park in 1938 which was known as the King George V Park in commemoration of the Silver Jubilee of the King's reign. It was later changed to Taman Negara in 1960 after Malaysia's independence from Britain in 1957. Today, after almost 6 decades of its creation, one must express admiration and respect on the Commission's vision, wisdom and courage in establishing a national park that covers an extensive area, spreading through three states of Peninsular Malaysia. Although the main notion for the creation of the Park was the protection and preservation of the larger Malayan wildlife species, the important implication is the preservation of the habitat, which includes the vegetation, the rivers and streams, and the landscapes (Burkhill, 1971).

Presently, most of Malaysia's remaining forests are reserved forests or permanent forest estate (PFE), where 3.65 million hectares are for protective

functions, recreation and amenity forests, while the remaining 9.09 million hectares is for timber production (Lim, 1991). Besides PFE, the state forests or stateland (6.45 million hectares) may still be forested, however most of it will be converted to agriculture or other uses. Apart from these forests, there are also forests in the form of protected areas, some of which also serve either wholly or partly as reserved forests. There are more than twenty protected areas in Peninsular Malaysia, most of them were established during the colonial period, with a total land area of 829,232 hectares, representing 6.3% of Peninsular Malaysia total land area (Table 3.3). These protected areas can either be in the form of a bird sanctuary, game reserve, national park, nature park, wildlife reserve or wildlife sanctuary.

In the late 1960s and early 1970s, the economic development of Malaysia which was then based mainly on the exploitation of its natural resources was exerting heavy pressures on the environment, especially the wildlife. Some of the wildlife reserves such as the Chior Wildlife Reserve had been encroached upon by various development schemes while others had been logged (Leong *et. al.*, 1990). Moreover, other wildlife reserves, e.g. the Grik Wildlife Reserve in Perak was not properly gazetted and therefore did not have any legal protection. Concern over the depletion of natural resources and environmental deterioration were commonly expressed in the public media.

These environmental problems were consequently addressed in the Third Malaysia Plan (TMP) (1975-80), where the government's policy on environment was expressed for the first time. In the TMP, a list of the conservation areas in Peninsular Malaysia was provided together with the new areas proposed for conservation. A second national park, the Endau-Rompin National Park in the southern part of Peninsular Malaysia was proposed in this plan, which was to be constituted from three existing wildlife reserves. However, the plan faces

Table 3.3 Protected Areas in Peninsular Malaysia, 1903-92

Period/Name	State	Date Established	Area (ha)
<i>Colonial Period (until 1957)</i>			
• Chior GR†	Perak	1903	4,330
• Bukit Nanas WS†	Selangor	1906	9
• Bukit Kutu WR†	Selangor	1922	1,943
• Fraser's Hill BS†	Selangor	1922	2,979
• Kuala Selangor WR	Selangor	1922	44
• Kerau WR	Pahang	1923	53,095
• Kuala Lumpur Golf Course BS	Selangor	1923	403
• Serting GR*	Negeri Sembilan	1923	27,576
• Gunung Tahan GR ¹	Pahang	1925	143,345
• Sungai Lui GR*	Pahang	1925	17,200
• Port Dickson Islands BS	Negeri Sembilan	1926	0.5
• Sungkai WR	Perak	1928	2,428
• Bukit Sungai Puteh WR†	Selangor	1932	40
• Endau-Kluang WR†	Johor	1933	101,174
• Endau-Kota Tinggi (West) WR†	Johor	1933	61,959
• Endau-Kota Tinggi (East) WR†	Johor	1933	7,413
• Klang Gates WR†	Selangor	1936	130
• Segamat WS	Johor	1937	31,080
• Taman Negara NP	Pahang/Kelantan/ Trengganu	1938-9	434,351
• Batu Gajah BS	Perak	1952	4.5
• Pahang Tua BS	Pahang	1954	1,336
• Pulau Lima BS	Johor	1954	5
• Templer Park	Selangor	1956	1,011
<i>National Period (1957 - to date)</i>			
• Cameron Highlands WS†	Pahang	1962	64,953
• Sungai Dusun WR	Selangor	1964	4,330
• Pulau Tioman WR	Pahang	1972	7,160
• Kuala Selangor NaP	Selangor	1989	259
• Endau-Rompin Park	Johor	1992	48,795

	c. 1957: 703,735	c. 1957: 5.3
Total Area Protected (ha)²		% of Total Land-area
	c. 1992: 829,232	c. 1992: 6.3

Source : Aitken, 1994: 50

Legends :

BS = Bird sanctuary; GR = Game reserve; NP = National park; NaP = Nature park;
WR = Wildlife reserve; WS = Wildlife sanctuary;

* rescinded; † also wholly or partly a forest reserve;

¹ subsequently incorporated in Taman Negara; ² excludes Virgin Jungle Reserves

difficulty when the Pahang state government in 1986 issued logging licences which included parts of the proposed park.

The resulting controversy highlights the problems of establishing national parks in Peninsular Malaysia. National parks are under the jurisdiction of the federal government while under the Malaysian constitution the various states have jurisdiction over land and forests. The state governments are often reluctant to have national parks since the state land will be under federal control.

The *Protection of Wild Life Act* of 1972, the *National Parks Act* of 1980, and the *Fisheries Act* of 1985, are provided for the creation of protected areas (Aiken, 1994) (Appendix G). The *Protection of Wild Life Act* of 1972 makes provision for the establishment, alteration, and rescission, of 'wildlife reserves' and 'wild-life sanctuaries' for the protection of numerous animals and bird species with the responsibility of management lies in the federal government. The *National Parks Act* of 1980 provides a legislative framework for the establishment of national parks in the Peninsular Malaysia only, it does not apply to Sabah or Sarawak. The *Fisheries Act* of 1985 makes provision for the establishment of marine parks and marine reserves.

Although the *National Parks Act* (1980) was amended in 1983 in favour of the state governments, giving them better control over national parks, until today there have not been any new national parks gazetted under this Act. This unwillingness is mainly due to the loss of earnings through logging concessions, an important source of revenue for financing the state's expenditures. Moreover, the federal government has been reluctant to invoke certain of its constitutional powers in order to acquire state land for federal purposes and there is a high possibility that Taman Negara will be the only national park in Peninsular Malaysia (Aiken, 1994).

Besides Peninsular Malaysia, both the states of Sabah and Sarawak which constitute East Malaysia have different administrative structures related to protected areas (Appendix G). This is due to the differences in historical development and the constitution of the three different regions. Presently there is no integration in the planning and administration of protected areas in these three regions, although there have been views that more consideration should be given on this aspect. The administration of protected areas in Sabah will be examined further in Chapter Six.

In the late 1980s Sarawak was targeted by the anti-tropical hardwood timber campaign, which has influence in North America and some of the European countries. The main reason was the effect of forest exploitation on the livelihood of the nomadic forest dwellers especially the Penans which consequently led to the state government's decision in establishing more national parks in the vicinity of the Penan settlements (Leong *et. al.*, 1990). The Penans living in and around these national parks are allowed to hunt and gather forest products for domestic use utilising customary methods.

The primary aim of national parks in Malaysia is for the preservation of the natural environment, but provision is also made for public recreation, educational activities and research work. Tourism is promoted since it generate employment for the local communities, stimulate the local economies and provide income for the management of the national park. As the Department of Wildlife and National Parks (DWNP) (1987) emphasised, it is not proper for the tropical rain forest heritage to be isolated and left unused, it should be experienced and enjoyed by people, for its value to be realised in a practical way. The Department also emphasised that tourism encourages the conservation of the park's resources while generating income.

3.5 CONFLICTING OBJECTIVES OF NATIONAL PARKS

The increase in leisure time, income, desire for outdoor recreation, educational experience and a more urbanised society have greatly increased tourism and the growth of visitors in national parks. Many national parks are now obliged to receive increasing number of visitors, exceeding the capacity of their resources. Furthermore, they have to cope with other problems such as threats to the preservation of wildlife and fragile vegetation, landscape and habitat change, erosion, socio-economic problems related to the uses of park lands and administrative problems of inadequate manpower and funding (Manning, 1979; Murphy, 1985).

Conservationists and those advocating the use of natural resources in national parks are often in conflict, normally due to the difference of interests, values and concerns of one group relative to the other (Sewell, 1974; Sax, 1980; Murphy, 1985; Nelson, 1993; Woodley, 1993). The pro-development group often feels that such development will benefit all, usually measured in terms of income and employment generated. While the conservationists believe that conservation interests must come first, and that tourism, especially when they involve substantial infrastructures and facilities associated with commercial recreation are not compatible with the primary objective of conservation in national parks.

Aldo Leopold, one of America's pioneering conservationists predicted that the greatest threat to conservation of natural areas would not be from grazing, mining, timbering or other economic exploitation but by visitors wanting to reap the aesthetic, experiential and recreational benefits of the park (Manning, 1979). Leopold (1949, cited in Manning, 1979: 13) describes that :

...all conservation of wilderness is self-defeating, for to cherish we must see and fondle, and when enough have seen and fondled, there is no wilderness left to cherish.

To a certain extent, Leopold's prediction has been accurate. Recreation and tourism in national parks is one of the most paradoxical issue, because the existence of the parks have strongly been influenced by the support and political influence of the tourism industry. On the other hand the adverse impacts of tourism is affecting the sustainability of parks.

However, educating visitors on the various environmental impacts they are capable of producing is one of the most effective management option in reducing conflicts in protected areas (O'Loughlin, 1988 cited in Buckley & Pannell, 1990: 29). Most visitors are not aware of these impacts and they often react positively to the various information designed to modify their behaviour. The education component will be examined further in the next chapter.

3.6 THE CASE OF DEVELOPED COUNTRIES

In the past, activities in national parks are usually those that have direct communication with nature such as hiking, swimming, canoeing, nature photography or wildlife viewing. However, the present expectation of some visitors are much higher, golfing and downhill skiing, enhanced by the spectacular landscape are being offered at some national parks, having adverse effects on the ecosystem. Protected areas are suitable only for low impact recreation, it is thus inappropriate for tourist developments in park and reserve to include facilities such as large hotels, tennis courts and golf courses (Buckley & Pannell, 1990).

Clarifying the actual meaning of the people's enjoyment of nature, one of the twin mandates of national parks may help in understanding the present day conflicts. As Woodley (1993) emphasised, in the confusion of goals and priorities, the ecosystem has been utilised as the backdrop rather than the main reason for visiting national parks. Some visitors expect material conveniences

and physical comfort such as resort like accommodations and other modern facilities. Sax (1980) further stressed that the national parks cannot offer everything to everyone and should offer experiences that differentiate them from conventional facility-oriented tourism. It should encourage individual contact with nature and experiences which will renew the human spirit and values.

Park management in developed countries has evolved; previously issues were more related to situations such as the prevention of fire, illegal hunting or building of trails and other facilities. Today, with the increasing number of visitors, their responsibilities have expanded; national parks are required to fulfil a multitude of functions and in certain situations, some of these functions are incompatible. Such functions include :

- to cater for the wide range of visitors activities such as trekking, bird and wildlife watching, nature study, photography, biking, white water rafting and ski gliding;
- to protect the wildlife and vegetation;
- to maintain the ecosystem and ecological process;
- to preserve area of wilderness; and to be
- responsible for the social and economic well-being of the surrounding residents.

In developed countries such as the United States, apart from the change in the tourist preferences, park management is very much being influenced by the number of visitors (Sax, 1980). The 1916 United States National Parks Act emphasise preserving the resources while simultaneously utilising them, was a 'functional mandate' during the earlier years, due to the small number of visitors. Their impacts on the resources was very much limited despite the comforts they provided for themselves. But presently, with millions of visitors, accompanied by the expanded tourism infrastructures and facilities, there is increasing difficulty in balancing the dual objectives of the parks.

In the Rocky Mountain National Parks, most conflict occurs in the valley bottom, the critical habitat for wildlife species, where park facilities, hotels and highways are located (Woodley, 1993). Other examples, include the development and commercialisation of river rafting on the Colorado River in the Grand Canyon National Park. There were strong criticism due to the excessive noise being generated and resulted in the United States Park Service proposing a ban on all motor-assisted craft in 1985 (Murphy, 1985).

Most parks face the difficulty of protecting the natural environment while accommodating the high number of visitors and satisfying their various needs. The wide range of tourist activities themselves are bound to create conflicts. Reconciling the numerous and conflicting demands placed on the park resources is a difficult task.

A survey undertaken by the US Department of Interior in 1980 reported a total of 4,345 threats in all units of the national park system. The top three threats were aesthetic degradation, air pollution, and physical removal of resources, and there were severe problems were related to external threats. In an effort to reduce some of the threats or conflicts, certain parks are already relocating their supporting facilities in the highly developed zones. Such decisions have been taken by Kootenay National Park by shifting its service facilities outside the park and in Yosemite by reducing the size of its village (Binneweis, 1984 in Murphy, 1985).

In Canada, the Banff National Park, the nation's first national park, has attracted a very high number of visitors which consequently have resulted in the clearing of forest and vegetation and the disturbance of wildlife habitat (Nelson, 1993). Other examples include that of Prince Albert National Park, where in 1991, thousands of litres of untreated sewage was released into Waskasieu Lake, causing great damage to the ecosystem (Woodley, 1993).

The high growth rate of tourism in Australia is being reflected by the deterioration of the physical environment. Tourist destinations such as the Great Barrier Reef, Kakadu National Park, Uluru National Park, Tasmanian Wilderness Park and the Australian Alps are showing the initial signs of direct visitor impacts, such as trampling and the increasing changes in the habitat and landscape through the construction of tourist facilities (Hall, 1991).

In many developed countries, there are numerous adverse effects of tourism in national parks, although conservation laws and policies meant to guide careful tourism development have existed long ago. Among the reasons are: there is still a lack of knowledge and understanding on such land-use; the effects and changes they have on the environment; and the multi-sectoral nature of tourism, with a variety of 'stakeholders' with different interests who are responsible for the planning and management of national parks (Sax, 1980; Murphy, 1985).

With respect to Canada, Nelson (1993) stressed that although The Canadian National Park Service has stern protection policy associated with tourism, often this policy is not shared by others, including certain people within the agency itself, whose priority is on tourism growth and income. The promotion of intensive recreational activities, capable of attracting very high number of visitors have resulted in a succession of land-use changes which have progressively altered the landscape over the last few decades. This tension will likely increase in the future as the cumulative effects of development places more pressure on the physical environment.

There is therefore a need for better planning and management, and an overall consensus on the appropriate form of tourism, sensitive to the resource base of the national park. Additionally, besides understanding the ecological impacts, there is also a need to accept or acknowledge these impacts and value it equally with the economic and social gains of tourism.

3.7 THE CASE OF DEVELOPING COUNTRIES

Many developing countries have a comparative advantage in terms of unspoiled natural environments, outstanding scenic attractions and the opportunity of viewing wildlife and vegetation in their original habitat. Tourism in protected areas is thus an attractive alternative due to the considerable cost of protection and the high opportunity cost of not developing it. Moreover, for countries constrained by the scarcity of resources, economic growth and modernisation are dependent on tourism development.

The expanding demand for more pristine, natural and educational experiences, have led to increasing number of visitors to these protected areas. In an effort to maximise the financial benefits of nature-based tourism in protected areas, care should be taken to avoid inappropriate developments similar to that of a large-scale resort-based tourism since protected areas are intended for conservation and suitable for low-impact wilderness recreation (Buckley & Pannell, 1990; Woodley, 1993). Although artificial recreational experiences are capable of generating higher number of visitors, they are also capable of diminishing the park's natural values, eventually leading to conventional tourism and overlooking the park's conservation objective.

Large hotels or golf courses designed to attract more visitors are being proposed in certain national parks. The development of a golf course in the Kao Yai national park in Thailand, and a hotel and other tourist facilities around Costa Rica's Manuel Antonio National Park have changed animal behaviour and eliminated certain species completely (Andersen, 1993). In the case of Galapagos, Kenchington (1989) describes the 'open-entry competition' initiated by the Government in the tourist industry may eventually decrease the economic benefits of tourism to Ecuador. The price competition will ultimately shift the economic surplus from Ecuador to foreign tourists, reduction in the tourist quality of experience and greater environmental degradation in Galapagos. The

Table 3.4 Potential Environmental Effects of Tourism in Protected Areas

Factor Involved	Impact on Natural Quality	Comments
Overcrowding	environmental stress, animals show changes in behaviour	irritation, reduction in quality, need for carrying-capacity limits or better regulation
Overdevelopment	development of rural slums, excessive manmade structures	unsightly urban-like development
Recreation : • powerboats • fishing • foot safaris	disturbance to wildlife none disturbance of wildlife	vulnerability during nesting seasons, noise pollution competition with natural predators overuse and trail erosion
Pollution : • noise (radios, etc.) • litter • vandalism destruction	disturbance of natural sounds impairment of natural scene, habituation of wildlife to garbage mutilation and facility damage	irritation to wildlife and other visitors aesthetic and health hazard removal of natural features
Feeding of wildlife	behavioural changes danger to tourists	removal of habituated animals
Vehicles : • speeding • off-road driving	wildlife mortality soil and vegetation damage	ecological changes, dust disturbance of wildlife
Miscellaneous : • souvenir collection • firewood • roads and excavations • power lines • artificial waterholes and salt provision • introduction of exotic plants and animals	removal of natural attractions, disruptions of natural processes small wildlife mortality habitat destruction habitat loss, drainage destruction of vegetation unnatural wildlife concentrations, vegetation damaged competition with wild species	shells, coral, horns, trophies, rare plants interference with natural energy flow aesthetic scars aesthetic impacts replacement of soil required public confusion

Source : WTO/UNEP, 1992: 14

fundamental challenge is therefore to determine the true meaning of national parks, their purposes and the appropriate tourism development.

Table 3.4 illustrates the environmental impacts of tourism development in protected areas. These impacts demonstrate that tourism in national parks, similar to any other industries, is capable of producing the full range of ecosystem stresses (Kenchington, 1989; McNeely & Thorsell, 1989; Nelson, 1993; Woodley, 1993). Trekking activities in the Annapurna region in Nepal has significantly upset the ecological balance of the ecosystem (Gurung & Coursey, 1994). Rhododendron forests have sharply been reduced due to the increasing demand for fuelwood and for the construction of lodges to cater for the needs of tourists. Deforestation also often results in erosion, further destabilising the hill ecosystem.

While in the Galapagos Islands, the introduction of non-native species is one major class of environmental stress and many have been introduced into national parks by tourists. Although precautions have been taken, more than 100 non-native species have been introduced in the last 20 years (Woodley, 1993).

The new visitor lodges in Amboseli National Park in Kenya have been built on the only permanent water source in the whole area, thus threatening survival of the wildlife due to site destruction and sewage pollution (Haber, 1986). Henry (1982) discussed the conflict between the nature-based tourist and the wildlife they cherish in Amboseli. By measuring the length of time visitor vehicles were stationed, he observed that six (lions, cheetah, elephants, rhino, giraffe and buffalo) of the 56 species of large mammals were responsible for 80% of the total stationary time, interfering with predators behaviour in the game park.

Similarly, in Tanzania's Serengeti National Park, there were instances of hyenas using the presence of stationary minibuses to locate their prey (Edington & Edington, 1986). In these cases, tourists utilisation of the national parks are dependent on their own selective viewing desires rather than a more balance approach which is more desirable for the wildlife.

3.8 TOURISM-CONSERVATION DILEMMA

Tourism support for protected areas can be grouped into two broad categories: economic and political. In developing countries such as Kenya, Tanzania, Ecuador, Costa Rica and Nepal, the national parks are vital destinations for international tourists, contributing significantly to the local economies and the overall economic well being of the nation. In certain outstanding destinations such as Ecuador's Galapagos Island, the value of the tourist experience is generally high, visitors therefore resemble pilgrims rather than tourists (Kenchington, 1989). While in many countries of Asia and South America, nature-based tourism has primarily been a national aspect, where only recently foreign tourists have become an influential segment of the market (WTO/UNEP, 1992).

The economic contribution of tourism in national parks in developing countries is substantial, especially in the presence of unique natural attractions. Tourism is one of the largest foreign exchange earner in countries such as Kenya and Costa Rica, where the tourism receipts in 1994 for the former was US\$421 million and the latter was US\$626 million (WTO, 1996b). Ecuador, notably the Galapagos National Park earned tourism revenue of US\$252 million in 1994 (WTO, 1996b). The official foreign exchange receipts from tourism in Nepal have increased from US\$78,000 in 1961-62 (Nepal Rastra Bank, 1989 in Wells, 1994: 321) to US\$172 million in 1994 (WTO, 1996b). However, in Nepal, typical of many developing countries, more than two-thirds of the total tourist

expenditure in protected areas leaves the economy through the importation of goods and services, mainly from India. Furthermore, even though there is a high willingness to spend among tourists in many of the national parks, the extent to which the locals are able to capture this financial benefit relies very much on the organisation of the tourist industry (Boo, 1990).

Economic models have demonstrated that the monetary value of animals used for viewing purposes in protected areas are worth far more alive than dead. Threshner (1981) estimated that an adult male lion in Kenya's Amboseli National Park is capable of generating US\$515,000 in foreign exchange over its life time. Similarly, Western and Henry (1979) have estimated each lion in Amboseli is worth US\$27,000 per year in tourism revenues while the elephant herd is worth US\$610,000 per year.

Besides foreign exchange earnings, other economic benefits from tourism in national parks include creation of local employment, stimulation of other domestic industries, diversification of the economic base and increase in the demand of agricultural products (MacKinnon *et al.*, 1986; Boo, 1990; WTO/UNEP, 1992).

Although the financial contribution of tourism in certain national parks is substantial, there are still however many parks which have not fully exploited the present circumstances. Entrance fees, capable of contributing to the cost of park management are still relatively low in many countries. Furthermore, many countries do not practice the two-tier or multi-tier system, differentiating the fees between different categories of visitors. These parks may be operating at a loss and require additional government assistance. Moreover, the lack of funds and incentives by government will result in the park having lower allocation and to continue operating at a loss, resulting in poor management and further environmental deterioration.

Given the relatively high cost of international travel, increasing the entrance fee for foreigners will only have a negligible effect on the total number of foreign visitors to a protected area (Dixon & Sherman, 1990). It can also be used as a tool to limit visitors to the area (Aukerman, 1990; Dixon & Sherman, 1990) and parks charging higher fees has less litter and vandalism (Aukerman, 1990). There are several protected areas which are practising the two-tier or multi-tier fees, where higher user fees are associated with foreign visitors: such as Masai Mara National Reserve and Amboseli National Park in Kenya (Olindo, 1991); Galapagos National Park, Ecuador (Lindberg & Huber, 1993); and Monteverde Cloud Forest Preserve, Costa Rica (Aylward, Allen, Echeverria & Tosi, 1996).

In Rwanda, foreign visitors to the Mountain Gorilla Project are charged an entrance fee of US\$170 per day (Sherman & Dixon, 1991), considered to be the highest fee charged anywhere in the world, but demand has remained strong. Fees structure in Monteverde Cloud Forest Preserve are revised annually depending on the visitation demand, the 1995 fees structure are : less than US\$1.00 for Costa Rican students; US\$1.50 for nationals and Costa Rican residents; US\$4.00 for foreign students; US\$8.00 for foreigners (not on package tours); and US\$16.00 for foreigners on package tours (Aylward *et al.*, 1996).

At present, most protected areas in Malaysia do not practice the two-tier or multi-tier fees system with the exception of a few, such as the Sepilok Orang Utan Sanctuary and the Danum Valley Conservation Centre (DVCC), both in Sabah. The Sepilok Sanctuary has a different entry permit fee for Malaysians and foreigners. Malaysians under 18 years old pay RM0.50, while adults pay RM5 and the fee structure for foreigners is RM1 and RM10 respectively. DVCC has a multi-tier fees system, and charges differ not only on entry permits but also on transportation, accommodation, meals and forest guides/porters (Table 3.5). The increasing demand by foreign visitors to visit DVCC has prompted the

Table 3.5 Fees Structure in Danum Valley Conservation Centre, Sabah (RM)

Visitor Categories :

- A Malaysian students or junior scientists employed in projects
- B Malaysian adults, British scientists sponsored by the Royal Society, overseas children under 18 years of age, and undergraduate
- C Overseas scientists and official visitors (other than Royal Society)
- D Other foreign visitors (tourists)

Descriptions	A	B	C	D
1. Entry permit				
• Day visitors	1	2	5	10
• Residential visitors	2	10	15	25 ¹
2. Transport				
• one way trip from airport to centre or vice versa	20	20	20	30 ¹
3. Accommodation (per night per person)				
• Resthouse	12	24	36	60 ¹
• Annex	16	27	39	-
• Hostel	4	12	24	36 ¹
• Forest cabin	2	5	10	15 ¹
• Full board meals	12	17	24	36 ¹
4. Forest guide/porter				
• per day	15	15	15	30

Source : Danum Valley (1993)

Note : ¹ effective from 1995, this fees are excluded as foreign visitors (tourists) under category D are not permitted to stay overnight in the Centre. They are required to stay at the Borneo Rainforest Lodge (BRL) situated outside the conservation area (Angkangon & Marsh, 1994)

RM4 = £1.00 (approx.)

management to develop a site outside the Centre, known as Borneo Rainforest Lodge (BRL) (Angkangon & Marsh, 1994) in line with the operation and standard adopted by Tiger Tops, Nepal. The BRL charges are high, however Lindberg and Huber (1993) express that higher user fees are relatively ethical if it is able to enhance visitors' experience and the fees are used appropriately for conservation purposes.

To determine the true value of tourism in protected areas, surrogate market approaches, such as travel-cost method can be used in developing a demand curve for protected areas and thereby estimating its value (Dixon & Sherman, 1990). The rent of the site is often lost, since park entrance fees, even for international tourists are usually very much lower than the individual tourist's willingness to pay. The consumer surplus therefore looks at the difference between what an individual actually pays and the maximum amount the individual is willing to pay. The above method therefore analyse the pattern of usage and derive a demand curve to estimate the total value of consumer's surplus.

Other income for protected areas may include: user fee charged on researchers who wish to do field research in protected areas; patent rights to newly discovered species or varieties in protected areas, where the benefits from commercial applications are split between the country of origin and the individual or organisation who discovers the new application; and royalties or a certain percentage of the revenues from books, photos, or films made in protected areas (see Dixon & Sherman, 1990 for further details).

Tourism associated with national parks is able to generate political support through several mechanisms. The first is tourism as an economic activity is much preferred compared to other exploitative uses such as logging and mining. With the highly sensitive issue of conservation and where resource

management in parks is carried out under the full scrutiny of public watchdog groups, tourism is seen as the best economic alternative. In developing countries such as Malaysia, tourism in protected areas may deliver the image of the country still having many of its forest intact, an attempt to change the negative image portrayed by international NGOs on the export of tropical timber, a major threat to the conservation of the tropical rainforest. Taman Negara, the largest national park in Malaysia (434,300 hectares), has timber valued in 1971, at around USD3,000 per hectare (MacKinnon *et al.*, 1986).

Secondly, the concept of sustainable development has increased the public and political awareness as the emerging paradigm for resource management. Properly planned and managed tourism in national parks is perceived to satisfy this requirement. Moreover, the issue of environment has attracted considerable attention in many tourist generating countries. An extensive survey conducted by Angus Reid polling across Canada in 1989 reported that one in three Canadians considered the environment as the most pressing issue (Dearden, 1991).

Finally, government may increase their support in recognition of the benefits accruing to tourism enterprises and as a means for regional development. In certain areas, the support may be due to the revenue from tourism being channelled to the treasury rather than for the management and development of the protected area itself.

However, tourism can also generate financial costs for protected areas. These costs associated with the negative ecological and sociological impacts are unfortunately difficult to assess in financial terms. Tourism's negative impacts on the environment have long been recognised, and The Environmental Tourist Policy recommended by IUOTO (Predecessor of WTO) in 1971 was among the early tourism policies advocated to reduce the pressures tourism was exerting on

the environment. Among the recommendations were :

- Countries at the national level should have an inventory of natural tourist resources;
- Concept of zoning (classifying);
- Small scale development only, if feasible on sensitive or fragile environment;
- Design of new tourist developments should take into account of the environment, to ensure buildings blended with their surroundings; and
- Minimise any adverse environmental impacts.

These recommendations were supported at the United Nations Conference on the Human Environment at Stockholm in 1972. It was here the important concept of 'ecodevelopment' was formulated, a strategy which suggested that economic development should take place only if it was linked to environmental protection (Dowling, 1992). The adverse effects of development on water quality, flora and fauna, forests and other aspects of the environment have lead to the introduction of this term. The type, location, scale, intensity and other land-use changes due to development should be compatible with the environment, including the ecosystem. The 'ecodevelopment' approach was aim to rectify effects such as deforestation, loss of wildlife and erosion in many national parks in North America associated with the increasing growth of tourism.

The World Conservation Strategy (WCS) which was launched in 1981 was the contribution of the world's four leading conservation agencies - IUCN, UNEP, WWF (World Wildlife Fund) and FAO (Food and Agriculture Organisation of the United Nations). The global conservation plan emphasised that man's relationship with the biosphere will continue to deteriorate and there is an urgency for the adoption of a new environmental ethic and sustainable modes of development. This policy re-emphasised the earlier concept of

ecodevelopment linking development and the environment, and added the concept of integration between the two, enabling the earth to support humankind continuously.

Dr. Gerardo Budowski (1976), in his well quoted paper 'Tourism and Environmental Conservation: Conflict, Coexistence, or Symbiosis?' was a major influence in the conservation-tourism debate. He examines the views of the two camps, those marketing the tourist industry and those promoting the cause of conservation and the relationships between these two are especially significant when tourism is partially or wholly dependent on values derived from nature and its resources. The first relationship is when the tourism industry and conservationists are in conflict, this is when tourism have detrimental consequences on the environment. The second relationship is that of coexistence when both camps exist in isolation, each promoting their respective views, having little or no contact with each other. The third relationship is the state of symbiosis when both parties derives benefits from each other and are mutually supportive. In this situation, tourism development will conserve the natural characteristics of the area.

Budowski acknowledged the most common form of relationship however was that of conflict and challenged the two alternative camps to cooperate and compromise, striving towards a conservation-tourism integration, leading to a symbiotic relationship. At the European Heritage Landscape Conference in 1985, Adrian Phillips, the Director of the United Kingdom Countryside Commission recommended the collaboration of conservation and tourism. He emphasised the alliance between the two and suggested the rationale behind why conservation should seek the support of tourism. The three reasons are that tourism provides an economic justification for conservation, it is a means for building the support for conservation and it can bring resources to conservation since they share a common resource base (Phillips, 1985).

Gunn (1978), demonstrated appreciation of the environment could be enhanced through tourism, rather than tourism conflicting with conservation and recommended the need for an international alliance of tourism, recreation and conservation. The nature of these relationships however are not consistent and very much depends on the peculiarities of the area under consideration.

Regional and Global Environmental Concerns

There is a growing awareness that it is often not possible to detach economic development issues from those of the environment. Many forms of development deplete and degrade the environmental resources upon which they rely on, hence the possibility of undermining future economic development. Such awareness has progressively convinced many governments including the Malaysian Government to favour development styles that minimise adverse impacts on the environment for the benefit of future development. Cooperation with foreign governments either directly or indirectly is also undertaken since many of the environmental issues transcend across national boundaries. These general environmental objectives are complemented and reinforced by bilateral and multilateral commitments through agreements, resolutions or declarations, such as :

- The Manila Declaration, 1981
- The Bangkok Declaration, 1984
- The Jakarta Resolutions, 1987
- The Manila Summit Declaration, 1987
- The Langkawi Declaration, 1989
- The Kuala Lumpur Accord on Environment and Development, 1990

(Source: Sham, 1993: 72)

The World Commission on Environment and Development (WCED, 1987) document entitled *Our Common Future* or more commonly referred to as *The Brundtland Report* is a major policy document regarding the way the earth

should further be developed. It has been the most influential document, addressing environmental problems on a global perspective while promoting the concept of sustainable development. It also marks the beginning of an era where major world organisations and countries realised the need to preserve the environment not only for aesthetic purposes, but also to preserve the economic future of the next generation.

Sustainable tourism is being initiated after the concept of 'sustainable development', which is now replacing the older term of conservation, implying that development and resource protection are compatible (Gunn, 1994). Tourism's interest in sustainable development is fundamental, since it is an industry that relies on the environment, both physical and human, as its product. Moreover, the long term survival of the industry is dependent on the continuous availability and integrity of the product.

Sustainable development have been credited for providing a new outlook to development and a vision for the future. However, sustainability is not an entirely new issue, it is related to the concept of ecodevelopment. The World Conservation Strategy (IUCN, 1980) has also emphasised the need for sustainable forms of development, which also took into account the sound use of the environment, emphasising more on the ecological perspective, while WCED (1987) approach is more multi-faceted, integrating the economic, social, ecological, moral and ethical aspects. The concept of ecodevelopment probably "lost momentum partly due to the fact that the expression 'eco' did not seem to please many industrialists and politicians, who found 'sustainable development' an indicator of a much less threatening trend" (Leal Filho, 1996: 63).

However, sustainable development has been criticised for its vagueness and trying to be everything to accommodate everyone (Rees, 1990). Some view

its ambiguity and flexibility as an advantage, allowing different interpretations for different situations. In theory, sustainable development have been recognised and accepted. However, in practice, there are many barriers and constraints in implementing it.

The sustainability concept, despite its definition difficulties serves to highlight many unsustainable tourism practices. Many tourism resources such as landscapes, views, open spaces and tranquillity are non-renewable in nature (Tribe, 1995). Sustainable tourism development stress the importance of the environmental quality, the purpose and limitations of the natural environment in which past development policies have taken for granted. Development is dependent on the ecosystem as a source of essential raw materials and as a 'sink' that absorbs and recycles the waste products of economic activity (Munasinghe, 1994). However, both these functions are finite in nature and there are destinations which have been environmentally degraded by improper tourism development, diminishing their original attraction qualities and affecting the future prospect of the industry.

The Rio Summit in 1992 promoted the need to consider the environment in development decisions and highlighted many of the current international environmental problems. There were also differences in the views of different countries with regard to the conservation of the environment. Developing countries realised the importance of environmental protection but perceived the directives recommended by the developed countries as resisting or limiting their economic advancement. They feel that the developed countries through their many years of economic progress have contributed greatly to the global environmental problems but now wants to impose directives on them, thus restricting their growth. There are also some who perceived these directives as indirect strategies to curb global competition and to strengthen the economic superiority of developed countries.

3.9 IDEOLOGICAL APPROACHES TO THE ENVIRONMENT

In practice, the kind of tourism development being encouraged or allowed in an area depends substantially on the philosophy of those in power of controlling such decisions. Policies are formulated and implemented from the views of selected individuals, satisfying the interests of some at the expense of others. Although the allocation of scarce resources are linked with economists, policy guidelines and objectives are specified by the relevant governmental or other agencies which consequently govern economists' recommendations regarding this allocation (Archer, 1996).

Policy concerns involved with the Green philosophy include Dobson (1990) distinction of 'ecologism' and 'environmentalism', and O'Riordan (1981) 'ecocentrism' and 'technocentrism'. Ecologism or ecocentrism sees humans as part of the global ecosystem, control by the ecological laws and rejection of market economy-based social relations. This approach views humans as having the obligation to behave ethically for the benefit of the whole mankind, favours low impact development and adores the concept of 'small is beautiful'.

Environmentalism, or technocentrism indicate modification or adaptation, rather than alternatives to the above. Technocentricism believes man through his exploitation of the environment still has the capability to rectify the negative consequences it has on the environment. Technocentrism recognises environmental problems but relies on the progress of science, management techniques and market forces to manage and control environmental problems. O'Riordan (1981) further distinguishes the two main typologies of technocentrism, those of the 'cornucopian' and the 'accommodators'/'environmental managers' (Table 3.6).

The cornucopians believe that humans will always have the capability to solve their environmental problems and achieve unlimited growth. The

Table 3.6 Distinctions between Ecocentrist and Technocentrist approaches

ECOCENTRISM		TECHNOCENTRISM	
Modern technology and existing mainstream economic strategies seen as fundamentally flawed		Technical solutions to environmental problems can be found by appropriate application of scientific thinking	
<p>Deep ecology</p> <ul style="list-style-type: none"> • Intrinsic importance of nature to mankind • Ecological laws/bio-rights of species and unique landscapes to remain unmolested 	<p>Soft reliance soft technologies</p> <ul style="list-style-type: none"> • Emphasis on small scale, and community, and on participation as a continuing education and political function • No work/leisure distinction, only personal and communal development 	<p>Environmental managers</p> <ul style="list-style-type: none"> • Economic growth and resource exploitation can continue if legal guarantees of minimum environmental standards produced, compensation for those adversely affected exist. • Project appraisal and public consultation properly structured into policy system. 	<p>'Cornucopians'</p> <ul style="list-style-type: none"> • Faith in science providing the basis of advice pertaining to economic growth, public health and safety • Suspicion of attempts to widen participation and lengthy discussion in project appraisal and policy review. • Belief that all impediments to growth can be overcome with scientific ingenuity.
Leisure and Tourism Emphasis of Different Philosophies			
<ul style="list-style-type: none"> • Work/leisure distinction meaningless. • Promotion of activities for personal and community development, e.g. craft production, animal husbandry, etc. • Fundamental Green positions argue for reduced travel flows not simply because travel is wasteful of resources but also because it involves dislocation and unsettling of communities and community values 		<ul style="list-style-type: none"> • Impact assessment for new projects and development control of inappropriate developments in tourism projects (e.g. skiing, power boating, motor cycling, golf, etc.) • Promotion of small scale tourism/leisure provision, ecotourism, cultural and environmental interpretation, informal self-produced recreations (e.g. cycling, walking). 	<ul style="list-style-type: none"> • Market analysis and management of growth: finding techniques to balance demands (e.g. golf, farm tourism, craft production, as a solution to agricultural oversupply).

Source : Henry and Jackson, 1996, p. 20

accommodators are more cautious, they believe through careful economic and environmental management, environmental demands can be accommodated. Accommodators accept the concept of continuous economic growth through the exploitation of resources but seek to control the accompanying impacts through taxation, legal protection of basic environmental standards, and compensation for those affected by pollution or negative externalities (Henry & Jackson, 1996). Among those included in this category are middle-ranking executives, environmental scientists and liberal socialist politicians (Pepper, 1993). A significant method utilised by accommodators to mitigate impacts is the environmental impact assessment.

At the extreme end of the technocentric typology spectrum are the interventionists who are more likely to be the business and finance managers, skilled workers, self-employed workers and the right-wing politicians who have full faith in the utilisation of science and technology, market forces and managerial creativity (Pepper, 1993). There is little will for them to allow the general public to participate in the decision making process or discussion regarding their values.

If the government is involve in the decision making, it is more likely to be that of the technocentric manner of reasoning. The seriousness of the government in identifying and solving the environmental problems associated with the development of tourism also depends largely on the political ideology of the government. The more right they are on the technocentric spectrum, the more lenient they will be on problems related to the environment or vice-versa.

These distinctions are related to tourism and the sustainable approach to tourism policy and management (Henry & Jackson, 1996). Table 3.6 is the framework illustrating these approaches and their relationship with tourism practises. Identifying such distinctions will further aid in understanding the

different perspectives of sustainable tourism, the type of tourism policy adopted and the future direction of development.

3.10 SUMMARY

National parks have been established for the dual purposes of preserving the resources and making these resources available for public appreciation and enjoyment. They are the longest, most successful and well established accomplishment in the whole nature conservation field (Murphy, 1985). National park system in many countries are respected institutions established a long time ago. Presently, even with the high awareness of environmental issues and consciousness of sustainability principles, the establishment of an institution with such authority and rights would be very difficult.

For many nations, including Malaysia, the cost of protecting such areas is high and tourism is often seen as an attractive generator of income compatible with its resource base. Political support for national parks are often related to them being accessible to the public, not set aside as 'islands' and the generation of many socio-economic benefits. If tourism or any other alternative economic uses are not allowed in national parks, many of them would not have existed today.

However, the lack of proper planning and management, accompanied by increase visitation, have disturbed the ecological balances of many national parks. The existing literature on the conflicts or threats presently experienced by national parks indicate a clear need to reassess the purpose and position of tourism, and re-examination of present management practices. Protecting the resource base of national parks does not only contribute to the global conservation system but also is essential for the sustainability of the tourism industry. Although tourism in Malaysian national parks is relatively a recent

phenomenon compared to other established national parks, negative environmental impacts from tourism such as soil erosion, litter and improper sewage disposal are already being observed in Taman Negara, the oldest national park in Peninsular Malaysia (Yong, 1992).

Consequently, despite tourism exploitation in national parks, there is a need to treat tourism pressures sensitively, otherwise the 'goose that laid the golden egg' will soon be lost to urbanisation (Forster, 1973). Conservationists should compromise a tolerable loss in ecological integrity caused by tourism against the many benefits and security provided by protected areas. As Gilbert (1976) emphasised, it must never be forgotten that conservation has not only natural and economic limits; it is also dependent on the will of any generation, community, or government in providing the financial and management incentives, and will likely remain so.

With proper planning and management, tourism can help in the protection of the resource base and at the same time making a positive contribution to economic development. It is therefore essential that planners and decision makers accept that the sustainability of tourism in ecologically fragile areas depends not only on their ability to identify and develop economic opportunities, but also on their ability to conserve the natural and cultural assets of the areas.

Chapter Four

PLANNING AND MANAGEMENT OF TOURISM IN NATIONAL PARKS

4.1 BACKGROUND

This chapter will examine the planning and management of tourism in national parks, and is divided into two parts. The first part briefly reviews the evolution of tourism planning, from the initial emphasis on physical site planning to the recent integration of tourism into overall socio-economic development. This is followed by viewing the specific issues of tourism planning in national parks. The second part will present a conceptual framework of tourism management in national parks. It examines how visitor recreational opportunities are influenced by three main factors: visitor management, service management and resource management.

Planning and management of tourism in national parks are crucial due to the fragile nature of the resource base. Many of the impacts from tourism are not external to the industry, as in the case of the manufacturing sector, but internal and have a direct influence on the resource base itself. Furthermore, Brugger (1984, cited in Butler, 1994: 35) states that 'the market for tourism is not in a position to guarantee a path of development which in the long run is in its own interest'. Nor is it in a position to assure the optimum of development, due to the highly fragmented and extremely competitive nature of the tourism industry (Butler, 1994).

Often, most of the negative impacts associated with tourism are not only due to the increasing number of visitors but by lack of plans, policies and

management action to prepare for the growth of visitors. Gunn (1994a) emphasised that tourism *per se* cannot be blamed for environmental deterioration caused by unwise political and private decisions through inappropriate development, which is not compatible with the natural and cultural resources of the area.

4.2 TOURISM PLANNING

Numerous models and theories of tourism planning are available in the literature. World Tourism Organization (WTO) (1983) have recognised over 1600 tourism plans ranging from international level to sectoral plans with diverse objectives, goals and success in their implementation. The Organisation for Economic Co-operation and Development (OECD) (1974) has recognised three phases of tourism planning since the Second World War, mostly related to the number of visitors. Others such as Lawson and Baud-Bovy (1977), Murphy (1985), Getz (1987, 1991) and Gunn (1994a) thereafter proposed additional approaches, supplementing the initial goals of tourism planning.

The OECD (1974) illustrated that initially the emphasis on tourism was on facilitating travel which was then followed by the domination of tourism promotion. Planning during the late 1950s were generally associated with physical planning, resource use was basically exploitation for the course of development and not much consideration was given to the long-term implications of such development (Baud-Bovy, 1982). Tourism was then seen as a harmless activity, that only convey benefits to their destinations and is distinguished as one that does not lead to the destruction of the natural resources (Zierer, 1952). This was the era where the environment was seen as a resource to 'enjoy and see' and to be used freely (Hudman, 1991).

Early interpretation of tourism planning were concerned with the development of facilities and the physical lay-out of destination areas. Gunn (1979) was among the first to define tourism planning in this manner, where he described tourism planning as a tool in facilitating destination area development, a model in evaluating the requirements of a region, in view of satisfying visitors, resource conservation, and delivering financial reward to the owners of tourism enterprises.

The emphasis of tourism development was for economic growth and was perceived by many as the catalyst to economic prosperity. This view is related to Jafari (1990) 'Advocacy Platform', the first of the four platforms, representing the transformation process in the thinking of tourism. The 'Advocacy Platform' is where the interests of both, public and private sectors are focused on tourism's importance to the economy (Jafari, 1990). Those pursuing this approach often stress the importance of visitor numbers and the financial benefits of tourism. This approach has attracted much criticism, pressing government and the industry to review their priorities, adopting a long term stand with more longitudinal and comprehensive outlook of the industry (Getz, 1987; Inskip, 1991).

Dissatisfaction with the trend of tourism development led to Jafari (1990) identifying a 'Cautionary Platform', the second platform in the transformation process. The validity of benefits claimed by tourism are scrutinised and increase attention is given to issues such as the commoditisation of culture, deterioration of the environment and other negative effects on the host society. This shifts the traditional emphasis of planning, away from promotion, physical planning and site-orientation.

Bradden (1982, cited in Pearce, 1989: 246) observes a close link between tourism planning and development planning and indicates that tourism is a

social, economic and environmental activity. He stress that 'tourism planning should be integrated with all socio-economic activities and at all levels of involvement'. This view reflects a concern beyond simply physical and economic planning, encouraging a more comprehensive outlook, integrated into the wider socio-economic and environmental perspective.

Murphy (1980, 1983, 1985) further supports this approach, bringing the concept of planning into a more regional and systems approach. Part of the systems approach includes a management concept, recognising the influence of visitor and resident perceptions on the overall travel experience. Murphy (1985) associates tourism planning as part of a destination community's ecosystem. This ecological approach relates tourism to the ecosystem, where :

... it involves destination areas, where visitors interact with local living (hosts, services) and non-living parts (landscape, sunshine) to experience (consume) a tourism product. There is an interdependence in the system because neither can succeed without the other. (Murphy, 1985: 166-167)

This ecological approach emphasised the role of community in tourism development, incorporating their views and is sensitive to the 'community carrying capacity'. Although the emphasis of tourism is still on development, priority is given to the socio-economic benefits of the destination. Among the objectives of tourism planning are to maximise local benefits and minimise negative impacts, thus promoting development which would increase the social, economic and environmental benefits.

Murphy's approach is related to Jafari's (1990) third platform, the 'Adaptancy Platform' where new strategies of tourism development have been developed to overcome tourism's negative impacts. However, Jafari (1990) feels that this is only a partial remedy and strategies have not been fully developed to

accommodate the mass tourism generated globally. Similarly, Getz (1987: 4) supports Murphy's view and further defines tourism planning as 'a process based on research and evaluations, which seek to optimise the potential contribution of tourism to human welfare and environmental quality'. His version emphasise the systematic and comprehensive link between research in tourism impact and planning operation at all levels. Like Murphy (1985), he recommends the integration of tourism planning on a community's economy and environment.

Gunn (1988) illustrates that tourism planning has evolved from physical planning to a more comprehensive evaluation of planning which is continuous and integrated. Gunn (1994a: 101) further elaborates that :

...in order to achieve the goal of sustainable development, tourism planning must be comprehensive enough not to undermine ecological and social systems. This requires that the existing piece-by-piece tourism expansion be replaced by larger scale cooperation and integration and much greater awareness of tourism's dependency upon natural and cultural resources.

Tourism planning therefore has evolved from the earlier physical site planning and emphasis on development to include concepts such as 'community', 'integration' and recently, the paradigm of sustainable tourism development. Inskip (1991: xviii) maintains :

...sustainable development approach can be applied to any scale of tourism development ... and that sustainability depends on how well the planning is formulated relative to the specific characteristics of an area's environment, economy, and society and on the effectiveness of plan implementation and continuous management of tourism.

Similarly, Globe'90 (1990: 3) interprets sustainable tourism development as :

...leading to management of all resources in such a way that we can fulfil economic, social and aesthetic needs while maintaining cultural identity, essential ecological process, biological diversity and life support systems.

This interpretation signifies the complicated nature of tourism planning. It acknowledges tourism as a tool in development, but also recognises the negative impacts of unplanned tourism and therefore stress the overall balance between demand and supply within the framework of maintaining social and environmental objectives. The concept of sustainable tourism development is partly related to Jafari's (1990) fourth and final platform, 'The Knowledge-Based Platform'. He stressed this platform is based on scientific foundation and the primary goal is the formulation of a scientific body of knowledge on tourism, but which simultaneously maintains bridges with other platforms and is intended to contribute to a holistic study of tourism, not just limited to different forms and consequences.

The various approaches toward tourism planning are not mutually exclusive and neither is it a progressive continuum. In many developing countries, tourism planning has become more widely accepted. However, the main priority is often on economic development, emphasising promotional activity and providing incentives for private sector development. Policies intended to protect the cultural and environmental resources remain secondary. Often 'community involvement' is considered as public relations, only intended to persuade inhabitants of tourism benefits and the need of hospitality, while real opportunities to participate in tourism development are usually limited (Getz, 1987). Furthermore, tourism research in developing countries is often based on a single discipline, normally economics, a lack in the multi-disciplinary approach

required for a comprehensive understanding of tourism development (Jenkins, 1991).

4.3 PLANNING FOR TOURISM IN NATIONAL PARKS

Good planning is central to good protected area management, but it is merely a management tool and not an end in itself. It is an on-going process involving the formulation, submission and approval of management objectives, how these are to be attained and standards against which to measure their achievement.

(MacKinnon *et al.*, 1986: 185)

MacKinnon *et al.* (1986) and WTO/UNEP (1992), utilising IUCN's standardised approach which has been adopted by many tropical countries described the main components of national park management planning as :

- *Resource management and protection*
Concentrates on issues associated with the protection of the biological and physical resources of the area.
- *Human use*
Focuses on all aspects of use by people including traditional use, recreation, and tourism, and including the facilities and developments necessary for these purposes.
- *Research and monitoring*
The management of the national park resources often involves an understanding of the ecological processes, which requires the development of research programmes to meet these needs. Similarly, monitoring is required to detect problems and measure progress

according to the management objectives of the area.

- *Administration*

Focuses on the operational, manpower, and financial resources required for the management of the national park.

Planning for tourism in a national park is a subset of the overall park management planning process. Clark (1994) stressed that in planning for tourism in protected areas, there are two concerns that need to be clarified. The first is to be clear and explicit relating to why tourism development is being sought, and secondly, is to establish how much change will be tolerated for the sake of tourism. He suggested that :

...at a macro level, goals and principles of limiting change should be part of National Policy Guidelines for Protected Areas or, perhaps a Nature Tourism Masterplan. At a park level, National Park Management Plans should contain specific goals and limits of change. (Clark, 1994: 14)

The diverse nature of the tourism industry makes it very difficult to rely on the industry itself to set goals and limits. Moreover, the overall circumstances of the tourism in protected areas, its consequences and impacts are still not fully understood. However, stakeholders from the tourism industry should always be involved at all levels of planning and decision-making (Clark, 1994).

McNeely and Thorsell (1989: 31) stressed that the guiding principle for tourism development in national parks is to manage the natural and human resources in such a way that it maximises visitor enjoyment while minimising the negative impacts associated with it. They recommended several general principles in the planning of tourism in national parks :

- Planning for tourism development must be integrated with the general land use plan, both locally and regionally due to its interaction with

other land use activities. It should be developed in close co-ordination with the regional and national tourist authority. The preparation of a National Conservation Strategy (NCS) which involves government agencies, non-governmental organisations, private interests, and the community will ensure tourism objectives are integrated with other relevant sectors, besides the analysis of natural resource issues and assessment of priority actions.

- Determine the level of visitor use an area can accommodate with high levels of satisfaction for visitors and few negative impacts on the environment and ensure that this level is not exceeded. Carrying capacity estimates are determined by many factors; in the end, they depend on administrative decisions about approximate sustainable levels of use. The major factors in estimating carrying capacity are (a) environmental, (b) social, and (c) managerial. Environmental and social factors are somewhat subjective, and carrying capacity can be increased through managerial factors. These include management measures such as designing viewing tracks, trails, etc. to distribute use more appropriately, reducing conflict between competing uses, providing adequate information and interpretation services and increasing durability of heavily used resources.
- Require 'environmental impact assessments' (EIA) for all tourism development projects or programs. EIA is often seen by developers as another bureaucratic impediment being placed in the path of progress, but well-done EIA is very much to the benefit of both the developer and the environment. The effort spent in anticipating environmental impacts and designing ways and means to avoid the negative impacts while accentuating the positive ones is usually well worth the investment. The EIA can make an important contribution to the

preparation of management plans aimed at ensuring that the necessary management steps have been clearly identified.

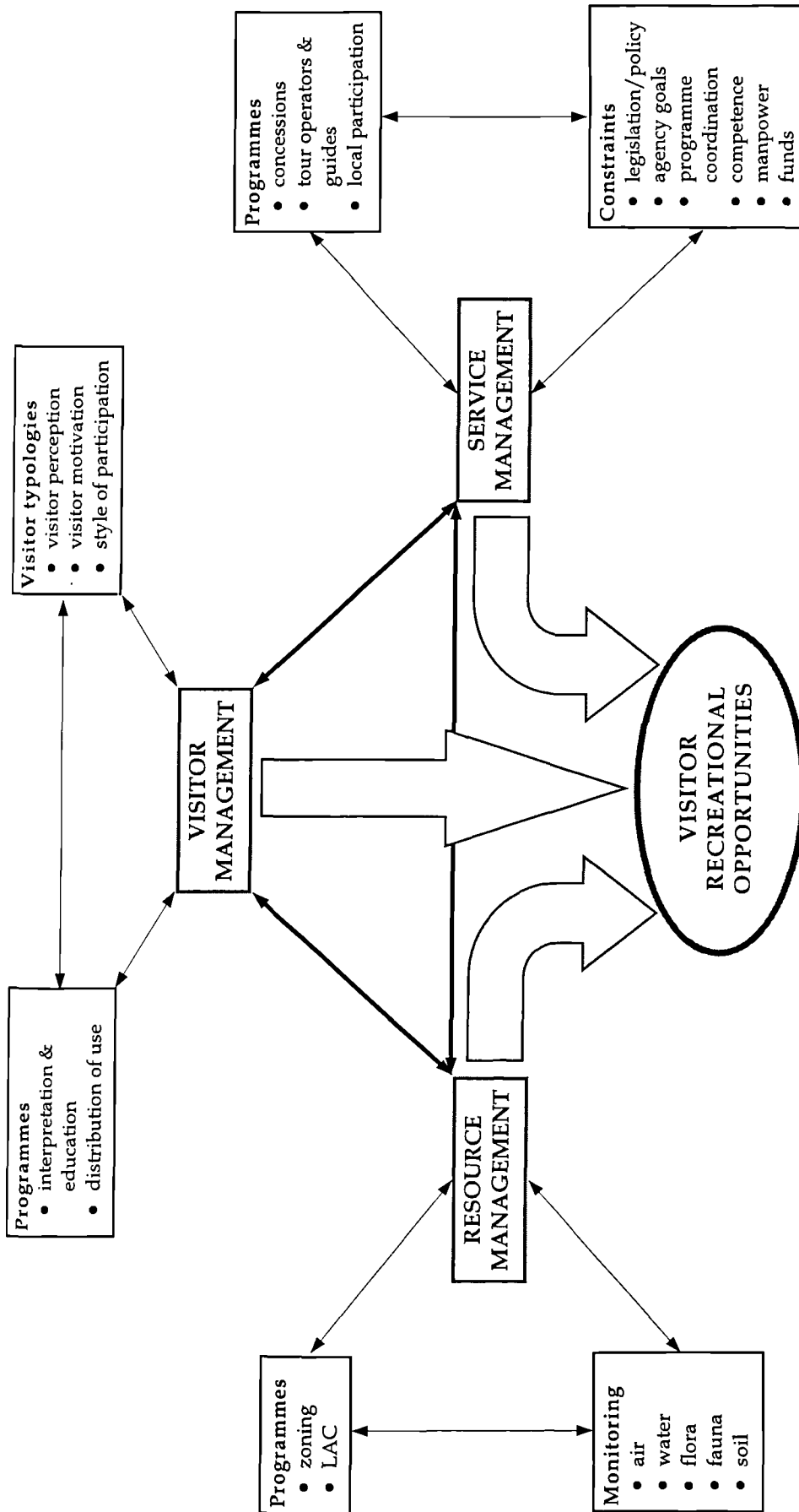
- Require the preparation of the management plan for all natural areas that are tourist destinations. Management plans guide all developments within a national park or other natural area and define the objectives and goals of the park in terms of the wider region. It is a valuable tool for identifying needs, setting priorities and organising the approach for the future.

4.4 MANAGING TOURISM IN NATIONAL PARKS

This section attempts to provide a conceptual framework in understanding the scope and implications of nature-based tourism in national parks. The conceptual framework utilise a management approach, demonstrating how visitor recreational opportunities are being influenced by the integration of several components. Adapting Jubenville, Twight and Becker (1987) Outdoor Recreation System Model, an integrated conceptual framework for tourism in national park (Fig. 4.1) is being developed.

The framework, which includes all significant components and their interactions, will help in understanding the concept of tourism management in national parks. The comprehension of a management approach on a conceptual level is beneficial since it illustrates all the elements involve in the framework and how they relate to each other. It attempts to include all the major players involved such as the visitors; government agencies; tour operators and guides; concessionaires; and the local communities.

The park manager faces many complex problems, often being influenced by various external factors. Therefore, a framework will help in understanding



Source : Adapted from Jubenville *et al.* (1987: 19)

Figure 4.1 Nature-based Tourism Management Strategy

the complexities and identify the areas where there is a need of baseline information and further research. Visitor recreational opportunities in the framework is being influenced by three components: visitor management, service management and resource management, each having their own sub-components (Figure 4.1). The following sections will focus on the nature of each component and their sub-components. The framework's ultimate goal is to provide satisfying visitors experiences while simultaneously protects the integrity of park's resources and the needs of the local communities.

4.5 VISITOR MANAGEMENT

The visitor is an important component in the framework since the visitor creates the demand for the experiences which require the other two components. It is for visitors that visitor opportunities are planned and managed in national parks. Visitors generally have special interests and expect the organisation, which is designed to provide the opportunities, to meet their needs. The natural resource base is the medium in which the experience takes place and satisfying visitors needs can be conducive or disruptive towards the park's resource. There are two primary objectives of visitor management, the reduction of impacts and enhancement of visitor experience (Jim, 1989).

Visitors are the principal target of management, since the preservation objective of national parks discourages large scale manipulation of natural and cultural resources (Manning, 1979). Visitors are relatively responsive to manipulation by a continuum of measures ranging from direct control to indirect influence on their behaviour and perception (Stankey & Schreyer, 1987 in Jim, 1989: 19). Pigram (1983: 89) proposed the function of visitor management as 'that of enhancing the social environment in order to maximise the recreation experience and is considered to be fundamental in park management'. For visitors to be responsive to visitor management, it must be practised with

sensitivity and imagination, and most importantly, a caring concern for the needs and aspirations of the visitors (Jim, 1989). A systematic monitoring programme is needed for park managers to monitor and evaluate such needs. If there are changes, appropriate management strategies could be devised to accommodate these changes.

Typologies of Visitors

Visitors visiting national parks can usually be categorised into two broad categories, namely nationals and foreigners. Nationals comprised of locals and domestic tourists, while foreigners are often associated with ecotourists and nature tourists (Boo, 1990; Fennell & Eagles, 1990; Hall, 1994; Lindberg, Enriquez & Sproule, 1996). They represent a cross-section of society, but on the average they tend to be slightly older, better educated and more affluent (Butler & Fenton, 1987; Snepenger & Moore, 1989; Ziffer, 1989; Eagles, 1992; Fennell & Smale, 1992).

Visitors to protected areas are not homogenous and will require different management approaches (Duffus & Dearden, 1990). To understand their characteristics and preferences, classification are based on factors such as motivation or interest level, activity, and the amount of physical hardship required.

Lindberg (1991) suggested four types of nature tourists, based entirely on their motive or interest level :

- *hard-core*: scientific researchers or members of educational or conservation tours; tolerant of limited amenities;
- *dedicated*: people who visit protected areas to learn about local natural history; tolerant of limited amenities;
- *mainstream*: people who visit unique natural area destination just to take an unusual trip; and

- *casual*: people who partake of nature incidentally as part of a broader trip.

Wilson and Laarman (1988) distinguished visitors according to their level of nature-related interest, that is *dedicated* versus *casual* and the requirement of physical rigor, *difficult* versus *easy*. While Kusler (1991) had categorised visitors according to group type: ‘*do it yourselves*’, ‘*group tours*’, and ‘*scientific tours*’.

Boo (1990) classified visitors according to the importance of protected areas in influencing their decision to visit a particular area. Responses from highly motivated visitors illustrated that the existence of the protected areas was the main reason for their travel decision where the less motivated indicated that the presence of a protected area was slightly or not important in influencing their decision to visit such areas.

Valentine (1992) suggested classifying visitors in the tropical rainforest reserves according to the nature of their activities. The threefold division include:

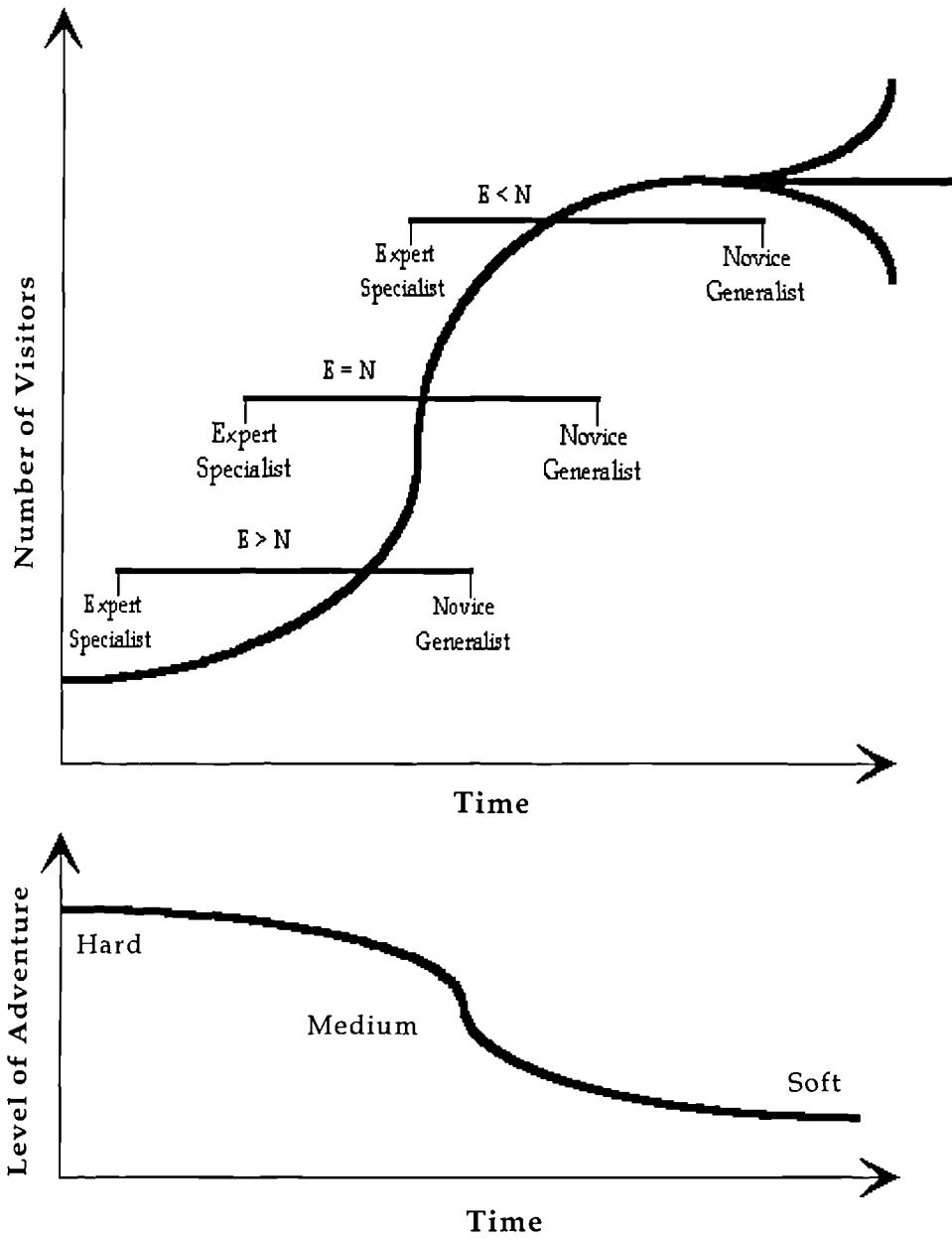
- those activities/experiences dependent on nature (e.g. birdwatching);
- those activities/experiences enhanced by nature (e.g. camping);
- those activities/experiences for which the natural setting is incidental (e.g. swimming).

Duffus and Dearden (1990) proposed a continuum between specialists and generalists, where tourist typologies present a sequential change in the type of visitors to a destination. Initially a destination is dominated by exploratory users (specialists), requiring little infrastructure, interpretative or visitors’ facilities and their presence is normally absorbed by existing support systems. As more people become aware of the destination, and associated activities increases, less ambitious users (generalists) will be more prominent. They have little

special interest in a site's attraction, relying heavily on supportive infrastructure and exerting pressures on the environment.

Integrating Butler's (1980) model of the evolution of tourist areas and Bryan's (1977) leisure specialisation continuum, Duffus and Dearden (1990) link the specialisation of the user and the changing characteristics of the destination area (Fig. 4.2). As the destination matures and the number and density of visitors at a particular site increases, the proportion of specialists will decrease relative to generalists. This occurs as the characteristics of the area changes and their relative social and ecological carrying capacities are exceeded. The specialist will be dissatisfied since he is less tolerant to crowding, will be more affected by a decline in environmental quality and will no longer visit the area. Consequently, there will be a change in the type of visitors, their expectations and preferences. Visitors surveys may still support that visitors are satisfied with the present conditions, however they are not the same type of visitors who visited the area earlier in its life cycle.

Similarly, related to the above is Plog's (1973) psychographic research, where he demonstrated a contrasting continuum of tourist personalities from psychocentrics (self-interest and anxious) to allocentrics (venturesome and self-assured), fitting the distribution of a bell-shaped or normal curve. Plog suggests that as tourist areas evolve, they attract different types of visitors, initially with small number of adventuresome allocentrics followed by a new breed of visitors, the mid-centrics as the accessibility, services and knowledge of the area increases, with allocentrics shifting to new destinations. Increasing development and greater visitor numbers losses its appeal to mid-centrics, but still attractive to the declining number of psychocentrics. He concludes by emphasising that destination areas has the potential of carrying their own seeds of destruction when they become more commercialised, and allowing their original attraction qualities to diminish.



Source : Duffus & Dearden (1990: 223) and Butler & Waldbrook (1991: 4)

Figure 4.2 The Relationship of User Specialisation and Site Evolution

The rapid increase in the number of visitors to national parks have often not given sufficient time to the management authorities to understand and react in ways to encourage successful long-term tourism development, while still acknowledging the primary conservation objective. It is relatively easy to develop marketing strategies to encourage visitation to national parks, but what is more difficult is targeting the appropriate visitors, whose characteristics, preferences, needs, interests and intensity of use are compatible with the resource base of the park and support their long-term goals.

Programmes of Visitor Management

Visitor management programmes are capable of influencing visitor perceptions, enhancing their enjoyment, while promoting behaviour which sustains the environmental quality of the park. It encourages a more positive response from visitors by increasing their understanding and appreciation of the park's ecosystems, its objectives and goals, hence alleviating the impacts caused by visitors. In this framework, visitor management programs are classified into two main categories. The first is a 'soft' option, where interpretation and education are used to influence visitor's behaviour. The second is distribution of use, where the option range from 'dispersion of use' to 'limitation of use' and the last alternative of 'closure'.

Interpretation And Education

Interpretation and education are basic tools utilised in managing visitors. McNeely and Thorsell (1989: 37) stressed the importance of interpretation by stating that 'not having an interpretation program in a natural area is like inviting a visitor to your house, opening the door, and then disappearing!'. It is necessary for visitors to feel welcome and have a good initial impression of the park, since the well-being of the park is dependent on the support of visitors.

Interpretation programmes are ways in which the park management can address the visitors. It helps to awaken public awareness of park aims and policies, and strives to create and develop an interest for protection (WTO/UNEP, 1992). It also helps in educating visitors the importance of protected areas and to appreciate their regional, national and global contribution.

‘Interpretation’ differs from ‘information’ because it does not only state the facts but attempts to explain concepts, meanings, and the inter-relationships of natural phenomena (McNeely & Thorsell, 1989). It should be interesting, entertaining, and has the ability to stimulate visitors’ curiosity about the park, hence increasing their overall satisfaction. Examples of interpretation techniques available in national parks include brochures and leaflets; specialised guides, keys and checklists; self-guided trails; wilderness trails; visitor information centres; and education centres (WTO/UNEP, 1992).

Interpretation helps to reduce negative visitors impact by communicating with park users on the overall purpose of the park. It is able to promote the ‘appropriate’ behaviour meant to reduce impacts on park resources since these impacts are not only being influenced by the number of visitors but more significantly by the types and behaviour of visitors (Wallace, 1993).

Interpretation can enrich visitors’ experience while motivating them to protect the environment in a logical and sensible way (Sharpe, 1976; Jubenville *et al.*, 1987). It should be able to provide the necessary information in alleviating the pressure of visitors in the park. Aldridge (1972) defined interpretation as :

...the art of explaining the place of man in his environment, to increase visitor or public awareness of the importance of this relationship, and to awaken a desire to contribute to environmental conservation.

As a management tool, (Sharpe, 1976; Jim, 1989) interpretation seeks to achieve the following objectives :

- increase visitors awareness, appreciation, and understanding of the area, thus enhancing their experience;
- accomplish management goals by encouraging the thoughtful use of the park's resources on the part of the visitor; and
- promote public understanding of the agency and its programmes.

Overall, visitors in protected areas react positively to the provision of on-site information, modifying their behaviour to lessen the environmental impacts (Gale, Gillen & Scott, 1988 in Buckley & Pannell, 1990: 29). However in many developing countries, information and interpretation are not easily available, while foreign visitors usually have specific motivations and high expectations related to the natural environment. In Thailand, Brockelman (1988) stressed the failure of managers to provide appropriate support for the growing numbers of foreign visitors interested in nature. Local visitors normally have different interests compared to foreign visitors, they are generally more familiar with the park's surroundings and participate less in the interpretative activities. However, foreign visitors who have spent substantial time and money are often interested in learning the natural history of the park and participate more in the interpretative programmes.

In developing interpretative programmes, it is important for managers to achieve park's objectives. Watson (1985: 80) points out that

too often interpretative programmes :

...reflects the needs of the staff rather than the needs of the park visitors...and park themes sometime revolve around the interpreter's expertise and interests rather than on management objectives or visitor expectations.

Park personnel with knowledge in social, behavioural, and communication sciences as well as in the natural and biological sciences are needed to provide appropriate programmes for visitors (Fennel & Eagles, 1990). Often, the help from NGOs or other related agencies are required in the preparation of information materials and interpretation programmes. Example of such aid include the production of two bird guides for Thailand's Doi Inthanon National Park and Khao Yai National Park, prepared by the World Wide Fund for Nature with the collaboration of the Conservation Data Centre, Mahidol University in 1989 (Valentine, 1992).

Wallace (1993) demonstrated that interpretation centres managed and staffed by the park personnel are also important in terms of providing non-commercial opportunities. He suggested self or ranger-guided nature trails; meeting areas for speaking to groups of school children, local people, or visitors; and picnic areas sited and designed for use by local people are illustration of the ways to balance the public and commercial offerings.

Besides the domestic and foreign tourists, interpretation programmes should also address the local communities. With the creation of a national park, they no longer have free access to park's resources. They are often not fully aware of other economically viable alternatives to support themselves or the environmental consequences they are capable of

generating. They usually do not understand and appreciate traditional interpretation programmes which concentrate on issues such as park's management objectives, biodiversity or the importance of protection, since they have difficulty in relating such issues to their subsistence based life styles. On-site interpretative programmes for local communities should be seen as a communication strategy, preferably in the form of extension programmes (Ham, Sutherland & Meganck, 1993). Extension programmes could focus on issues related to agriculture, natural resources, and personal health. These programmes can directly benefit the local communities and improve their overall living conditions. The increase in awareness and understanding will also assist in better environment-related behaviours, reducing their impacts on the park's natural resources, and help to foster a healthy relationship between local communities and park's personnel.

Distribution of Use

The second category of visitor management program is distribution of use. Visitors in national parks are often unevenly distributed, where the focus is mostly on a small portion of the park which is accessible and where activities and facilities are closely located. Distribution of use is a useful management tool because it can limit the use of congested areas by shifting visitors to lesser used areas, and can reduce the impact of use by making visitors more aware of what they are capable of generating. The approach utilised in the implementation of user distribution programmes should be indirect or skilful to encourage voluntary spread and avoid negative feelings (Jim, 1989).

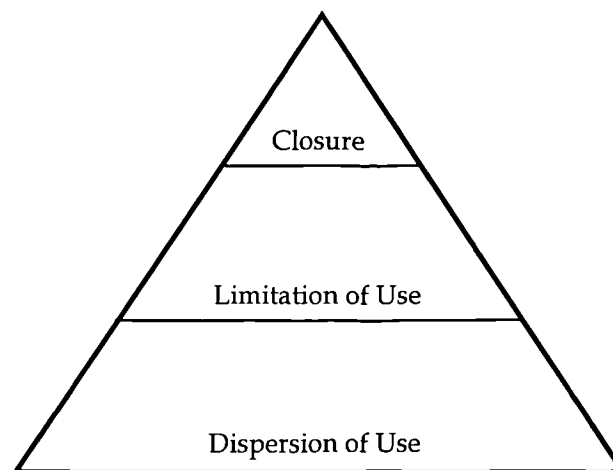
Lucas (1981 in Jim, 1989: 25) outlined the three management objectives of visitor distribution :

- to reduce the sharp contrast between heavily and lightly-used

areas;

- to raise or lower use-levels to match current carrying-capacities; and
- to redistribute users so that their desired preference is matched by appropriate settings.

Figure 4.3 illustrates the three principles of visitor distribution in ascending order. Dispersion is especially essential when crowding have a detrimental effect on the resource base or the visitor experience, or a combination of both. Crowding, however is influenced by perception, which is controlled by a combination of factors, namely the number, type and location of encounters, the style of activities, and also expectation and preference (Graefe & Vaske, 1987).



Source : Adapted from Jubenville *et al.*, (1987: 142)

Figure 4.3 Principles of Visitor Distribution, in ascending order of implementation

Dispersion is a voluntary redistribution of visitor use over an area and should be the first alternative when overuse is observed on some areas while others remain underused (Jubenville *et al.*, 1987). The redistribution does not aim at distributing visitors evenly, but focus on the issue of balance, taking into consideration the resilience of the ecosystems and visitor preferences. Hence, the less sensitive and more durable areas are given more weight. Sometimes, redistribution purposely aims at concentrating visitors in 'honeypots' of high carrying-capacities (Manning, 1979). The philosophy behind this strategy is to concentrate a large proportion of use on a small area of the park, in order to restrict environmental impacts in intensively managed areas.

Limitation of use is the restriction in the number of people who may participate in a particular activity at a particular location. The justification for such restriction is when the demand for the visitor recreational opportunities exceed the supply or capability of the resource. A fair, non-discriminating and efficient method is required to allocate the places to potential visitors, while informing visitors the reason for such control to avoid disappointment (Jim, 1989). Manning (1979) stressed that although such strategy is relatively easy to implement, it is important to comprehend that most national parks are being established for the dual purpose of preservation and for public appreciation and enjoyment. He emphasised that the exclusion of visitors should only be considered after all other approaches have fully been explored.

Closure is normally the extreme option for changing visitor use patterns, and it may be either transitory or permanent to protect the resource base. Permanent closure is the last resort when there are no other alternative methods available to protect the resources. In certain national

parks in developing countries, the parks are closed during the monsoon season. The park management usually utilise this period to repair and upgrade trails or other facilities, and to a certain extent it also allows the regeneration of the park's resource base.

4.6 SERVICE MANAGEMENT

Service management is concern with the provision of facilities and services for the visitor, and also the development of other related services, such as increasing the socio-economic benefits of tourism to local communities. Often, criticism of tourism development in national parks is related to the quality of fit. Will the development of tourism facilities fit into the overall natural setting and accomplish the management objectives of the park, or is it considered as inappropriate, in conflict or extrinsic to the existing environment?.

The development of tourism in national parks is often the responsibility of a designated public agency. How well the agency performs is being influenced by its efficiency, effectiveness and management strategies. If decision-making is being determined by a central authority, away from the actual conditions, management decision-making often become routinised or stereotyped, not fully utilising the knowledge of the park manager (Jubenville *et al.*, 1987). Therefore, there is a need of balance in the decision making process, with some flexibility at the park level while still maintaining some consistency at the higher level.

The increasing importance of tourism in national parks of many developing countries often requires a more organised and independent agency which is able to manage the park resources more efficiently. Often, the structure and style of management of the traditional agency responsible for the management of national parks have difficulties in adapting to the growing demand of tourism.

In Kenya, the government established the autonomous Kenyan Wildlife Services (KWS) in 1989, replacing the Department of Wildlife Conservation and Management,

...with the primary role of ensuring protection and management of wildlife both inside and outside parks and reserves, and to use wildlife resources sustainably for economic development and to protect people and their property from wildlife with the latter assuming a positive role in the lives of rural people sharing the land with wildlife.

(Gakahu, 1994: 31)

In Peninsular Malaysia, the management of protected areas (national parks, wildlife reserves and sanctuaries) come under the jurisdiction of Department of Wildlife and National Parks (DWNP), whose Director-General reports to the Minister of Science, Technology and the Environment. DWNP was formerly known as the Game Department where its major tasks then include issuing licence for the hunting of wildlife for sport purposes, and the protection of crops and plantation from the larger game animals. The roles and responsibilities of DWNP have evolved, presently it is more concerned with the protection of parks resources and the management of tourism. However, the institutional structure of DWNP is generally not equipped for the effective management of tourism in protected areas. The situation is aggravated by the lack of access to an adequate financial base, insufficient manpower and lack of expertise in the field of social sciences including tourism.

Concession Services

The means by which facilities and services are provided, such as those associated with accommodation, food, transportation and gift shops are dependent on the respective government policy. The option is either self-operation by the national park agency itself or through a contractual arrangement with a private operator, normally known as the concessionaire. Initially, when

the number of visitors is small, the government often subsidise the provision of facilities and services due to the reluctance of private operators to provide such services. There are relatively few countries where the government entirely supply and operate visitor facilities in protected areas, as in the case of South Africa where the Government plans, constructs, operates and controls all visitor service facilities, with no leasing arrangements available to the private sector (MacKinnon *et al.*, 1986).

The benefits of a government management, ownership and operation of visitor service facilities as outlined by MacKinnon *et al.* (1986: 226) are :

- Quality of goods and services can be given a high priority (perhaps a higher priority than profits);
- Complete control in all staffing and personnel matters;
- Complete control over all financial transactions;
- Tight control of stocks and records; and
- Control of visitor use and movement so that disturbance to wildlife or other park's resources are minimised.

However, several disadvantages of the public approach include :

- The large capital investment which may be required to construct facilities and equipment may not be available from government sources;
- Staff personnel can consume excessive amount of time, sometimes to the detriment of other management activities;
- There may be difficulties in securing a qualified and experienced concession manager, as well as qualified staff; and
- When profit motivation is not critical to the operation, there may be inefficient employment of staff.

Regardless of whichever method utilised, the main concern is on the quality of service provided. If a private concessionaire is to provide the services, the park agency will have to specify all conditions and have strict controls, since profit motivated concessionaire is likely to exceed capacity when there is an apparent increase in demand for such facilities, as experienced in Kenya's Masai Mara and Amboseli National Park.

Moreover, visitors always have the impression that visitor facilities and services are under the full responsibility of the national park agency, and seldom realise that the private concessionaire is also partly responsible. Conditions and details that the park agency need to specify to the concessionaire include the quality of structure, type of building materials, location, size of facilities, length of lease, specific contractual arrangements, profits margin and method of financing (MacKinnon *et al.*, 1986). The management agency has the responsibility to choose an appropriate concession operator, which reflects sympathetic values towards the park's resources. Similarly, Buckley and Panell (1990) recommended incentive systems in controlling the type of development. He suggested it is important to avoid facilities which encourages non wilderness recreation such as golf courses, tennis courts and trail bike areas or inappropriate development such as large hotels, conspicuous cable cars and marinas in an area which is intended for conservation and low-impact wilderness recreation.

MacKinnon *et al.*, (1986: 227) list the main disadvantages of a private concession in the management, ownership and operation of visitor service facilities as :

- Profit motivation may lead to inferior goods and services;
- It may be difficult to control quality of service to the public, while the public assumes the operation is government-operated; and
- Leasing or granting concession rights may result in political pressures

to increase the type and availability of certain services not deemed appropriate for the park.

However, the main advantages of the private concession or leasing approach are :

- Capital investment is the responsibility of the operator, relieving government of such financial obligation;
- It is essential that profits are realised, ensuring on-site management for optimum returns on the investment;
- Service staff are closely supervised and controlled;
- Much emphasis is placed on efficiency and cost control in labour and service;
- If one concessionaire operates a number of facilities, there may be a better opportunity to realise savings on purchase of goods and saleable products; and
- All personnel matters are the responsibility of the operator.

Another alternative of providing visitor services is through a 'trust' arrangement, which is a non-profit organisation with no formal relationship to the public or private sector, such as the King Mahendra Trust in Nepal. Funds to upkeep the visitor facilities are from entry fees, member subscriptions, legacies and donations. Additionally, visitor services may also be provided through 'park staff co-operatives', an approach which seems to be unique to South-east Asia. This concept is being applied in Kinabalu Park and will be further discussed in Chapter 6.

Often, visitor facilities in many national parks are a combination of both, the public and private sector. The role of the public sector is essentially social while the position of the private sector is basically economic. Interference of the government is at times needed especially when the services provided by private

concessionaires are limited or too costly to meet the needs of the overall visitors. An example of such situation is explained by MacKinnon *et al.* (1986), in the case of Japan, where in the 1960s, experienced a dramatic increase of visitors to its national parks. However, there was a shortage of reasonably priced facilities, since the private operators preferred to offer luxurious and costly facilities, which led to the introduction of the 'National Vacation Village', where facilities were being developed to cater for the youth and families.

Tour Operators And Guides

Tour operators in protected areas can be distinguished by their level of commitment towards the natural areas where visitors are being taken. Ziffer (1989) has identified a spectrum of tour operators, where the segmentation is based on their level of involvement and whether they are in the 'for-profit' or 'non-profit' category. The operators in the 'for-profit' can be classified with increasing levels of local involvement, as :

- selling nature: unaware or uncaring about impact;
- sensitive: aware of impact, seek to educate and influence visitors attitudes;
- donors: act positively to improve the environment, restore damage, donate a portion of trip costs to local conservation projects; and
- do'ers: initiate conservation projects or research, often non-profit affiliates.

In the 'non-profit' category, operators (often NGOs) run trips for several purposes, including activities for members, funding, education, or research. Hvenegaard (1994: 29) suggested that tour operators in natural areas can be distinguished according to :

- the amount of control on the various environmental, social, and economic impacts; and

- the level of commitment given to education, reflected in the quality and training of guides and distribution of information.

If the level of control is low, it is capable of generating negative impacts such as pollution, erosion, cultural conflicts or excessive leakages. However, if the control is high, many of the negative impacts can be mitigated. The level of commitment given to education is reflected in the distribution of information, such as guidelines for visitors which highlights the appropriate natural and social ethics, and the use of quality guides, which will promote environmentally responsible visitor behaviour.

For an individual tour enterprise, the quality of guides is possibly the most important factor determining success or failure of nature travel in developing countries (Laarman & Durst, 1987). The guides information giving role is crucial since they are perceived as experts and sources of information, equipped with precise knowledge of the history, geography and cultural environment of the area being visited (Holloway, 1981).

Cohen (1985) identified four roles of the tour guide, i.e. organiser, facilitator, leader, and educator, which are oriented towards providing a quality experience for the visitors. Weiler and Davis (1993) suggested two additional roles of the tour guide in nature-based tourism, that of motivator and environmental interpreter. Besides providing a quality experience, it emphasise the role of the tour guide in facilitating an environmentally and socially responsible tourist experience. Explanation, information, interpretation and persuasion through an intermediary can influence the perception and behaviour of visitors.

Traditionally, park managers have utilised the services of rangers and naturalists as intermediaries in facilitating responsible visitor behaviour.

However, with the high number of visitors, shortage of manpower and budgetary limitations, certain parks are having difficulties in providing visitor orientation services on a personal basis. The usage of private tour guides as a means of promoting the goals of the park through informing and educating visitors, and assuring visitors conform to park regulations will supplement the responsibilities of the national park agency (Moore, 1981).

The significant roles and responsibilities of tour guides indicate an urgency for more formal education and training programmes for guides. The need is even more since nature-based tour guides are responsible for the well-being of the environment, by motivating visitors to behave in an environmentally responsible way.

Local Communities

Studies (Pizam, 1978; Murphy, 1981; Sheldon & Var, 1984; Liu & Var, 1986) have suggested host population often perceived the impacts of tourism development differently. Positive attitudes tend to be affiliated with tourism's economic benefits, while negative or in some cases neutral attitudes are associated with social-cultural, legal and environmental impacts of tourism. Studies by Pizam (1978) in Massachusetts, Rothman (1978) in Delaware, Belisle & Hoy (1980) in Columbia, Murphy (1981) in England, Liu and Var (1986) in Hawaii, Milman and Pizam (1988) in Central Florida, and King, Pizam and Milman (1993) in Fiji have emphasised tourism's perceived capacity to generate employment. In most of the studies, distinction between positive and negative attitudes were often related to whether residents were directly involved in the tourism industry or not, with those benefiting directly being more supportive towards the industry.

Perception of tourism is also being influenced by residents socio-demographic characteristics. Sheldon and Var (1984) study on North Wales has

demonstrated differences in perception related to period of residence, while Brougham and Butler (1981) study in Sleat, Scotland indicated the age factor in influencing differences in perception.

Liu, Sheldon and Var (1987) study on the resident perception of the environmental impacts of tourism in Hawaii, Wales and Turkey has shown that residents awareness of the environmental impacts of tourism is greater when tourism is more developed and has been operating in the economy for a longer time. Residents in Hawaii and Wales are more concerned with the negative environmental impacts compared to those in Turkey.

Doxey (1976), Gunn (1988) and Martin and Uysal (1990) indicate that the level of tourism development influences residents' perceptions of tourism impacts and generally there is an inverse relationship between the level of tourism development and the perceived economic, social and environmental impacts of the host population. The study by Allen, Hafer, Long and Perdue (1993: 31-32) on the attitudes of residents from rural communities toward tourism development propose the following four relationships :

- residents from rural communities with low economic activity and low tourism development have high hopes and/or expectations for future tourism development;
- those with high economic activity and high tourism development are relatively positive towards tourism development because they have actually realised some benefits from tourism development;
- those with high economic activity and low tourism development are economically stable, so their residents do not see the need for tourism development; and
- those with low economic activity and high tourism development are discouraged because they have not realised the economic benefits they anticipated from tourism development.

In developing countries the creation of national parks has often affected the livelihood of local communities since they no longer have free access to the parks' natural resources. Some locals perceived tourists in protected areas as having very little interest in their social well-being, similar to the previous colonial exploitation due to the wealthy and non-local nature of the tourists. Moreover, tourism in protected areas have altered their social structure such as: changes in consumption pattern; behaviour and values of local people through the exposure of the different culture and life styles of tourists; increased in land values through speculation; and higher prices of local goods. The limited jobs available in parks further aggravates the local resentment against tourism. In such situations, national parks may be viewed as against the interest of the local communities, being specially catered for tourists or certain elite outsiders who have the financial resources and political connections for investment in tourism projects.

The planning and management of national parks in developed countries has emphasised preservation and conservation of the flora and fauna. However, developing countries with large rural populations and subsistence economies realised that this approach must be adapted accordingly to achieve success in the programs undertaken by national parks. They would need to provide some economic benefits for the local communities, which are consistent with conservation objectives and goals (Eidsvik, 1980; Mishra, 1982).

This policy of integrating conservation and development has been embodied in the World Conservation Strategy and was strongly supported by the Third World Conference of National Parks held in Bali in October 1982. This is perceived as a strategy for the future and to a certain extent the alliance of conservation and development could be seen as a return to Pinchot's principle of 'utilitarian conservation' (Haber, 1986). The concept of sustainable development also stressed the social aspect of community's relationship with the environment,

encouraging integration and making conservation to be part of the fabric of human society. However, in practice, local communities has often been neglected in such integration, suggesting a form of ecological imperialism in which a new set of European cultural values is being adopted on indigenous culture (Hall, 1994).

Lusigi (1984) states that in certain African national parks, not much of the tourism income directly benefits the local communities around the park. He further states that the local people are required to get a permit before being allowed to enter the land which was previously theirs and often lack the monetary resources to purchase buses or other resources needed to join the tourism industry. A substantial proportion (92% in 1989) of Tanzania's Ngorogoro Conservation Area Authority income is from tourism fees, however none of the Masai are employed in hotels. However, the recently established Kenyan Wildlife Service has adopted a different approach, which include setting up a new Community Wildlife Service, where tourism revenues generated by wildlife are shared with the local communities who bear the burden of protecting wildlife for the sake of tourism and conservation (Christ, 1994, cited in Shackley, 1996: 91).

In certain cases, the negative sentiment of locals may be due to the human deaths and destruction of crops by the park's wildlife. Valentine (1992) explained the situation in the Indian Dudwa National Park, the increasing resentment is due to the high incidents of locals being killed by tigers, a total of 93 in four years. A compensation of Rs5,000 per death is being paid but a fine of Rs50,000 is being imposed by the Government on any locals caught for killing a tiger. In one district alone in Kenya, between 1989-1994, 26 people have been killed by elephants, mostly farmers trying to protect their crops (Lawson, 1996). Similar to the Indian case, it is an offence to kill an elephant in Kenya. Such Government regulations may be viewed by the locals as having higher priorities

on wildlife rather than human life, benefiting only tourists and consequently gaining less local support for conservation.

Local people are often being reallocated or their access to the park's resources being restricted because of the national park. The authorities should offer some form of assistance and support which may include the opportunity of working in the park, monetary assistance and guidance on appropriate tourism ventures and assistance in agricultural development. For instance, in the Royal Chitwan National Park in Nepal, local communities are allowed to harvest fodder during critical periods of shortage, providing them a legal source of fodder thereby reducing trespass grazing in the Park (Sharma & Shaw, 1993).

Presently, local communities encounter many difficulties in involving, controlling and gaining benefits from park tourism. The assistance from the Government is often necessary in guiding, educating and training the local communities on the various aspect of tourism. Boo (1990) emphasised the local communities still lack certain necessary skills such as the language fluency and natural history knowledge of the national parks. The absence of such skills tend to benefit outsiders, leading to more leakages and limiting the extent of local control and gains.

Planning must consider the community involvement by finding suitable ways of approaching, understanding and integrating them into the overall management and development. Local communities should be involved in any decision making which will influence their quality of life and the bottom-up approach should be encouraged, rather than being dominated by decisions made solely by government agencies. When the local communities are involved in tourism development and are aware of the benefits and shortcomings, there will be more commitment towards the preservation of the natural and cultural resources on which tourism is dependent. Val (1990, in Robinson 1992: 130)

notes the advantages of involving local communities in tourism development, which include: the acceptance and support of tourism development; the inclusion of local traditional and resource base knowledge in planning; lower management costs by employing local people; and their ability to monitor and enforce sustainable development policies.

McNeely and Miller (1984) stressed that the previous ideology of protecting parks from local communities have gradually changed in response to the present socio-economic realities. While still fulfilling the primary objective of nature conservation, local people should now have a more prominent role in tourism development and be seen as appropriate partners. Although balancing conservation and development is difficult, often in many developing countries, integrating conservation with the socio-economic needs of the surrounding communities is the only feasible and ethically acceptable alternative (Perkin & Mshanga, 1992). Such approach has been attempted in national parks in Africa (Western, 1982), Southern Asia (Mishra, 1982) and South America (Jacobson & Robles, 1992). Conservationist Miller (1986, in Sharma, 1990: 134), strongly emphasised that 'more and more budget from parks themselves ought to be spent outside the boundaries...in many cases biology can wait but the surrounding community cannot'.

New approaches, collectively known as ICDPs (integrated conservation-development projects) aim at integrating the social and economic development of local communities with protected area management have recently been established (Wells, Brandon & Hannah, 1992; Munasinghe & McNeely, 1994a). ICDPs recognised that with the establishment of national parks, local communities are often denied access to the park resources and are not provided with alternative income sources. It therefore strive to achieve the conservation objectives of parks by addressing the needs of local communities, recognising that park management does not only involve activities inside the park but also

what goes on beyond its boundaries. These projects emphasise community participation as opposed to the traditional measures which stressed on policing and anti-encroachment measures (Brandon, 1995).

The new Director of KWS (Kenyan Wildlife Service), David Western recently emphasised, what the former management overlooked was, what was going on outside the parks, which ironically became a much deeper political issue (Lawson, 1996). The concept of the ICDP is based on the foundation that the success of park management will eventually rely on the acceptance of park policies by the local communities, and the cooperation and support of local people towards the management of the park. This belief is shared by the 1992 World Parks Congress in Caracas, where Brandon (1995: 142) summarised it as

...neither politically feasible nor ethically justifiable to exclude people with limited resource access from parks and reserves without providing them with alternative means of livelihood.

The recent study on 'People and Parks' by the World Bank on the 23 ongoing ICDPs in developing countries revealed that many of the pressures on the park ecosystem may be due to inferior designed laws, policies, social modifications and economic circumstances rather than local communities themselves (Wells *et al.*, 1991). Furthermore, case studies by West and Brechin (1991) suggested that there are often confusions in incorporating local people in the planning process. Instead of true participation and power sharing, emphasis have been on educating the local communities in accepting plans already determined by those in power. Education is important, but it should not be used to promote a predefined policy under the label of protection. The case studies emphasised the risks involved in taking local communities for granted, without true decentralisation of decision-making. Such strategies will eventually lead to the loss of faith with the authorities concerned and reduce the chances of

cooperation in future. Continuous monitoring is also needed to ensure that local elite does not dominate the project at the expense of the rural poor who are intended to be the primary beneficiaries.

4.7 RESOURCE MANAGEMENT

Resource management in national parks requires an understanding of the ecosystems and ecological process operating in the parks. Active management is required to preserve the natural qualities of parks. However, interference with the ecosystems should be approached cautiously due to the complicated nature of the relationships, since inappropriate management strategies can be more damaging than no management at all.

The two most widespread habitat types found in national parks of developing countries are savannah and rain forest. MacKinnon *et al.* (1986) emphasised the significant ecological differences between them, which consequently require different management approaches. With proper management, savannah areas are capable of recovering from levels of severe degradation in a relatively short period of time compared to the rain forests. Once rain forests have been destroyed, they will never recover their original form, with the same plant and animal species. Moreover, the great diversity of plants and animals are related to the low density of species, which particularly makes them vulnerable to local extinction. The conservation of savannah areas require manipulative management such as the regulation of animal populations, cutting of vegetation and controlled burning, while in the rain forests, interference should be minimised to maintain the ecological climax (maturity) and allow regeneration in disturbed areas.

Zoning

Zoning in national parks is an important tool for resource management. The established zones will provide proper recognition and protection for park resources, while indicating the respective management approaches. The zones proposed for each national park must be consistent with the objectives of the park and classified according to their need for protection and compatibility with tourism (WTO/UNEP, 1992). Besides protecting the resource base and indicating where physical development can be located, zoning also provides diversity in the experiences available to visitors.

Wallace (1993: 67) emphasised that the selection of management objectives of each zone are determined by :

- resource constraints and ecosystem resilience such as soil type, altitude, ecosystem features, the needs of wildlife; and
- the availability, type, location, and distribution of desired experience opportunities for visitors.

This requires the understanding and balancing the needs of both, the resource base and the visitors. It implies that park managers should be knowledgeable on visitors' motivation and the experience they seek, and providing these opportunities within the limit of the resource base.

In general, the zones proposed by WTO/UNEP (1992: 26) in a protected area are :

- *strict protection* or *sanctuary* - areas considered to be of importance to protection and maintenance of ecological process, biological diversity, unique, rare or endangered species. Access is strictly controlled. General management objective is to reserve the natural environment, providing only for scientific or educational purposes.

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- *wilderness* - areas maintained as natural environments and which has received little human alteration. Contain unique portions or elements of the ecosystems, flora and fauna. Tolerate very moderate public use, where visitors are permitted only on foot. General management objective is to preserve the natural environment, environmental education and primitive forms of recreation.
 - *tourism* - consist principally of natural areas but may contain area with human alteration. Have example of the general scenery and the significant features of the park, where visitors are encouraged in various compatible ways. The general management objective is to maintain a natural environment, while providing access for visitors' appreciation and enjoyment.
 - *development* - consist of natural and man-altered areas. The environment is kept as natural as possible, but the development of support facilities and concentration of visitors are accepted. The general management objective is to facilitate environmental education and visitor needs in a manner which harmonises with the natural environment.

A well planned zoning system protects the park's resources, while providing more options and quality to the visitor experience. Tourism associated with national parks rely greatly on low density, more remote and pristine zones to provide a quality experience. In many areas where zoning is not present, increased visitation will eventually displaced the 'original' visitors as they shift to new, 'undisturbed' destinations, accelerating the recreational succession. Dixon and Sherman (1990) notes that although normal visitors are not allowed in the sanctuary zone or even if they do not venture into the primitive zone, they

may derive a benefit simply from knowing that they exist or what is known as the 'existence value'.

Limits of Acceptable Change (LAC)

Too many visitors in a national park have the potential of degrading the resource base of which the visitor opportunities are dependent on. Much attention has been given to the concept of capacity, where the literature has identified a range of factors influencing capacity levels (see *Industry and Environment*, 1986). In the simplest form, tourism capacity is the maximum number of visitors an area can tolerate and once it has reached the limit, it has a negative effect on the host population and the resources. O'Reily (1986: 255) suggested that capacity levels are influenced by two major group of factors :

- the characteristics of tourists, namely socioeconomic characteristics - age, sex, income, availability of spending money; their motivations, attitudes and expectations; their racial and ethnic backgrounds; and behaviour patterns. Other elements such as level of use of the facility, the visitor density, length of stay, types of tourist activity and levels of tourist satisfaction are also equally influential; and
- the characteristics of the destination area and its population, which include factors such as natural environmental features and processes; economic structure and economic development; social structure and organisation; political organisation; and level of tourist development .

However, little progress has been made towards the practical application of the carrying capacity concept (Yapp & Barrow, 1979), which are mainly due to the difficulty in quantifying the influencing factors. In resource management, there are many difficulties in providing managers with the necessary information regarding the appropriate use levels, both ecologically and socially. Due to these shortcomings, Stankey, McCool and Stokes (1984) have expressed the concept of carrying capacity in terms of Limits of Acceptable Change (LAC) which

involves identifying the desired social and resource conditions which the management is committed to maintain.

Stankey *et al.* (1984) noted that weakness of the carrying capacity concept was a lack of clear and predictable relationship between use and impact and also what was known as 'it all depends' syndrome. The endless number of factors on which the use-impact relationship was relying, makes it extremely difficult for managers to get practical answers. Attention is therefore focused on the desired conditions, a shift from the appropriate use level. The LAC concept accepts change, both environmental and social. It redefines the traditional question about carrying capacity from "How much use is too much?" to "How much change is acceptable?". It changes the focus of management from 'use level' to the 'desired' environmental and social conditions in natural areas. Since LAC focus on desired conditions and acceptable change, it is influenced more by personal judgements of park managers, researchers and the public, rather than the technical procedure of understanding use and impact and deriving at the 'magic' number.

Wallace (1993: 72) discussed the application of the LAC concept with respect to Galapagos National Park, where he described the process as :

- Select indicators for the management parameters at a given site in a particular zone. Such indicators include both, biophysical and social in nature and are directly related to the activities of visitors. Biophysical indicators include soil erosion, site spreading and stress on a particular wildlife species. Social indicators would be perceptions of crowding, the number of encounters with other groups per day at a site, the number of over-bookings by tour operators and the number of safety violations.
- Establish standards for each indicator that set some limit of acceptable change. Some impacts are inevitable, but managers must

be willing to say how much impact they will accept before changing the way they are managing. If trails are eroding faster than it is feasible to maintain them, if viewing areas are getting too wide, if some animals are changing their behaviour in an unacceptable way, then management actions must be taken. These actions include reducing the party sizes, some sites hardened or perhaps the overall number of visitors reduced.

- Monitor conditions and if acceptable limits are exceeded, make management changes that will bring resource or social conditions back within limits. Often current conditions are already unacceptable and must be corrected. If the changes are unacceptable, such as an extreme change in behaviour of a particular wildlife, it may be necessary to re-route a trail, to ask visitors to behave differently, or in the extreme case, to change the opportunity class and zone, hence reducing the number of visitors. Monitoring conditions requires that a park have good baseline data on existing conditions in order to be able to select indicators, set standards, and to detect changes.

The LAC concept is still relatively new and more research is needed to further comprehend the various elements proposed in the approach. However, it does provide insight to overcome the weakness of the carrying capacity concept. The LAC approach also requires park managers to be familiar with the details of management, since it requires the continuous monitoring of the overall situation.

4.8 SUMMARY

Tourism and nature are natural partners, and each can benefit from the other if properly planned and managed (McNeely & Thorsell, 1989). Tourism associated with national parks has great potential for social and economic benefits if planning and management strategies do not only stress the development oriented approach but also view tourism as a resource, for the benefit of the present and future generations, with ecological limitations and human values to be protected. The practice of ad-hoc development should be replaced by greater cooperation and integration, acknowledging tourism's responsibility on the natural and cultural resources, upon which the quality of the experience depends, while considering acceptable limits of change in order to conserve the environment.

National parks should be viewed as tourist attractions in their own right. Tourism activities which are compatible with the park's resources such as those based on wilderness travel and natural history tours should be encouraged, while high impact recreation should be discouraged (Buckley & Pannell, 1990). Apart from the classic reasons for protection such as protecting watersheds and soils, ameliorating local climate and maintaining populations of important species of plants and animals (McNeely & Thorsell, 1989), protection of the environment is necessary since natural ecosystems are the product base for tourism and the sustainability of the industry.

Due to the complex nature of the product base, there is a tendency to underestimate the possible impacts and their cumulative effect on the ecosystem. As the development pressure continues, inappropriate plans and approach may be adopted to capture the financial benefits. In certain destinations, without the appropriate management, an area may lose its uniqueness, the initial 'specialist' may no longer be attracted, and the area may lose its competitiveness, as being demonstrated in Butler (1980) tourist area cycle.

National parks in many developing countries lack visitor management programmes. Park managers are traditionally trained in wildlife management, with little knowledge and experience to manage the growing number of visitors. There is a need of more park personnel with knowledge in both, social and biological sciences to effectively cater the needs of visitors and the protection of park's resources.

The previous perception of national parks as 'locking away' of resources and protecting it from the local communities is gradually diminishing as conservationists acknowledged the present socio-economic realities. An integrated approach which attempts to combine conservation, tourism development and the socio-economic needs of local communities is often the only feasible and ethically acceptable alternative.

National parks often are managed and are being influenced by a number of agencies with conflicting goals and objectives. The success of tourism and resource conservation is dependent upon the complex integration of public policy and private enterprise. National Tourism Plans should incorporate general guidelines for tourism development in national parks, taking into consideration the specific nature and needs of the area. However, as Holder (1991: 285) emphasised this requires the wisdom of Solomon and the key word is balance in :

...maintaining, as far as possible, the natural balance between ecosystems, balancing economic and social goals, balancing the responsibilities of the state with the rights of individuals and groups.

Chapter Five

BACKGROUND TO PRIMARY RESEARCH

5.1 INTRODUCTION

The aim of this chapter is to explain the research methodology utilised in obtaining the primary data and is divided into four main sections. The first section briefly described the concept of research design, followed by a discussion of the chosen research design. The second section outlines the seven main objectives of the study and the nine propositions proposed to achieve the predetermined objectives. The third section focuses on issues related to methods of data collection and questionnaire development. The final section is concerned with various sampling procedures available for the selection of sampling units and presents the phases involved in the fieldwork for the data collection process.

5.2 RESEARCH DESIGN

Research design is a form of carefully developed and controlled plan to carry the research investigation, indicating steps that will be taken and their sequence (Pizam, 1994). Churchill (1988) defines research design as a framework or plan for a study used as a guide in collecting and analysing data, a blueprint followed in completing the study, which includes the elements to be examined and the procedures used to examine them. The primary purpose of a research design is therefore to assure that the study will be relevant to the objectives of the research.

This study is exploratory in nature with a descriptive bias in the form of case studies. Descriptive design is especially useful when the objective is systematic description, factually and accurately, of facts and characteristics of a

given population or area of interest (Pizam, 1994). This type of research design is most appropriate in research where the natural setting of events cannot be altered and where the researcher measures the subjects of interest as they exist naturally. Churchill (1988) established that descriptive designs can be utilised for the following purposes :

- To describe the characteristics of certain groups;
- To estimate the proportion of people in a specified population who behave in a certain way; and
- To make specific predictions or discover relations and interactions among variables.

The main disadvantages of the descriptive design is it lacks rigid control measures (Pizam, 1994), and its results lead only to conclusions about association or relationships, not cause and effect (Sproull, 1988). Kerlinger (1986) summarises the weaknesses of this design as :

- the inability to manipulate independent variables;
- the lack of power to randomise; and
- the risk of improper interpretation.

In descriptive designs, there are several approaches in obtaining data, with the two common ones being survey and case study methods. In this research, the case study method was adopted as it tend to provide an in-depth examinations of a given social unit resulting in a complete, well organised picture of that unit (Isaac & Michael, 1981). It involves thorough analysis through questionnaires, interviews or group discussions of a number of cases from which conclusions are drawn. This type of research is relevant in studies that focus on the understanding of specific areas that are not well documented (Bryman, 1989) and requires deeper understanding of how things happen rather than testing relationships between them (Gordon & Langmaid, 1988).

Case studies have the following advantages over other types of research designs (Black & Champion, 1976: 91) as they :

- are flexible with respect to data-collection methods used;
- may be conducted in practically any kind of social setting; and
- are inexpensive.

Case studies are also beneficial in providing background information for planning and can serve as hypotheses generators for future research (Pizam, 1994). However, the main drawbacks of case studies are the lack of generalisation and vulnerability to subjective bias.

Selection of Research Design and Study Areas

The choice of a case study research provides the benefit of an in-depth analysis of the study area and many of the problems encountered can be investigated readily. Because of the great diversity of the many elements that influence tourism in national parks, the case study approach will be able to provide information on the various management factors which influence visitor opportunities in national parks. Since tourism knowledge associated with national parks is in a stage of infancy, any description of the various factors influencing it will be helpful in the planning and management process.

As with most case study research, this study is cross-sectional in nature and involves a "one-time" measurement. The design structure involves asking the sample population a series of questions on one occasion only. This is in contrast with the longitudinal designs, where the same sample population is revisited on more than one occasion, providing data on various time intervals. With a series of measurement, it becomes more possible to assess the consistency and validity of responses (Ryan, 1995). Time limitation in data collection makes it unfeasible for the researcher to conduct the study in an on-going basis as required in a longitudinal design.

As mentioned briefly in Chapter One, Taman Negara and Kinabalu Park were considered as appropriate locations because they were among the first few national parks to be created in Malaysia and have established themselves as important tourist destinations. Other factors include :

- both of these parks are considered by the Malaysian Tourism Promotion Boards (MTPB) as promising tourism destinations associated with nature-based tourism or ecotourism and are being promoted internationally (Zainuddin, 1995).
- they are considered as important 'add on' destinations in an effort to increase the duration of tourists staying in Malaysia and also to spread tourism development away from the major cities (Peat Marwick, 1993).
- both parks have different management and administration structures. Taman Negara comes under the jurisdiction of the Department of Wildlife and National Parks, whose Director-General reports to the Minister of Science, Technology and the Environment, under the control of the federal government. Unlike Taman Negara in Peninsular Malaysia, Kinabalu Park in the state of Sabah, East Malaysia comes under the jurisdiction of Sabah Parks Board of Trustees. The Board of Trustees is responsible to the Ministry of Tourism and Environmental Development, which is under the control of the state government. The implications of the different management and administration structures will be examined further in Chapters 6.
- the arrangement or the means of providing facilities and services, related to accommodation, food, and souvenir shops are different in both parks. In Taman Negara, the concessionaire responsible for providing them is Taman Negara Resort (TNR), a subsidiary of Pemas Overseas Union Enterprise Sdn. Bhd. and managed by the Singapore Mandarin International (SMI) Hotels and Resorts. In Kinabalu Park, the concessionaire is the Park Staff Co-operative (KOKTAS), in which the members and share holders are restricted to the staff of Sabah

Parks, and where the majority of the staff in Kinabalu Park are local communities living around the park.

- with the formation of national parks, the local communities no longer have free access to the natural resources in the parks. It is necessary therefore to look at how they have come to terms with such restriction and how they perceive the impacts of tourism development.

The two case studies also demonstrate how the role of national parks in Malaysia has evolved, where in the early days they were initiated predominantly for conservation purposes, with restricted number of visitors mostly locals, and limited services and facilities. The aggressive promotion of tourism by the government and the upsurge of interest in nature-based tourism are some of the factors which are responsible for the present high number of foreign and local visitors to the park.

5.3 RESEARCH OBJECTIVES AND PROPOSITIONS

National parks are required to continue upholding the dual objectives of conservation and providing opportunities for visitors to enjoy its natural resources. Understanding the characteristics, needs and preferences of visitors will assist the development of management strategies that is compatible to visitors and the conservation objectives of the park.

In developing countries, the success of tourism in national parks is often dependent on the support and co-operation granted by local communities who have traditionally been dependent on the forest for their livelihood. Since national parks are totally protected areas, they no longer have free access to park's resources and their views will help in understanding the benefits they perceived in tourism development.

This study is conducted to achieve the following objectives :

1. To investigate the socio-demographic profile of visitors to Taman Negara and Kinabalu Park;
2. To examine visitors trip characteristics and identify how these characteristics differ among local and foreign visitors;
3. To examine foreign visitors socio-demographic characteristics, trip characteristics, sources of information and the importance of protected areas, and determine if these attributes differ among visitors from different regions;
4. To evaluate visitors perception of park's facilities and services, and determine if differences in perception exist between local and foreign visitors;
5. To investigate visitors perception on the charges of park's facilities, services and user fees, and determine if differences in perception exist between local and foreign visitors;
6. To explore the economic, environmental and socio-cultural impacts of tourism as perceived by the local communities;
7. To examine the views of park managers on issues related to tourism management; and
8. To examine policies and recommend strategies which could improve the effectiveness of tourism management in national parks.

In order to achieve the above objectives, nine propositions were put forward.

1. Some socio-demographic characteristics can be associated with local and foreign visitors.
2. Some trip characteristics can be associated with local and foreign visitors.
3. Some socio-demographic and trip characteristics can be associated with foreign visitors from different regions.

4. Foreign visitors to the park visit Malaysia because of its protected areas.
5. Local and foreign visitors placed different degree of importance on visitor information/interpretation services.
6. Differences in the degree of satisfaction exist between local and foreign visitors on certain identified services, facilities and features of the parks.
7. Local and foreign visitors placed different evaluation on the charges imposed on services, facilities and user fees.
8. Some socio-demographic characteristics of the local communities can be associated with different occupations.
9. Local communities employed in different sectors placed different evaluations on the impacts of tourism.

Data Collection

There are generally two broad methods in the collection of data, i.e. qualitative and quantitative (Table 5.1). Qualitative methods often yield general descriptive information, seeking concepts, meanings, ideas, insights, understandings and new perspectives (Bullock, 1993; Ryan, 1995). Peterson (1994) sees qualitative research as the foundation on which strong, reliable research programs are based and is often the first step in a research programme to uncover motivations, reasons, impressions, perceptions, and ideas that relevant individuals have about a subject of interest. Qualitative research often involve in-depth, open ended interviews, unstructured observations, and focus group. Although the sample size is small, it often provides an extensive amount of information from the comments of respondents.

Quantitative methods, however yield discrete, presumably easily measurable information that can be interpreted through the use of statistics. It is often associated with self-administered questionnaire and close ended or

structured interviews. The main aim of quantitative research is to obtain important but limited information from each respondent, but the sample is often large in order to draw inferences about the population at large (Peterson, 1994). Quantitative methods deal with the quantification of respondents' behavioural and personal characteristics and is concerned with describing and measuring concepts or variables. By using quantitative research, the conceptual approaches to problem solving are explicit and fixed, using an agreed tool for measuring. Statistical tests are usually employed to verify whether a particular relationship, or the differences between groups are significant.

Both methods have their strengths and weaknesses and Table 5.1 shows the comparison between quantitative and qualitative methods. Very often different methods are associated with different research designs, however increasing number of researchers believe that both methods are valid, complementing each other, yet both having different objectives and problems (Ryan, 1995). The guiding principle is therefore, regardless of the perspective, is to select methods which can best provide answers and explanation to the research questions and objectives.

Furthermore, increasing number of researchers are advocating the use of multiple methods or triangulation to understand more fully the phenomenon under study (Bullock, 1993). Research designs seeking to use both approaches often have the advantage of confirming the validity of the questions being posed, or to assure that all important variables within a situation have been identified (Ryan, 1995).

In view of the objectives of the study, it was felt that triangulation is a more appropriate approach. Taking into consideration the difficulties and the wide range of issues being investigated, the triangulation approach will help in obtaining a better understanding of the overall situation and also identify areas

Table 5.1 Quantitative and Qualitative Paradigm Assumptions

Assumptions	Question	Quantitative	Qualitative
<ul style="list-style-type: none"> • Ontological 	What is the nature of reality?	Reality is objective and singular, apart from the researcher.	Reality is subjective and multiple as seen by participants in a study
<ul style="list-style-type: none"> • Epistemological 	What is the relationship of the researcher to that researched?	Researcher is independent from being researched.	Researcher interacts with that being researched
<ul style="list-style-type: none"> • Axiological 	What is the role of values?	Value is free and unbiased, arguments based on evidence	Value is laden and biased, arguments influenced by values
<ul style="list-style-type: none"> • Rhetorical 	What is the language of research?	<ul style="list-style-type: none"> • Formal • based on set definitions • impersonal voice • use of accepted quantitative words 	<ul style="list-style-type: none"> • informal • evolving decisions • personal voice • accepted qualitative words
<ul style="list-style-type: none"> • Methodological 	What is the process of research?	<ul style="list-style-type: none"> • deductive process • cause and effect • static design - categories isolated before study • context - free • generalisations leading to prediction, explanation, and understanding • accurate and reliable through validity and reliability 	<ul style="list-style-type: none"> • inductive process • mutual simultaneous shaping of factors • emerging design - categories identified during research process • context - bound • patterns, theories developed for understanding • accurate and reliable through verification

Source : Bullock (1993)

where further investigation of the issues could usefully be made. The reasons for the choice of a triangulation approach are as follows :

- The quantitative survey method will be administered on the visitors in the parks. The survey permits the study to be conducted on a sample from the population. Based on statistical inferences, the probable error of a sample reporting certain results is readily established. Furthermore, the survey allows for standardisation of information since the same questions are asked to every visitor.
- The local communities survey is a combination of both, the qualitative and quantitative method. It is based on structured interview with an open ended question at the end of the interview. The interview also provides the opportunity for the researcher to have direct observation on the behaviour and attitude of the locals being interviewed, while the open ended question allows the researcher to obtain additional information not covered by the structured questions.
- The qualitative approach is being adopted in interviewing the two park managers. A fairly open discussion is encouraged, guided by a list of questions to obtain information about particular aspects of tourism development.

Data Collection Method

Three methods of data collection were utilised to obtain data from a variety of sources. The first method is the survey and the unit of analysis are the visitors in the park. The survey is basically the process of asking questions to people who are believed to have the necessary information (Churchill, 1988).

The survey method was considered to be appropriate because among the main purposes of the research are to examine the demographic profile of visitors and to describe and explain statistically how these demographic variables have an influence on visitors' trip characteristics, their perception of services, facilities

and user fees. By utilising statistical techniques, the survey method has the advantage of assessing the characteristics of the population from a small representative sample group. The data collection instrument is a self-administered questionnaire distributed to visitors.

The second method of data collection is the interview and the unit of analysis are the local communities. An interview is a face-to-face interpersonal role situation in which one person, the interviewer, asks a person being interviewed, the respondent, questions designed to obtain answers pertinent to the research problem (Kerlinger, 1986). Structured interview with an open ended question at the end will enable the researcher to evaluate how the locals perceived the economic, environmental and social impacts of tourism. Interview, compared to the other data collection techniques, has the advantages of allowing greater depth and probing; high response rate; provides information on non-verbal behaviour; enables spontaneity and more appropriate for revealing information about feelings and emotions (Pizam, 1994). Interview was considered the best procedure to obtain information from a population that might experience difficulties in answering questions related to evaluating the impacts of tourism.

The third method of data collection is the semi-structured interview with park managers. This method allows the researcher to gain an overall picture of the park's development. It also provides flexibility and opportunity for the researcher to probe and clarify other related issues, and to seek their views on the trends of development which are appearing in the parks.

Questionnaire Development

A copy of the questionnaire used in the visitor and local community surveys, and interviews with the park manager is reproduced in Appendix D, E and F respectively. The first part of the questionnaire development will discuss

the visitor questionnaire while the second part is related to local community and the third part will briefly describe the questions for park managers.

Visitor Questionnaire

The visitor questionnaire (Appendix D) was designed to be as respondent friendly as possible to avoid imposing too much time upon visitors. The questionnaire was divided into three main sections: Section A, Section B and Section C. Clear instructions were phrased at the beginning of the questionnaire and consecutively at the beginning of each section.

- Section A: Socio-demographic Characteristics

This section gathers information on visitors socio-demographic background such as gender, age, occupation, educational level, income and country of residence. It addresses the first objective of the study and is associated with proposition one.

- Section B: Trip Characteristics of Foreign Visitors

This section is specifically for foreign visitors, where questions asked are related to respondents overall visit to Malaysia, such as: is it their first visit to Malaysia, purpose of visit, number of days in Malaysia, sources of information used in planning their trip, the importance of protected areas in influencing their visit, and if they have visited other protected areas and the number of days spent in these areas. This section, part of the previous section (Section A) and next section (Section C) will discuss the third objective of the study and are related to propositions three and four. The third objective will investigate the socio-demographic and trip characteristics of foreign visitors from different regions. It will also provide an insight on the overall importance of protected areas in influencing visitors decision to visit Malaysia. The chi-square (χ^2) test was

applied to determine the presence of association among the visitors from different regions with the identified socio-demographic and trip characteristics.

- Section C: Trip Characteristics, Facilities, Services and User Fees

This section consists of a wide range of questions, ranging from: visitors trip characteristics; perceptions of visitor facilities and services; evaluations on the charges of facilities and user fees; visitors overall expenditure; and experience in the park. It will examine the second, fourth and fifth objectives of the study and is associated with propositions two, five, six and seven. The chi-square (χ^2) test was again applied to detect the presence of association and the t-test to compare statistically the differences in the mean values.

In many of the questions, different forms of 5-point Likert scale were utilised. At the end of the section, an open-ended question was put forward to obtain comments and suggestions from visitors on how to improve the quality and experience of their visit.

Local Community Questionnaire

The local community questionnaire (Appendix E) will solicit information required to achieve the sixth objective of the study. The first part of the questionnaire gather details from the head of households on a number of socio-demographic variables such as gender, age, race, marital status, level of education, number of children, occupation, household income, years of residency and ownership of property. It is associated with proposition eight which will examine if there is a relationship between the socio-demographic characteristics and the type of occupation.

The second part of the questionnaire is related to the perceptions of local communities on the economic, environmental and social impacts of tourism. It is associated with proposition nine which will investigate if local communities who benefited directly from tourism placed different evaluations on the impacts of tourism than those who did not. Some of the questions used here were being adopted from the study by Pizam, Milman and King (1994). Respondents were asked to indicate their level of agreement along a five-point scale: 1 (significantly improve); 2 (improve); 3 (about the same); 4 (worse); 5 (significantly worsen). The economic impact of tourism perceived by the local community is measured in terms of employment opportunities, income level, standard of living, inflation, and infrastructure and facilities. The environmental impact is seen in terms of land clearing, water quality, traffic and wildlife. The social impacts is measured in terms of courtesy and hospitality, local culture, religious values, morality, sexual permissiveness, alcoholism, drug abuse and crime. Analysis of variance (ANOVA) was used to see if there are significant differences in the perceptions of local communities between different villages on the impacts of tourism.

Park Manager Questionnaire

Interviews with park managers attempt to solicit information related to tourism management in both parks. Questions such as manpower requirement, training, source of funding, the structure of user fees, information on visitors, impacts of tourism and park planning were put forward to the managers (Appendix F). All the questions are open-ended, allowing the researcher the flexibility of obtaining any additional information.

5.4 SAMPLING PROCESS

Although ideally, one would like to study the whole population, it is often impossible, unrealistic, extremely expensive and time consuming to collect data from all the potential units of analysis involved in the research. It is therefore normal to have empirically supported generalisations based on information obtained from a relatively small sample. The objective of sampling is therefore to make inferences about the population based on the information obtained from the sample. A sample is a smaller set of elements taken from a population and is considered to be representative of that population (Kerlinger, 1986).

Sampling Design

The sampling design is the method in which the researcher used to select the sample for the study. Sampling design can be divided into two major categories: probability sampling and non-probability sampling. In probability sampling, each element in the sample population has an equal chance of being selected. Nachmias and Nachmias (1992: 174) defined probability sampling as when, 'one can specify for each sampling unit of the population the probability that it will be included in the sample'. Probability sampling can be subdivided into four major categories: simple random sampling; systematic sampling; stratified sampling and cluster sampling.

Simple random sampling is the basic form of probability sampling. It is a method of drawing a sample of a population so that each element of the population will have an equal chance or probability of being selected (Cannon, 1994). The probability is n/N , where n stands for the size of the sample, and N for the size of the population (Nachmias & Nachmias, 1992). The simple random sampling method was utilised in the visitors' survey, where questionnaires were distributed by park rangers to every visitors to the park. More details on this will be discussed in the section on the administration of field work.

In the non-probability sampling “there is no way of specifying the probability of each unit’s inclusion in the sample, and there is no assurance that every unit has some chance of being included” (Nachmias & Nachmias, 1992: 175). Non-probability sampling cannot claim representativeness since it does not depend upon chance as a selection procedure and cannot accurately control the probability of a unit being selected. However, this weakness can be controlled, to some extent, by using knowledge, expertise, and care in selecting samples (Kerlinger, 1986). There are three major categories of the non-probability sampling: convenience sampling, purposive/judgmental sampling and quota sampling.

The main purpose of quota sampling is to ensure that the sample is representative by selecting elements in such a way that the proportion of the sample elements possessing a certain characteristic is approximately the same as the proportion in the population (Churchill, 1988). Quota sampling is frequently based on demographic data such as geographical location, age, sex, education and income (Aaker, Kumar, & Day, 1995). By representing the population with respect to the demographic characteristics, the biasness of the information obtained from quota sampling may be reduced. The quota sampling is the sampling design being utilised in the interviews with the local communities. The section on the administration of field work will further discuss this issue.

Sample Size

Sample size is the appropriate number of sampling units to be included in a sample. The determination of sample size are normally based on three factors: the specified allowable error (B) (also known as sampling error or error margin), the level of confidence (z), and the population (P) (Tull & Hawkins 1990).

In this study, the sample size for visitors is determined by using the formula suggested by Ryan (1995: 178) :

$$n = \frac{NPq}{\left[\frac{(N-1)B^2}{z^2} \right] + Pq}$$

where n = sample size,
 N = population,
 P = population proportion,
 $q = 1 - P$
 B = allowable sampling error
 z = z score based on desired confidence level

The allowable sampling error (B) is a statistical measure which indicates how closely the sample results reflect the true values of a parameter. In this research, the level of allowable sampling error (B) was set at 3 % (0.03). The allowable error (B) measures how close we want our estimate to be from the actual mean. Hence, the smaller the allowable error, the larger the sample size required for the study.

The level of confidence (z) specifies the measures of confidence level around the true mean. Confidence level (z), measured in percentages, is positively related to sample size. The sample with a z -value of 95% is larger than that of a 90%, *ceteris paribus* (other things being equal). The following values are used to calculate the sample size :

$N = 36,922$ (Taman Negara, Table 6.1); and

$200,907$ (Kinabalu Park, Table 6.4)

$P = 0.9$

$B = 0.03$

$z = 1.96$

Substituting N with 36,922 (Taman Negara) and 200,907 (Kinabalu Park), the sample size required for the study are 380.24 and 383.42 respectively.

For the local communities, the non-probability sampling procedure utilising the quota method was used. Twenty percent of the households in every identified village will be interviewed. This was considered sufficient to represent the views of the local communities since many households in the various villages have similar characteristics.

Administration of Fieldwork

The field work for data collection in this study was carried out from the beginning of Jun 1995 to the end of August 1995. During the three-month period, the researcher was provided with staff accommodation at both national parks. The fieldwork involved a number of stages. These are described below.

Translation of Questionnaire

The data collection instruments, self-administered questionnaire for the visitors survey and structured questionnaire for the interviews with local communities were translated to Bahasa Malaysia (the Malaysian language) before they were administered to all local visitors in the parks and local communities living around the park. The translation was done by the researcher with the help of two university lecturers who are competent in both languages.

Pilot Test

A pilot test was conducted using both the English and Bahasa Malaysia version of the visitor's questionnaire with 40 students from Universiti Teknologi Malaysia. Another 20 students participated in the local communities survey. All the responses were then checked and analysed. Participants in the pilot test were also requested to suggest

means of improving the questionnaire in order to increase understanding. Questions which were found to be ambiguous were then reworded.

The Actual Study

a. Visitors Survey

An introduction letter from the researcher (Appendix D) was included with the questionnaire. Questionnaires for Taman Negara were distributed by park rangers at the Kuala Tahan complex during the registration of visitors. Although permit for visitors are issued at Kuala Tembeling, visitors are required to report with the Department of Wildlife and National Park (DWNP) upon their arrival in the park. Visitors were asked to return the completed questionnaires at the registration desk before leaving the park.

For visitors in Kinabalu Park, two methods were utilised in the distribution of questionnaires. The first method of distribution was by park rangers at the reception office. Registration of overnight visitors and those intending to climb Mount Kinabalu are conducted at the reception office. Arrangements were made with the park authorities for the park rangers to distribute the questionnaires to every visitors. The second method was the 'visitor-intercept' approach (Jurowski, Uysal, William & Noe, 1995: 76) at the point of entry for day visitors, since they are not required to register at the reception office. Day visitors mainly consist of locals and foreign visitors on package tours. All visitors were requested to return the completed questionnaire to the reception office before leaving the park. Table 5.2 demonstrate the details in the number of questionnaires distributed and returned in Taman Negara and Kinabalu Park.

The number of returned questionnaires in Taman Negara was 506. Of the total, 22 were rendered unusable due to errors and/or missing

Table 5.2 Respondents for Visitors Survey

Location	Distributed	Returned	Usable	%
• Taman Negara	1595	506	484	30.3
• Kinabalu Park	1977	644	562	28.4

responses. There was a final total of 484 usable questionnaires ready for analysis representing a response rate of 30.3 percent. The final total of 484 exceeded the sample size of 380 which was required for the study in Taman Negara.

For Kinabalu Park, the total number of returned questionnaires was 644. However, 82 were considered as unusable, leaving a final total of 562, denoting a response rate of 28.4 percent and exceeding the required sample size of 383. The additional responses in both cases therefore increases the accuracy of the population estimates and representativeness of the study.

b. Local Communities Survey

Interviews with local communities were conducted at villages in the vicinity of the park headquarters in Taman Negara and Kinabalu Park. In Taman Negara, the researcher was fortunate to have the assistance of two rangers and a research assistant, and in Kinabalu Park the help of three research assistants, two of which were from the local communities.

The aims of the study were first explained to both the rangers and research assistants, followed by the understanding of the research questions and the appropriate way of approaching the local communities. They were asked to speak to the adult male or female head of the

household. They were also appraised for the need to conduct the interviews in an impartial manner and to seek a cross-section of people in terms of age and gender. Visits were made to households in the day and after 6.00 p.m. to obtain a balance between day and night workers.

The interviews with the local communities living in the vicinity of Taman Negara was over a seven days period. Table 5.3 shows the number of households interviewed in the respective villages.

Table 5.3 Local Community Responds

TAMAN NEGARA		KINABALU PARK	
Villages	households interviewed	Villages	households interviewed
• Kg. Tahan	32	• Kiau Nuluh	21
• Seberang Ara	25	• Kiau Teburi	23
• Kuala Tekah	10	• Kinaseraban	7
• Kg. Padang	9	• Bundu Tuhan	33
• Kg. Belebar	7		
• Kg. Teresek	5		
Total	88	Total	84

In Kinabalu Park, the number of households interviewed in the villages surrounding the park headquarters is demonstrated in Table 5.3. The interviews were conducted over an eight day period. Research assistants from the local communities were necessary due to:

- the elderly members of the local communities often only understand the local 'Dusun' dialect, with which the researcher is not familiar. However, the younger generation that have attended school are able to communicate in Bahasa Malaysia, the national language.
- the remote location of some of the houses, accessible only by foot.

Therefore the knowledge of the local research assistants with the surroundings were helpful in conducting the interviews.

Each questionnaire took between 15-30 minutes to complete. The survey was very well received, with none of the local communities declining to take part.

c. Park Managers Interview

The park manager was requested to fixed a suitable date for the interview. The questionnaire was given to the park manager prior to the actual interview since some of the questions may require certain specific information. There were certain unforeseen problems with the park manager of Taman Negara, which will be discussed further in Chapter Seven. However, the interview with the park manager of Kinabalu Park was very successful, providing valuable insights on the management of tourism in Kinabalu Park.

5.5 DATA ANALYSIS

Data obtained from the surveys were analysed using the Statistical Package for the Social Sciences (SPSS for Windows version 6.0). Descriptive and inferential analyses such as frequencies and percentages, measures of central tendencies and dispersions, cross-tabulations, t-tests, ANOVA (F-ratio) and chi-square (χ^2) were utilised. The levels of probability in the t-tests, F-ratio and χ^2 are described based on (Ryan, 1995) suggestion :

- $p \leq 0.05$ significant,
- $p \leq 0.01$ more significant, and
- $p \leq 0.001$ very significant.

Reliability of Data

Several statements in the surveys (Appendix D & E) require respondents to indicate the extent of their support using the 5-point Likert scale. Reliability technique is one of the most widely used techniques by researchers to ensure high reliability of the multi-scale item questions (Churchill, 1979). It is 'the quality of a measuring instruments that would cause it to report the same value in successive observations of a given case' (Babbie & Halley, 1995: 344).

To establish the reliability of the scale, a consistency measurement was conducted before proceeding further with the data analyses. The method used to measure the reliability of the statements is the internal consistency method of Cronbach-Alpha. Using the SPSS reliability analysis, the following final values were observed (Table 5.4).

The Cronbach's alpha values obtained ranges from 0.52 to 0.84 which were considered to posses acceptable levels of internal consistency (Table 5.4). While a coefficient of reliability of 1.0 is considered perfectly reliable, there is no proper rules available on what constitute a reliable measure. The results exceed the minimum standard of 0.5 required for exploratory research (Davis & Consenza, 1988).

Table 5.4 Results of Internal Reliability (Cronbach-Alpha)

Descriptions	Taman Negara	Kinabalu Park
Visitors Survey (Appendix D) • Questions 20, 21, 23, 24, 25,26, & 27	0.8235	0.8490
Local Community Survey (Appendix E) • Question 12	0.5272	0.5481

Some of the results of the chi-square (χ^2) tests should be treated cautiously. For the chi-square results to be valid or accurate, it must have a minimum frequency of at least 1 and cells with an expected frequency of less than 5 should not be more than 20% of the total. This therefore implies that although some of the results have significance levels of association, they are considered to be invalid if they failed to conform to these general rules.

5.6 SUMMARY

This chapter describes the overall approach to the study, presents a discussion of the research design, questionnaire development and sampling process. The study is exploratory in nature, mainly utilising a descriptive research design in data collection and analysis. Taman Negara and Kinabalu Park are utilised as case studies. The two main aims of the study are: to describe the socio-demographic and trip characteristics of visitors to national parks and evaluate their perception on the user fees, services and facilities available in the parks; and to evaluate the perception of the local communities in the vicinity of the park on the various impacts of tourism.

A set of nine propositions were set-up based on the seven objectives of the study. The procedures for analysing the propositions were based on the comparison on the rating of mean scores (t-tests), analysis of variance (ANOVA) which examines the means of subgroups in the local communities, and the chi-square(χ^2) tests to detect the presence of association.

In the visitor surveys, there were 484 and 562 usable questionnaires from Taman Negara and Kinabalu Park respectively. In the interviews with the local communities, there was a total of 88 respondents from 6 villages around Taman Negara and 84 respondents from 4 villages in the vicinity of the Park Headquarters in Kinabalu Park. The following chapter will describe the details of the two case studies areas while chapter seven and eight will present the analysis of Taman Negara and Kinabalu Park respectively.

Chapter Six

PROFILE OF TAMAN NEGARA AND KINABALU PARK

6.1 INTRODUCTION

The first part of this chapter details Taman Negara, the first case study area, and will be followed with the description of the second case study area, Kinabalu Park. It will examine how the parks were initially established, their administration and management structures. It will also look at the growth of tourism and review the various attractions, facilities, services available and the local communities living in the vicinity of the parks.

6.2 PROFILE OF TAMAN NEGARA (TN)

Taman Negara or 'National Park' in English lies in the centre of Peninsular Malaysia, with the boundaries of the park spreading through the states of Pahang, Kelantan and Terengganu (Figure 6.1). The total area of the park is 4,343 square kilometre with 2,477 km² (57%) of the land in Pahang, 1,043 km² (24%) in Kelantan and 853 km² (19%) in Terengganu (Ho, Soepadmo & Whitmore, 1971). Taman Negara is the largest national park in Malaysia, comprising 3% of Peninsular Malaysia's total land area of 130,800 sq. km. and is an important watershed area in the central part of Peninsular Malaysia.

Development of Taman Negara

Taman Negara is considered as one of the oldest forests in the world with an evolutionary history of 160 million years as evidenced by Late Jurassic to Early Cretaceous sandstone plant fossils (Rishworth, 1974 in Yong 1992: 579). It is covered largely with primary lowland rain forest, with hill and montane forests in higher altitudes. There is great diversity of plant and animal species in

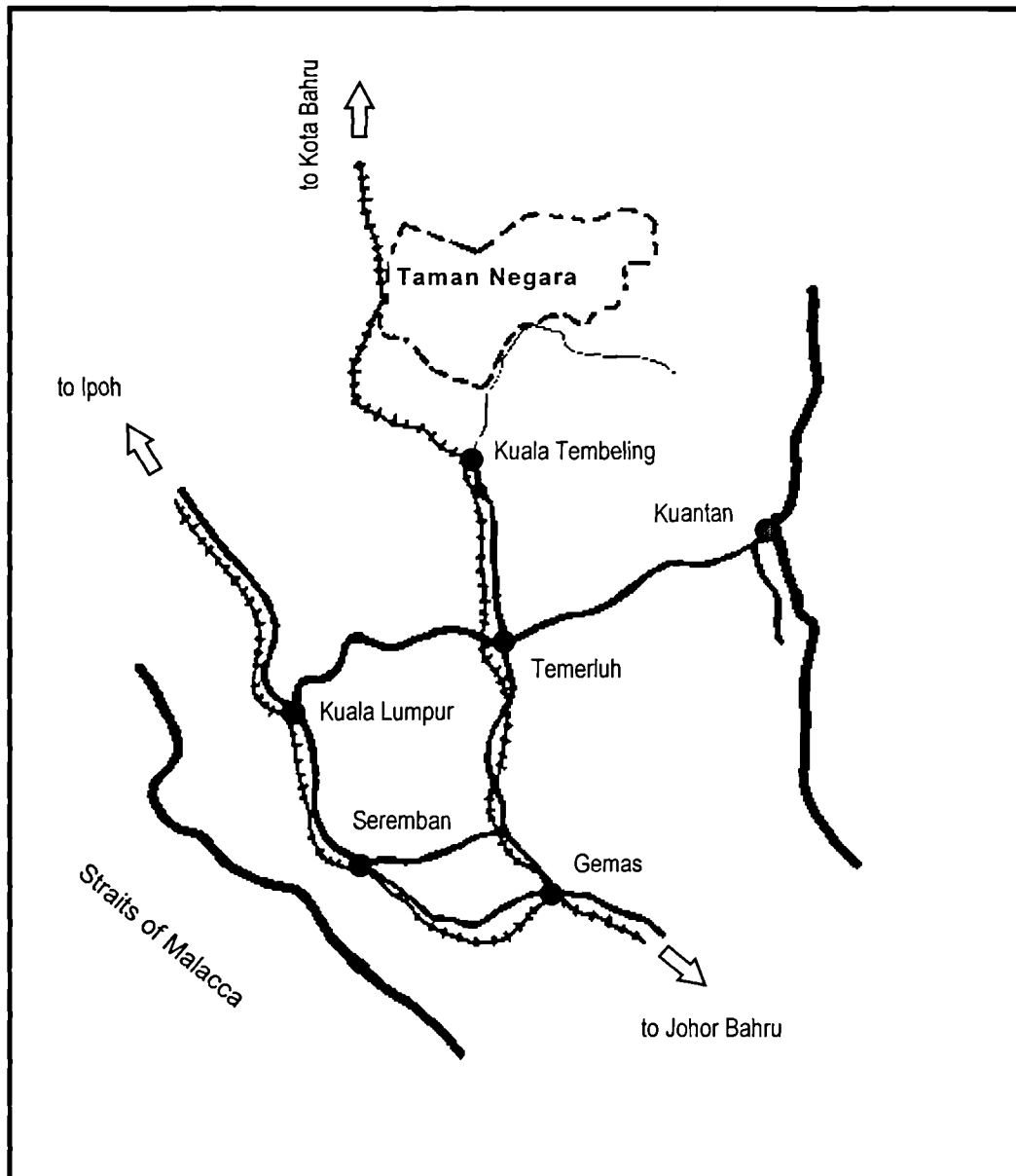


Figure 6.1 Location of Taman Negara

the lowland forest, comprising 60 percent of the endemic species of the entire Sunda Shelf region (Medway, 1971). The Upper Tembeling River Valley on the south-eastern border of the park is an important archaeological site, with a highly developed late Neolithic Culture 3,000 - 4,000 years ago, indicating the possibility of the earliest human settlement in Peninsular Malaysia (Yong, 1992).

Gunung Tahan, which literally means 'forbidden mountain' is the highest peak in Peninsular Malaysia (2,187 m) and is located in Taman Negara (Briggs, 1985: 5). The earliest known exploration to Gunung Tahan was in 1863 but it was not successful. The first successful ascent was during a botanical exploration trip lead by H.C. Robinson, in which four of his Malay helpers made it to the summit on 15 July 1905 (Briggs, 1985).

Establishment and Administration of Taman Negara

As mentioned in Chapter Three, Taman Negara, which was previously known as the King George V Park, was established in 1938/1939 by the recommendations proposed by the Wildlife Commission in 1932 (DWNP, 1987).

The objective of establishing the park as stated under Section 3(i), of the 1939 Enactment is that the :

...Park is hereby dedicated, set aside and reserved in perpetuity in trust for the purpose of the propagation, protection and preservation of the indigenous fauna and flora of Malaysia, and of the preservation of objects and places of aesthetic, historical or scientific interest. (DWNP, 1994: 1)

The main objective of the park is preservation of nature. However, tourism and recreation is allowed provided it does not contribute or facilitate the loss of value to future generations. Tourism as a source of

income reinforces the importance of the preservation objective and increase the consciousness of the need to protect the park against environmental degradation. Tourism development has less adverse impacts on the environment relative to other land uses such as hydro-electric power dams, commercial logging, mining and land clearing.

As mentioned in Chapter Three, the management of wildlife and protected areas (national parks, wildlife reserves and sanctuaries) in Peninsular Malaysia come under the jurisdiction of DWNP (Department of Wildlife and National Parks), under the responsibility of the Ministry of Science, Technology and the Environment (Figure 6.2).

Taman Negara is a tristate park being administered by DWNP, under a common but three different enactments, i.e. Pahang (Phg. En 2/1939), Terengganu (Tr. En 6/1358), and Kelantan (Kn. En 14/1938) (GOM, 1980). The primary aim of the park is the preservation of the natural environment, but provision is also made for research work, educational activities, and public recreation (DWNP, 1987).

However, provisions under the National Land Code (1965) clearly permit the revocation of reserved land such as Taman Negara, and the power of such revocation rest solely on the State Commissioner of Land and the State Authority (Kiew, 1982). In the state of Terengganu, the eastern region of the park has been partially submerged by the Kenyir Dam (DWNP, 1987). Other actions include the Tembeling Dam Project initiated in 1971, which will involve the flooding of a substantial area in Taman Negara. However, the plan was shelved in 1986 after prolonged pressure from the public. The change in the decision was significantly influenced by tourism activities in the park.

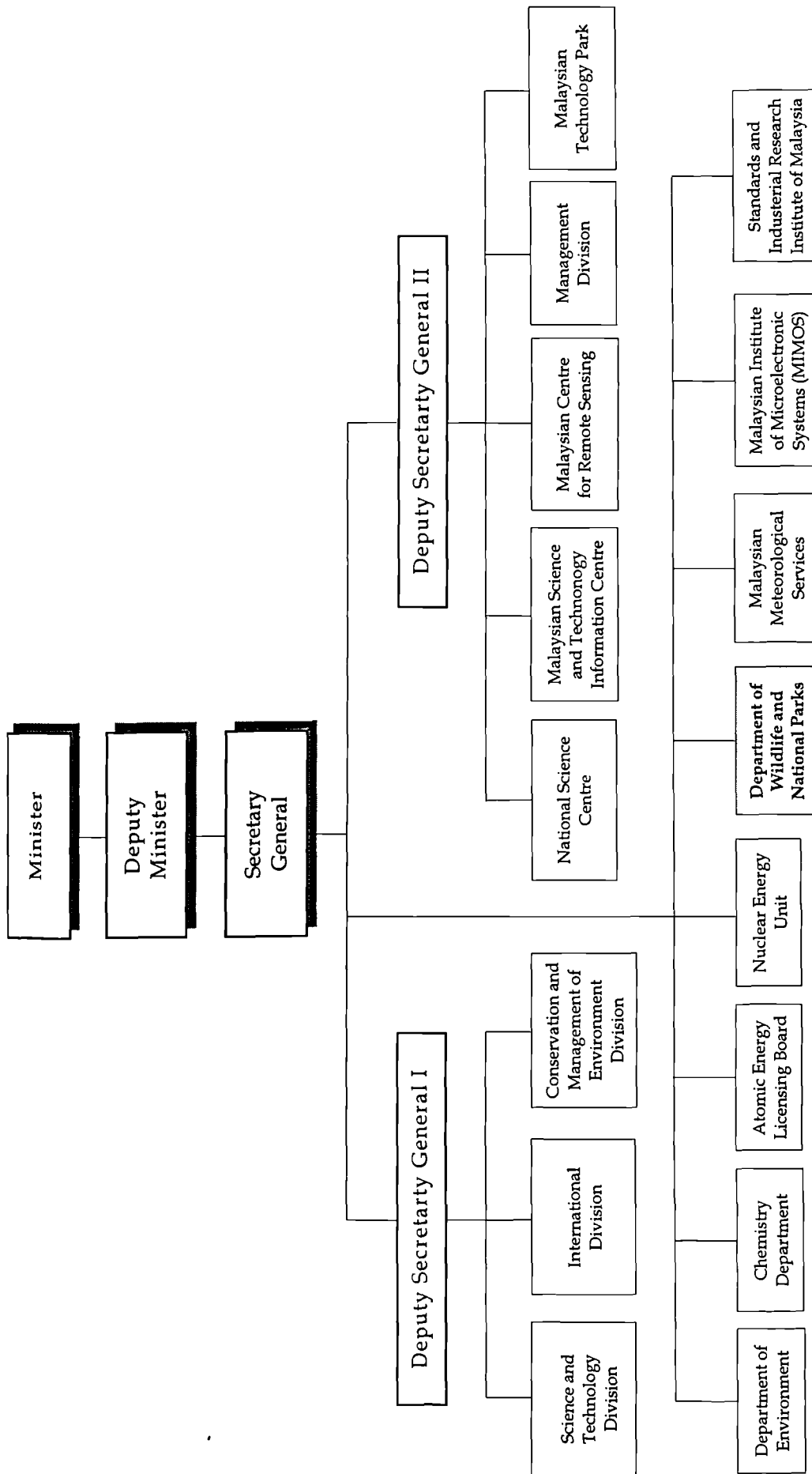


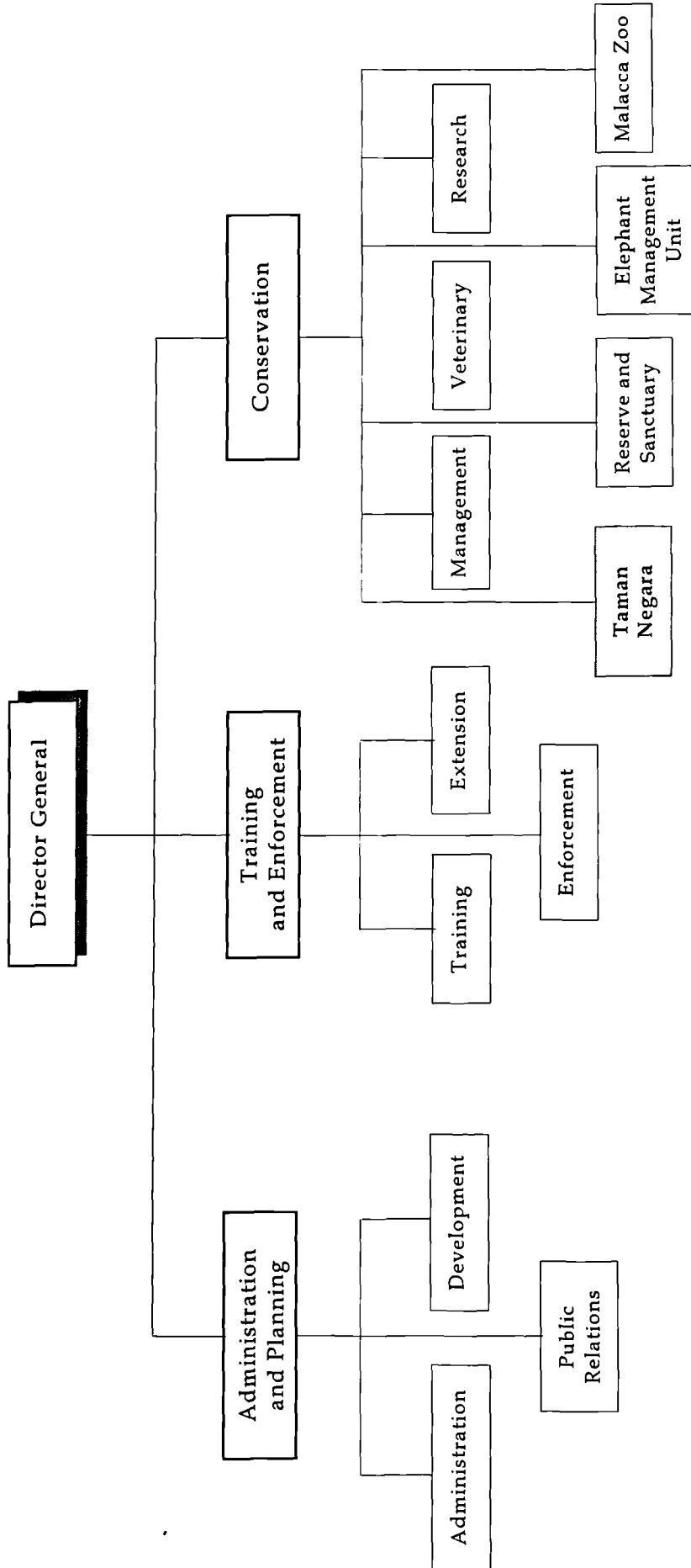
Figure 6.2 Organisation Chart of Ministry of Science, Technology & Environment

Source : MAMPU (1994: 269)

The organisational structure of Taman Negara is shown in Fig. 6.3. The Director-General for Wildlife and National Parks is responsible for its overall administration and the formulation of policy associated with the management of the park. The Superintendent of Taman Negara is responsible for the everyday running of the park, which 'is basically a housekeeping function related to personnel management, financial management, upkeep of Park installations and supervision of its recreational and visitor activities' (DWNP, 1987: 6).

Although Taman Negara has existed since 1939, its first master plan was only formulated by DWNP in 1987 with the collaboration of a Review Committee comprising representatives from the Tourist Development Corporation, Malayan Nature Society, World Wide Fund for Nature and the Malaysian Mountaineering Association. There was an :
...urgency for such a master plan be drafted because the park is moving into a period of more intense development some of which will be in the hands of the private sector...where the lack of a Master Plan for long term Park development was revealed as an almost political weakness. (DWNP, 1987: 1)

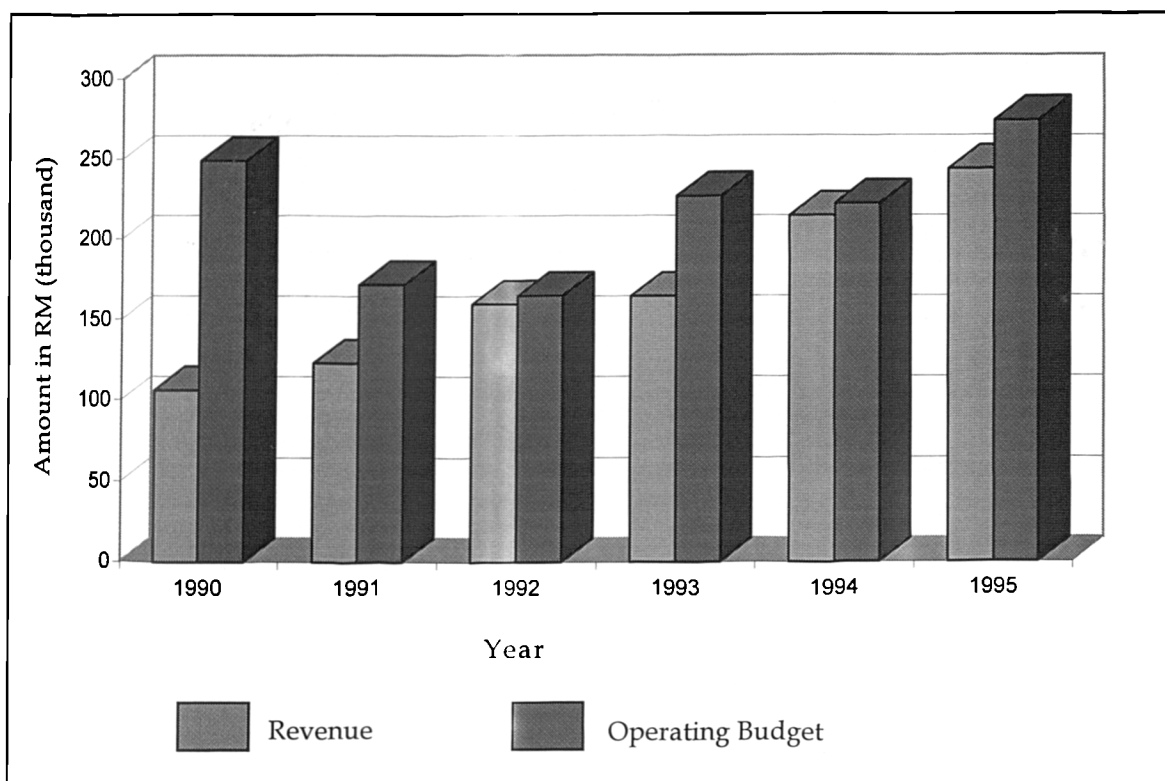
The management plan laid out the development and management strategies for the park. The main strategy is to optimise the recreation experience at a carrying capacity that would still preserve the environment. While recognising the importance of tourism and the increasing number of visitors to the park, the plan stress that recreation and other uses of the park are secondary to preservation of its habitats and ecosystems. All visitors must first be issued with entry permits before entering the park. It also suggested the development of additional visitor centres at other areas to ease the pressure at the Kuala Tahan complex.



Source : MAMPU (1994: 282)

Figure 6.3 Organisation Chart of Department of Wildlife and National Parks

Zoning of the park was proposed in the fifth Malaysia Plan (1985-90). Under this system, the park is zoned into high-density use, recreation, general, historical and primitive/natural areas (GOM, 1986). The high-density zone is restricted at the very edge or border of the park. The facilities in this zone, i.e. Kuala Tahan, include visitor accommodation, restaurants, an interpretative centre and park headquarters (Figure 6.7).



Source : DWNP (1995, 1996)

Figure 6.4 Revenue and Expenditure of Taman Negara Pahang

Income

Figure 6.4 shows the income for Taman Negara, which is mainly through the collection of user fees. However, fees collected from entry permits, fishing permits and camera licences are credited to the state

government while fees charged for the use of recreational facilities such as hides, canopy walkway and boat ride are channelled to the Federal government (DWNP, 1995). The Federal government also receive a nominal fee (1.5 % of annual gross earnings) from Taman Negara Resort (TNR), the private concessionaire in Taman Negara (Rose, 1995). The total fees collected in 1995 was RM167,823 of which RM25,682 goes to federal government while RM142,141 goes to state government. The operating budget illustrated in Figure 6.4 include the expenditure on administration and management of Taman Negara, but exclude the expenditure on staff salaries and allowances (DWNP, 1994, 1996).

Tourism in Taman Negara

The initial visitors to Taman Negara were mostly researchers, specific interest nature lovers and back country enthusiasts. Its remote location and very limited facilities made the park attractive only to certain segment of visitors. Presently, with improved infrastructure and visitor facilities, the Park attracts a wide range of visitors, both local and foreign.

Growth of Tourism

The development of tourism in Taman Negara has generated many economic benefits. At the national level, it has generated foreign exchange earnings and at the local level it has stimulated the rural economy, creating employment and infrastructure improvements. Wan Sabri and Sam Shor (1994) estimated that in 1990 the total expenditure of foreign visitors in Taman Negara was close to RM6.53 million, and in the same year 270 jobs were created by the tourism sector.

Although Taman Negara covers an extensive area in three different states, visitors and tourism facilities are concentrated at the Kuala Tahan complex in Pahang, where the park headquarters is located (Figure 6.5).

The government first realised the potential of Taman Negara as an attractive tourism destination for both foreign and local visitors in the late 1960s and was expected to take the leading role in the initial development of tourism facilities. The early accommodation in the park was basic thatch and 'kulit terap' variety and funds were obtained continuously from the five-year Malaysia Plans for the development and improvement of accommodation facilities (Musa, 1982).

In the First Malaysia Plan, RM70,000 was used for the renovation of the Old Rest House and in the Second Malaysia Plan RM500,000 was utilised for the chalets, staff quarters and a rest house at Kuala Tahan. Under the Third Malaysia Plan, RM2.779 million was utilised to increase and improve accommodation facilities, while in the Fourth Malaysia Plan \$3.85 million was allocated for additional accommodation, restaurant and architecturally-designed hides at the salt-licks (Musa, 1982).

Privatisation of facilities in Kuala Tahan was first carried out in 1987. The main objective of the privatisation is to reduce government's expenditure and to provide an opportunity for the involvement of private sector. The first privatisation exercise was not successful, but in 1990 a second attempt was made, awarding a 20 years lease to Taman Negara Resort (TNR), a subsidiary of Pemas Overseas Union Enterprise Sdn. Bhd. and managed by Singapore Mandarin International Hotels and Resorts (SMI). TNR is required to develop, operate and manage the accommodation facilities on a 15 acres site in the park and is also responsible for the management of the river transportation (Yong, 1992). TNR had invested RM15 million to develop and upgrade the visitor facilities at Kuala Tahan which includes accommodation, reception office, restaurants, and a multipurpose hall (DWNP, 1994). In 1993, TNR was further awarded to manage lodges at Kuala Trenggan and Kuala

Kenyam (Figure 6.7). The park is normally closed during the monsoon season (December and January), but recently due to the request of TNR, the park is open all year round.

Among the earliest visitor figures is that of 1969, where there were 516 visitors (DWNP, 1987), increasing steadily to 9,555 visitors in 1985 and 47,272 visitors in 1996 (Table 6.1). Although Malaysia in 1991 had experienced a drastic drop in the number of foreign visitors (-21.47%, refer to Table 2.2) due to the Gulf war and the effect of recession, there was an increase of foreign visitors to the Park (13.4%). Europeans top the list of foreign visitors, where in 1994 there were 3,814 visitors from Germany, 2,381 from Singapore and 2,200 from Britain (Norhasiyati, 1995).

Table 6.1 Visitors to Taman Negara 1985/96

Year	Number of Visitors			Climbers to summit
	Local	Foreign	Total	
1985	5,817	3,738	9,555	-
1986	7,537	4,930	12,467	-
1987	5,210	5,910	11,120	-
1988	5,134	6,876	12,010	-
1989	5,408	8,832	14,240	-
1990	6,903	10,444	17,347	1,334
1991	7,932	11,846	19,778	1,216
1992	11,889	13,086	24,975	1,318
1993	15,400	15,663	31,063	1,408
1994	17,499	19,423	36,922	1,000
1995	21,242	22,199	43,441	699
1996	23,803	23,469	47,272	833

Source : DWNP (1995, 1996)

DWNP (1987) classified visitors into two broad categories: the low budget visitors who are usually adventurous in nature and the affluent visitors,

...these two groups perceive what is offered by the Park differently. Affluent visitors anticipate a high standard of accommodation. The resthouse and chalets with minimal facilities are often not up to their expectations...In contrast, low budget visitors are generally surprised to find well developed recreational facilities which they had not expected.

(DWNP, 1987: 48)

Accessibility

Taman Negara, located at 4° 40'N/102° 30'E, is accessible from different entry points (Figure 6.1). However, the main entry point for visitors is the Kuala Tembeling-Kuala Tahan route. Kuala Tembeling is the starting point for the 3-4 hours boat ride to Taman Negara and is accessible either by road or rail from major towns. Boats depart at 0900 and 1400 hrs daily for the upstream journey along Sungai Tembeling to Kuala Tahan, the first point of call for visitors to the Park (Figure 6.5). A jeep track from Jerantut to Kuala Tahan has been constructed but it is mainly used by locals living in the area.

Kuala Koh in the north and Relau in north-western part of the park, are the two additional entry points for visitors. However, both sites provide basic facilities and are visited by local visitors and a small number of foreign visitors.

Attractions

Several attractions are available within easy reach from the Kuala Tahan complex. This include rapids along Tembeling River, cascading

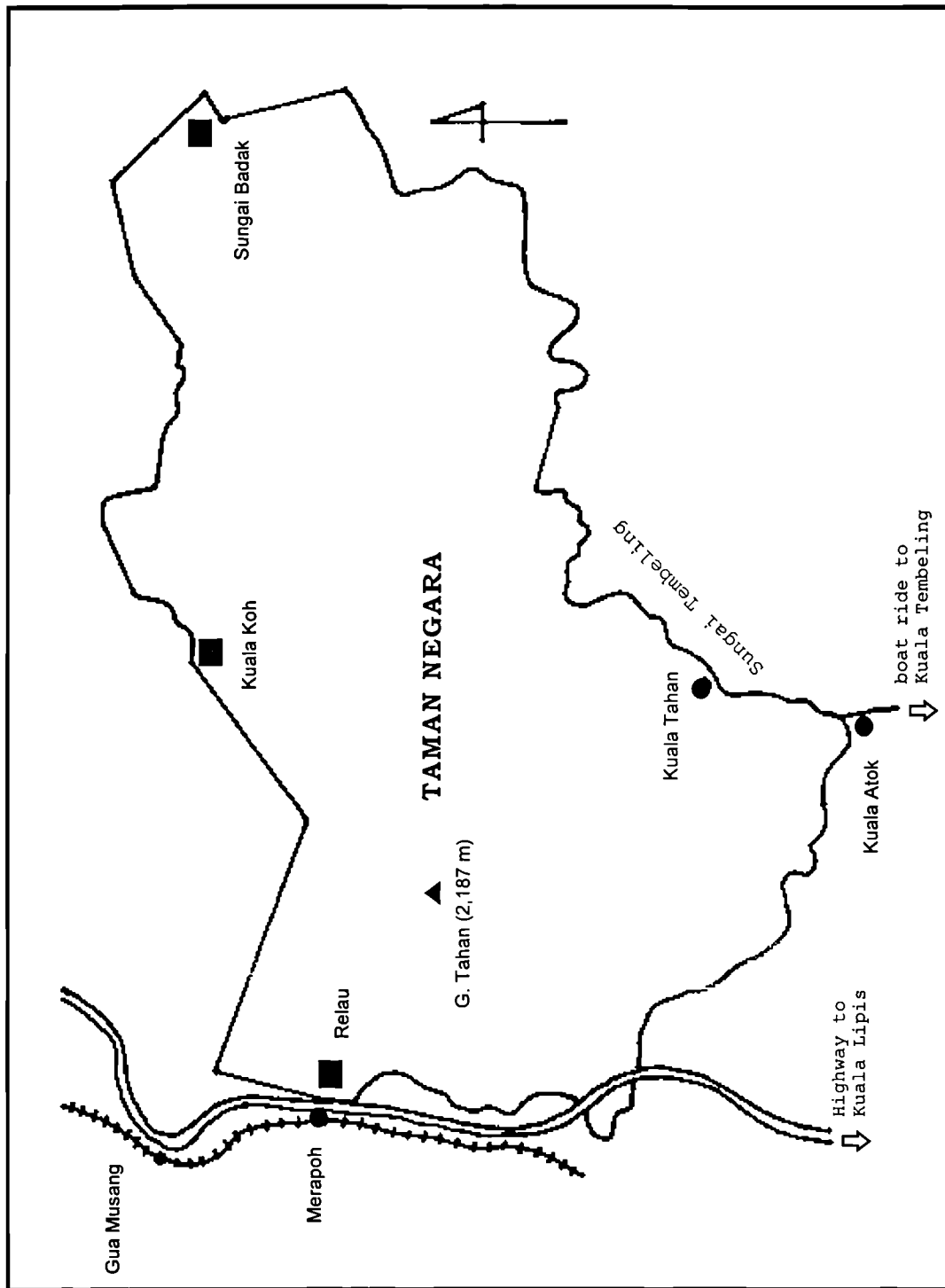


Figure 6.5 Taman Negara

waterfall at Lata Berkoh, canopy walkway, limestone caves of Gua Telinga and network of trails system. Activities undertaken by visitors while in the park include trail walking, boat ride, swimming, fishing, caving, bird watching, wildlife watching, botanical and trekking to the summit of Mount Tahan.

Lata Berkoh, is the most popular attraction with 13,567 visitors in 1994 (Norhasiyati, 1995). It is a 40 minutes boat ride from Kuala Tahan complex, along the Tahan River, offering splendid view of leaning dipterocarp trees (*Dipterocarpus oblongifolius*) forming an archway over the river. Besides the cascading waterfall, Lata Berkoh is also suitable for swimming.

Rapids shooting along Tembeling River, on the way to Kuala Trenggan is a challenging activity for foreign visitors. Other visitor opportunities include caving at Gua Telinga, climbing Teresek Hill and bird-watching. Taman Negara has 54% of the 575 bird species found in Peninsular Malaysia and is considered to be one of the most sought after destinations for lowland birds by international bird watchers (DWNP, 1987)

Observation hides overlooking saltlicks allow visitors to spend the night observing terrestrial wildlife. There are six hides, namely Tahan, Tabing, Cegar Anjing, Belau, Yong and Kumbang hides. With the exception of the Tahan hide, which is a five minutes walk from the Kuala Tahan complex, all the other high hides have overnight accommodation for 6-8 persons and toilet facilities.

Fishing lodges are available at Lata Berkoh, Perkai, Kenyam and Trenggan and a permit is required for fishing. The latest attraction in the

park is the canopy walkway, the longest in the world, installed at elevations above 25 metres and stretching over 400 metres. Its first phase completed in September 1993, attracted 21,708 visitors in 1994 (DWNP, 1995). Charges for user fees are shown in Appendix H.

Taman Negara Fest, popularly known as July Fest is an annual event in Taman Negara, held since 1991. The one month celebration in July is jointly organised by Taman Negara Resort, Ministry of Culture, Arts and Tourism (MOCAT) and DWNP, and is aimed at promoting tourism in the park. The events promoted are divided into six categories, namely water sports, orienteering, fishing canoeing, kayak race, rafting and climbing marathon. However, Roslan Abdul Rahman, TNR resident manager felt that the fest had failed to attract both local and foreign visitors (Norhasiyati, 1995). Majority of the activities are participated by local communities and staff from DWNP and TNR. Most foreign visitors were not able to participate or witness the daily events because they were tied-up by the itineraries in their package tours, involving the activities mentioned earlier.

The July Fest is being promoted at various international fairs such as International Tourisme Bureau (ITB) and other overseas sales trip. However, visitors figure in July 1995 shows a lower figure compared to the same month in the previous year, and there is no significant increase of visitors compared to the other months of the year. There is a need therefore to review the overall approach to July Fest, taking into consideration the primary objectives of the fest since a substantial amount of resources have been utilised in organising and promoting the fest.

Facilities

Facilities at Kuala Tahan complex include visitors accommodation, reception office, restaurants, souvenir shop, multipurpose hall and an interpretative centre. Apart from the upmarket Taman Negara Resort, there are other budget accommodation situated just outside the park. Most of these accommodation were developed less than two years ago due to the demand of local and budget foreign visitors who could not afford the upmarket accommodation and meals charged by TNR (Table 6.2). Example of such accommodation concentrating opposite Kuala Tahan complex are Agoh Chalet, Tembeling Camp, Teresek View and Liana Hostel. Agoh Chalet, which started operation in 1994, offers 10 chalets (three units of four-beds and seven units of two-beds chalets), while Liana Hostel has 10 rooms (4 person per room).

Camp Nusa is another private accommodation located upstream of Kuala Tahan along Tembeling River (Figure 6.7). However, not many visitors stay at the private accommodation outside the park, which is not only due to their limited capacity but also to the lack of scheduled river transportation to and from the park.

There are a few floating restaurants along the river bank adjacent to the jetty, just outside the park, which provide reasonably priced food to local and budget foreign visitors. However, the owners of the restaurants and budget accommodation are mostly local entrepreneurs from nearby urban areas, such as Kuala Tembeling or Jerantut. Local communities often lack the capital and skills to be directly involved in providing these services.

Table 6.2 Charges of Facilities and Services by Taman Negara Resort (TNR)

Descriptions	Units	Single (RM)	Double (RM)
Accommodation^{1 & 2}			
a. Kuala Tahan			
• hostel (per person)	• 8 rooms x 8 beds per room = 64	18.00	-
• standard guesthouse	• 16	120.00	150.00
• chalet	• 71	170.00	200.00
• chalet suite	• 14	260.00	290.00
• bungalow	• 2	520.00	520.00
b. Kuala Trenggan			
• Trenggan Lodge	• 10	110.00 ³	
c. Kuala Kenyam			
• Kenyam Lodge	• 10	120.00 ³	
Boat transfer			
• Kuala Tembeling - Kuala Tahan (return)	per person	36.00	
Guide service (per day)	maximum 12 person in a group	100.00	

Notes :

¹ except for hostel, prices include breakfast at the Tahan Restaurant² prices for accommodation subjected to 10% service charge and 5% government tax.³ rates for Trenggan and Kenyam Lodge inclusive of return boat transfer from Kuala Tahan

Interpretation and Education

The interpretation centre in Taman Negara is managed by DWNP. Interpretative programmes provided by DWNP include daily slides show, information booklets, and nature trails. TNR provide organised guided walks and map for its clients. Generally, the interpretative services in Taman Negara is very basic. DWNP lacks financial resources, expertise and trained staff to establish and manage quality interpretative programmes. Interpretative programmes should aim at increasing visitors' understanding of the complex nature of the ecosystems, fostering the appreciation of the natural surroundings, enhance the recreational experiences, resource protection, park regulations and public relations.

Interpretative programmes can be approached in terms of a service to visitors and as a strategic environmental education (Ham, Sutherland & Meganck, 1993). Services for visitors mainly involve visitor orientation, such as interpretative trails, signs and markers, maps, publication and guides, manned and self-help information booths. Environmental education for local and foreign visitors may include slide shows, talks, guided walks, exhibits, audio visual programmes which would increase visitors awareness, comprehension, appreciation and enjoyment of park's resources and its management objectives. Most infringements of park regulation occurs out of ignorance on the part of visitors. Strategic issues which could be addressed include educating visitors on the consequences of littering, bathing in the river with soap and unsanitary toilet practices near water sources.

Interpretative services for local communities could be in the form of extension programmes related to agriculture, personal health and environmental education. These programmes will benefit the local communities directly, increase their understanding of the purpose of the

park and encouraging a healthy relationship with the park's staff.

A nature study centre located in Kuala Atok (Figure 6.5) provides training for DWNP staff and conducts environmental education programmes for students from selected schools in co-operation with the Ministry of Education. In 1993, 269 students from 23 different schools participated in such programmes (Figure 6.6) which emphasised on the 'importance of wildlife, plants and the surrounding environment' (DWNP, 1994:12). The centre has also organised the newly introduced localised tourist guides courses in collaboration with MOCAT and University of Agriculture Malaysia (DWNP, 1994).

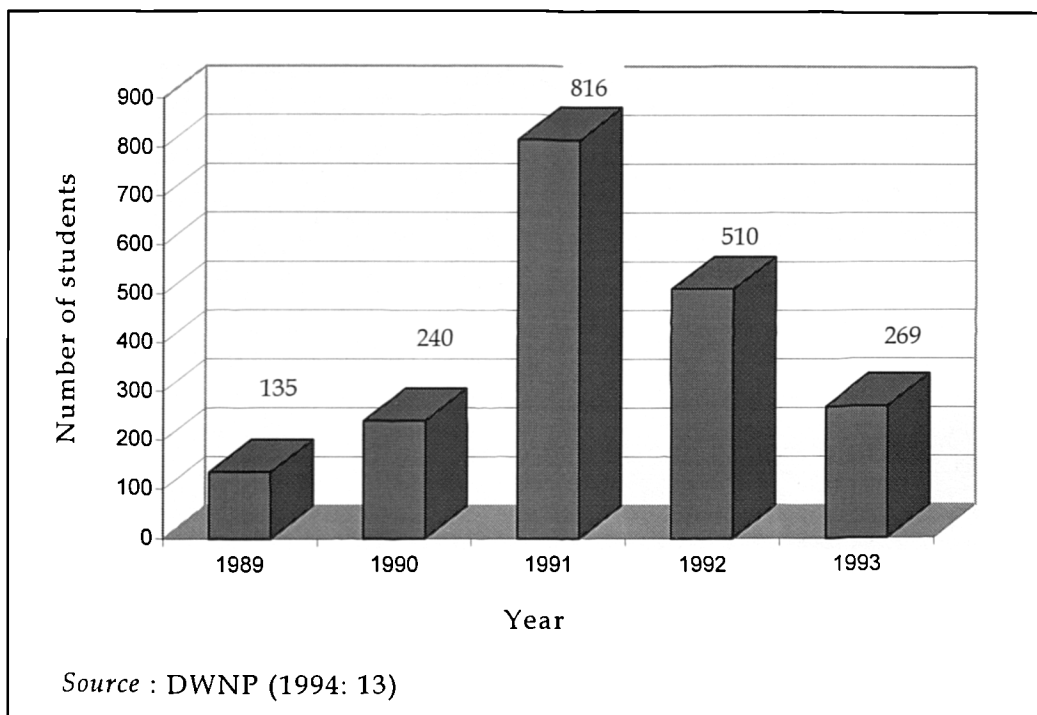


Figure 6.6 Number of Students attending the Nature Study Centre, Kuala Atok

Threats and Tourism Impacts

As revealed by the Taman Negara Master Plan, the park encounters both major and minor threats (DWNP, 1987). The minor threats include poaching, pilfering forest produce such as rattan and fishermen utilising poisons and home-made bombs. These activities are usually concentrated at the border. The major threats are the possibility of large scale logging, dam building, construction of roads in the park or the conversion of park land to agriculture or forestry plantation.

The Master Plan also highlights that the long term survival of the park is being influenced by its rich timber potential.

There are always those who would like to profit from this potential and are wise enough not to seek profit directly. Rather they seek to have other development projects initiated that require the land and use such situations to obtain their goals.

(Source: DWNP, 1987: 47)

The impacts of tourism are usually related to the over development of the main attraction area in Taman Negara, the Kuala Tahan Complex. Musa (1983), the present Director General of DWNP in his article related to the carrying capacity of Kuala Tahan Complex has stated that :

...Taman Negara offers a unique kind of experience, the value of which is greatly dependent on the ability of a visitor to enjoy solitude, quiet and those other conditions which will enable him to observe birds and wildlife and generally enjoy an experience far from crowded humanity.

He emphasised studies have suggested that for Taman Negara to offer the visitor experience mentioned above, the carrying capacity is influenced by 'two recreation facilities which cannot be expanded any further and are thus limiting factors. These are (i) Lata Berkoh and (ii) High Hides' (Musa, 1982: 38). He

further stressed that Lata Berkoh would lose its value if there were more than 30 persons utilising the picnic spot at any given time and this figure after computation implies that the accommodation at Kuala Tahan Complex should not exceed 135 persons at any given time if all visitors are given reasonable excess to this facility. Similarly for the high hides not more than 160 persons should be allowed into Kuala Tahan if this facility is to be reasonably enjoyed.

Table 6.2 clearly indicates that the present accommodation provided by TNR and the campsite facilities at the Kuala Tahan Complex can easily accommodate more than 300 persons at any one time. The figure will be even higher if children and those staying at private accommodation just opposite the Kuala Tahan complex, outside of the park is included. The present figure more than doubles the original number of visitors intended for the Kuala Tahan Complex. Furthermore, the Taman Negara Master Plan has also indicated that the maximum capacity of Kuala Tahan is 10,000 visitors per year, where the present number of visitors has far exceeded this figure (Table 6.1). There is an urgent need therefore to control the further expansion of accommodation facilities at the Kuala Tahan Complex and further develop other visitor areas. Some of the areas which have been developed and proposed for development include the Kenyir Dam Lake Area (north-east); Kuala Koh and Kuala Pertang (north); Kuala Negeram and Kuala Joram (west); and Sungai Tiang (south) (Musa, 1982; DWNP, 1987; Yong, 1992).

Some of the negative environmental impacts of tourism as observed by the researcher and Yong (1992) include :

- Littering by visitors especially along trails, campsites and river banks;
- Sewage disposal from septic tank system at Kuala Tahan, resulting in domestic waste water going into the ground and west bank slopes of Tahan River;

-
- Unsanitary toilet practices near water sources and visitors using soaps to bathe along Tahan River;
 - Soil erosion along certain trails and heavily-used areas, e.g. Teresek Hill;
 - Plants along and close to hiking trails and camp sites are damaged by trampling and indiscriminate cutting for fuel, camping poles or walking sticks;
 - Pollution from noisy outboard motors and congestion of the riverway during peak periods, especially at the floating restaurants; and
 - Wildlife being displaced at the Kuala Tahan area. There is an increase in the population of wild pigs (*Sus scrofa*) which visit the Kuala Tahan complex in search for food since their natural predator, the tigers are dispersed from the area due to human presence.

Steps taken by DWNP in controlling the problem of litter include the requirement for the local guide accompanying trekking group to Mount Tahan to oversee that visitors comply with the clean-up regulations. Moreover, before the climb, rangers will record all the food stuff taken by trekkers and they are required to bring back all the non-biodegradable materials (empty cans, plastic bottles etc.). The mini-market which TNR operates also gives a high refund on empty plastic containers, bottles, cans and food wrappers.

Although there are some adverse impacts associated with tourism, it is not considered as a major threat to the park compared to the other land uses such as logging, building of dam and agriculture. However, tourism development should be planned and managed appropriately to complement the primary conservation objective of the park.

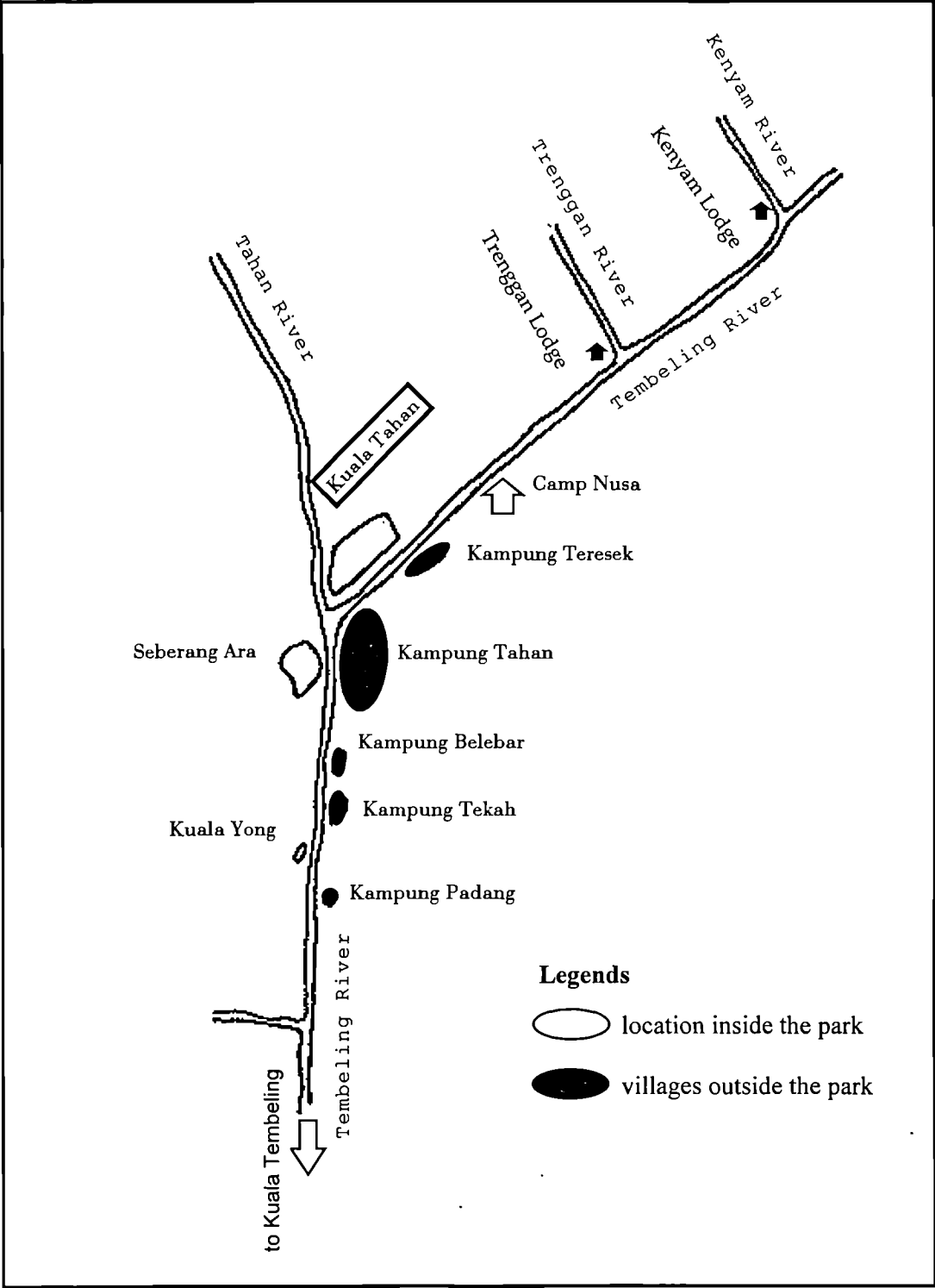


Figure 6.7 Kuala Tahan and its vicinity

Local Communities

The local communities of Taman Negara can be distinguished into two groups, the *Orang Asli* or aborigine and the Malay local communities. In Peninsular Malaysia, the aborigines can be categorised into three main groups, the Negrito, Senoi and Proto-Malay. In Taman Negara, the *Orang Asli* is from the Bateq Negrito tribe, originating from southern mainland of South-east Asia. The Negrito is the smallest group, with a total population of 2,442 people, mainly concentrated in Terengganu and Pahang. There are between 200-400 Bateq living a nomadic life in Taman Negara (DWNP, 1987), with a small community settlement in Kuala Yong, near to Kuala Tahan (Figure 6.7). *Orang Asli* were the early guides and porters initially employed by visitors wishing to hike to Gunung Tahan.

The second group of local communities are the Malays. In 1863, the Chief Minister of Pahang arranged an expedition to look for gold, and among the most remote settlement reached was Kuala Tahan (Briggs, 1985). The Malay communities then settled in these areas, dependent on agriculture, forest and river as sources of food and the Tembeling river as their main mode of transportation. Chamhuri (1983) considers the local communities around Taman Negara as a 'fringe society', a society which is separated from the process of development. This is because the main communication link is the river and the absence of roads has a major influence on the accessibility and the overall development of the area. The local communities have been highly dependent on the forest for their livelihood and they consequently lost an important source of supplementary income when the area was designated as a national park.

Nevertheless, local communities still pilfer forest produce, rattan and incense wood from the park (Ahmad, Wan Sabri, Abdullah & Zahid, 1995). Although it is prohibited, some are still willing to take the risk to supplement

their subsistence income. However, decrease supplies and greater enforcement by park's authorities have restricted this traditional practice.

Tourism development in the park has generated jobs and increase the opportunities for local communities to earn additional income. How they perceived the development of tourism will further be discussed in the next chapter.

6.3 PROFILE OF KINABALU PARK (KP)

The second part of this chapter details Kinabalu Park, the second case study area. It will present the overall perspective of Kinabalu Park, looking at how the park was initially developed, the growth of tourism, local communities living in the vicinity of the park and the growing threats facing the park.

Development of Kinabalu Park

Kinabalu Park is in the state of Sabah, one of the two East Malaysian states in the island of Borneo (Figure 6.8). It straddles the northern edge of the Crocker Range, a mass of sedimentary hills which form the main topographical feature in the west coast of Sabah. Mount Kinabalu (4,101 m) being the highest mountain between the Himalayas and West Irian is the main attraction of the park (Bailes, 1985). The park's altitude ranges from 150 - 4,101 m asl, with temperature between 15°C - 22°C at Park Headquarters (Jacobson, 1986). The total area of the park is 75,337 hectares, principally uninhabited when it was established. It has two centres: Park Headquarters (1,554 m asl) and Poring (480 m asl), each having its own facilities for visitors (Figure 6.9).

The word Kinabalu originated from the Kadazan word, Aki Nabalun or the 'revered place of the dead' because locals believe the spirits of their ancestors reside on the mountain tops (Jacobson, 1986). Ibn Batuta, the Arab voyager during his travel to North Borneo in the mid-14th century, pictured Mount Kinabalu as 'the great Mountain of Clouds' (Hutton, 1992) and in 1769, a naval officer, Captain Alexander Dalrymple, wrote on Kinabalu, describing its immense height (Neill & Foster, 1995).

The first recorded exploration to Mount Kinabalu was in 1851, where Sir Hugh Low with a group of forty-two Dusun porters attempted to conquer the summit of Mount Kinabalu (Payne, 1990). The guides were 'armed with a basket

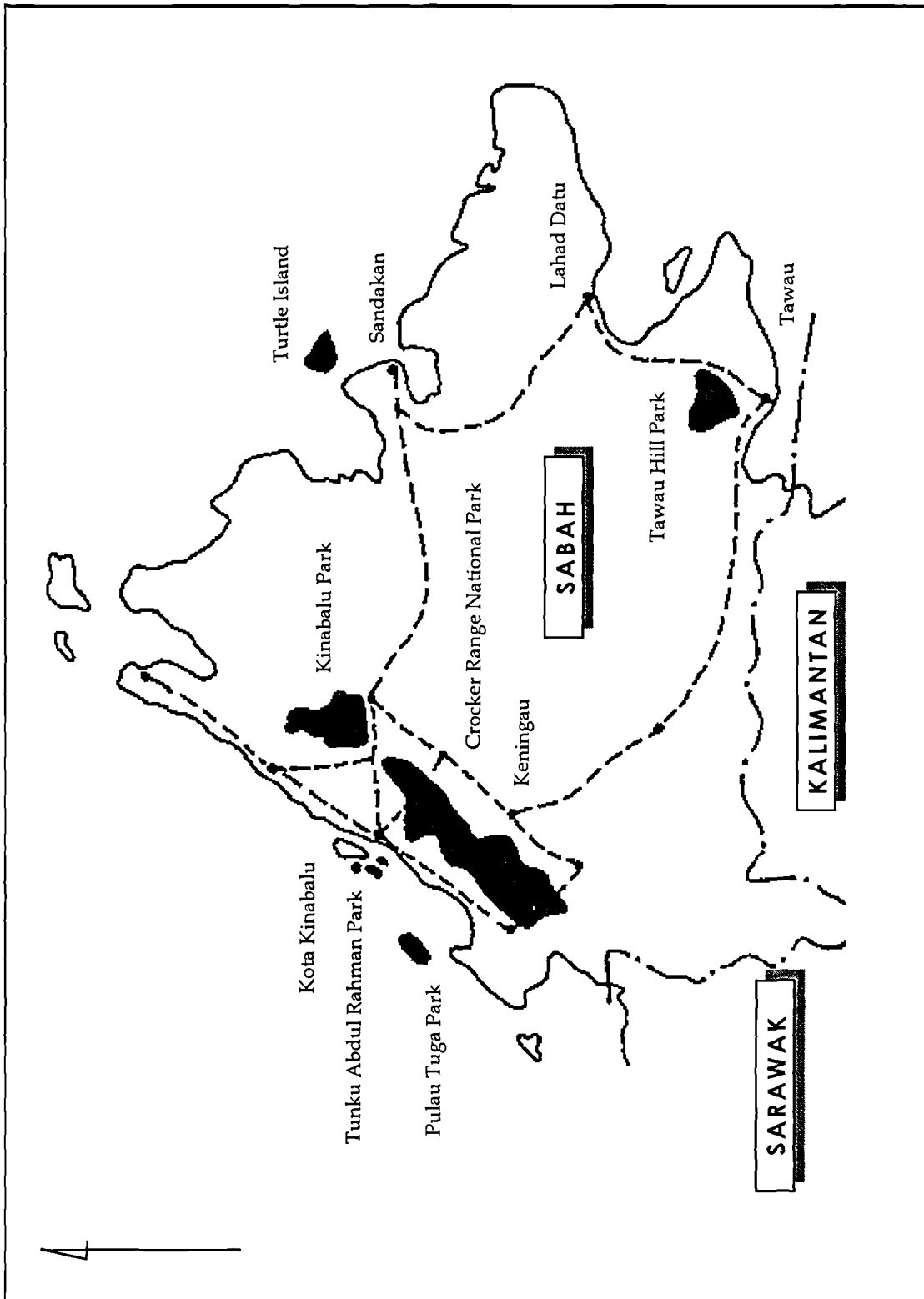


Figure 6.8 Map of Sabah

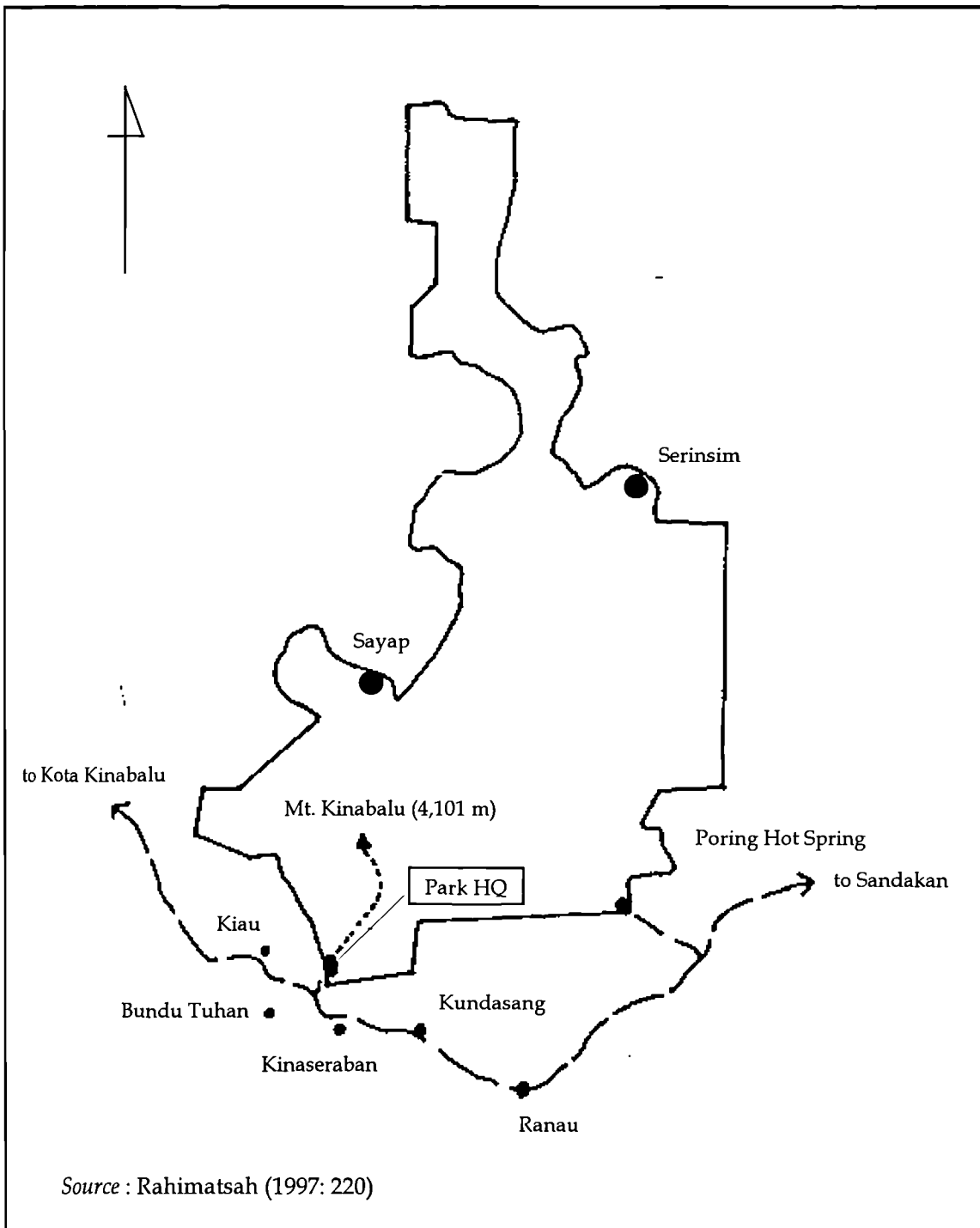


Figure 6.9 Kinabalu Park and its surrounding

of quartz crystals and human teeth' to protect the group from supernatural beings believed to be living in the forests (Neill & Foster, 1995: 7). However, the exploration was not successful.

In April 1858, Low made a second attempt with Spenser St. John, but failed to reach the summit. Low was unable to go further due to the condition of his feet, while St. John only managed to reach Paka cave, before being forced to retreat (Briggs, 1985). In July the same year, Low and St. John made another attempt to conquer the summit. In this exploration, St. John was the only one who was fortunate to reach what was thought to be the highest peak, which is known today as the St. John's Peak (4,097 m). John Whitehead, a botanist was the first person to reach the highest summit (4,101 m) of Mount Kinabalu in 1888 and he named the peak as Low's Peak, in memory of Hugh Low (Jacobson, 1986). In 1910, Ms Lilian Gibbs, an English botanist became the first woman to scale the highest peak and managed to collect more than a thousand botanical specimens for the British Museum (Jacobson, 1986).

The recreational potential of Kinabalu park has long been established. During the colonial period, there were considerations to built a hill station at the park for the British and European personnel to enjoy its cooler surroundings. Rutter (1922, cited in Voon & Teh, 1992: 107) mentioned of this possibility: 'the best and most convenient upon one of the lovely spurs of Mount Kinabalu...could be one of the most delightful hill-stations in the East'.

Establishment of Kinabalu Park

The two Royal Society North Borneo (RSNB) Expeditions in 1961 and 1964 were instrumental in the establishment of the park (Phillips, 1973). The second RSNB expedition, led by E.J. Corner was the first successful scientific expedition to reach the summit via the Eastern

Plateau after their first attempt in 1961 was unsuccessful (Briggs, 1985). The Eastern Plateau offers an alternative longer route to Mount Kinabalu compared to the one from the present Park Headquarters, but it has a more a lavish display of exceptional vegetation such as miles of pitcher plants, rhododendrons, and orchids (RSNBE, 1962).

Kinabalu Park was established in 1964, it was the first park to be 'constituted' under the *National Parks Ordinance 1962*. The Sabah Parks Board of Trustees, which is known as 'Sabah Parks', was 'constituted' with the establishment of Kinabalu 'National' Park under the same ordinance (GOS, 1974). The *National Park Ordinance 1962* was subsequently superseded by *Park Enactment 1984*, where all 'national' parks existing in Sabah at that time were reconstituted as 'state' parks to ensure that they remained under state legislation rather than federal control (IUCN, 1992). The *Park Enactment 1984* provides better provision concerning the constitution, administration, procedures, functions and finance of parks in Sabah. Therefore, unlike other states in Peninsular Malaysia, Sabah has its own conservation legislation and administrative machinery for the planning and administration of conservation areas in the state.

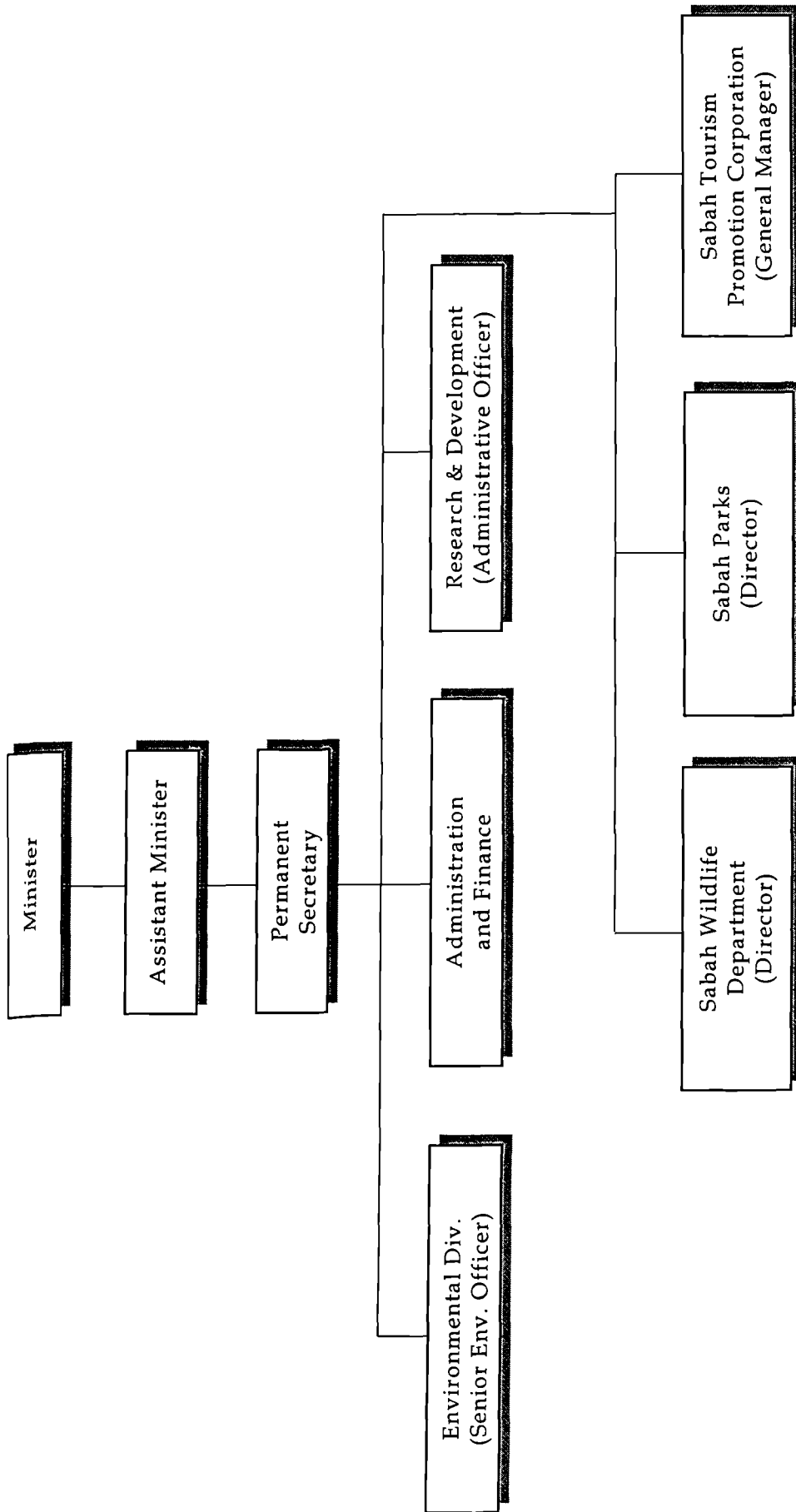
The main objective of establishing Kinabalu park is :

...to preserve for all time areas which contain significant geographical, geological, biological or historical features as a national heritage for the benefit, education and enjoyment of the people of Sabah.

(Jenkins *et al.*, 1976: 3)

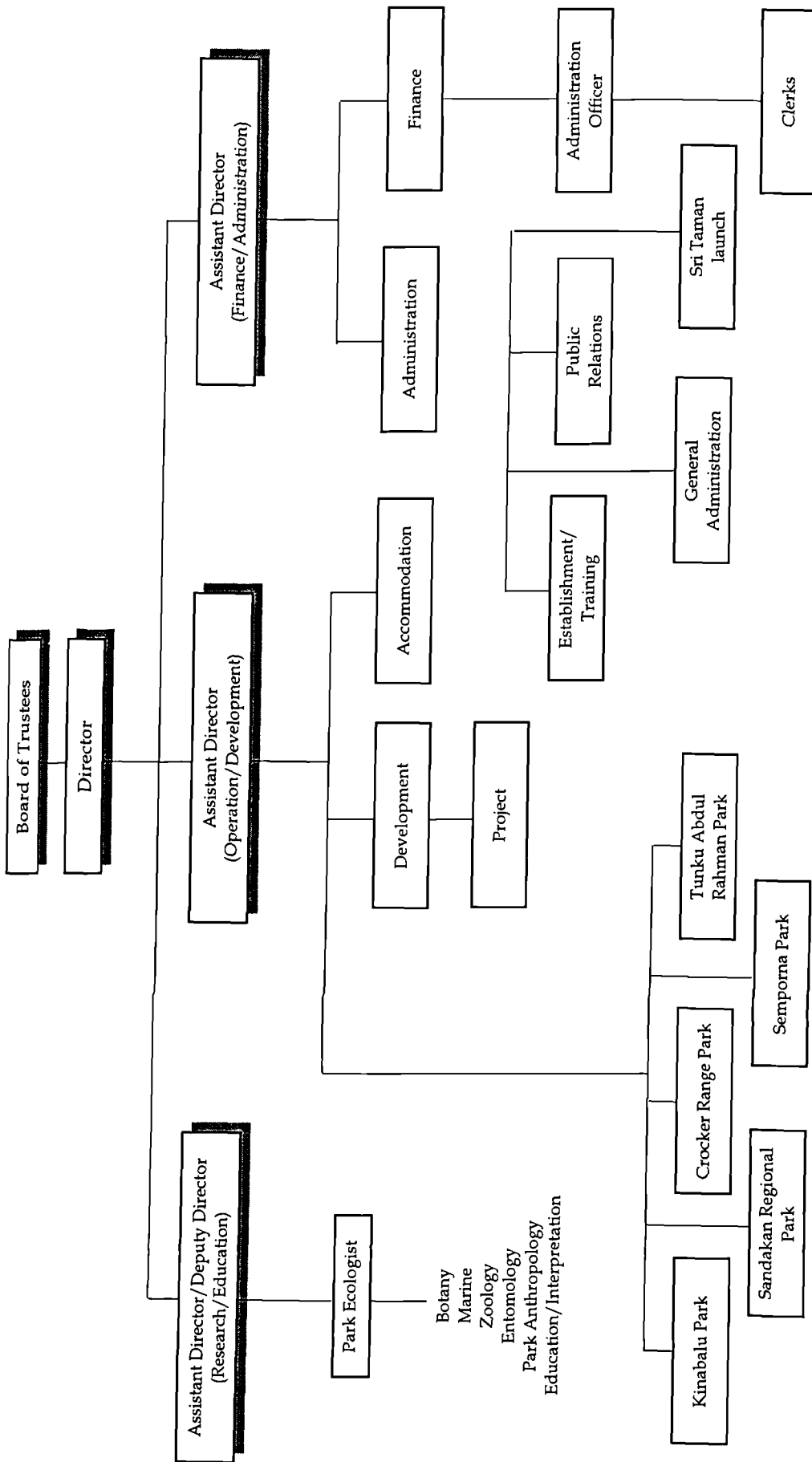
Administration

Tourism at the state level is under the Ministry of Tourism & Environmental Development (MTED), which comprises several



Source : MTED (1994)

Figure 6.10 Organisation chart for Ministry of Tourism and Environmental Development (MTED)



Source : Rahimatsah (1997: 65)

Figure 6.11 Organisation for Sabah Parks

departments: Administration and Finance; Research and Development; Environmental Division; Wildlife Department; and two statutory agencies: Sabah Tourism Promotion Corporation and Sabah Parks (Figure 6.10).

In Sabah, tourism and environment is placed under the same ministry unlike at the national level where tourism is under MOCAT (Figure 2.3) and the environment is under the Department of Environment in the Ministry of Science and Technology (Figure 6.2). Placing tourism and the environment under the same ministry has an added advantage since it provides better co-ordination in planning and implementing of policies.

Sabah Parks is managed by a Board of Trustees who are appointed by the State government (Figure 6.11). It is controlled and funded by the State government through the Ministry of Tourism and Environmental Development (Figure 6.10). The Board of Trustees is given the mandate to preserve at all times areas of significant geographical, geological, biological or historical features as a National Heritage for the benefit, education and enjoyment of the people of Sabah (Jenkins, Liew & Hecht, 1976). Sabah Parks is therefore responsible for the development, control, management and maintenance of all park areas in Sabah (Table 6.3). In general, the functions of the Board of Trustees (GOS, 1984: 107) are to :

- initiate, co-ordinate and control the activities in respect of all Parks in Sabah;
- make recommendations to the Government on the methods, measures and policies to be adopted to facilitate the development of the Parks and, where approved by Government, to implement and assist in the implementation of the same; and
- to control, manage and administer the Fund.

Table 6.3 Parks in Sabah

Names	Gazetted	Area (ha)	Major habitat
Kinabalu Park	1964	75,337	lowland, montane
Tunku Abdul Rahman Park	1974	4,929	marine, island vegetation
Turtle Islands Park	1977	1,740	marine
Pulau Tiga Park	1978	15,864	marine, island vegetation
Tawau Hill Park	1979	27,972	lowland, submontane
Crocker Range National Park	1984	139,918	lowland, montane

Source : Nais & Lamri (1991: 184)

The State Legislative Assembly bears all the capital and administrative expenditures of parks in Sabah. Besides the Legislative Assembly, the 'Parks Fund' under Part VII of *Parks Enactment 1984* is established from funds raised or collected by the Board which include user-fees, concession fees, fine from offences and profit from investments (GOS, 1984: 108). The 'Parks Fund' is therefore being utilised for the development of existing and future parks in Sabah, with the approval of the State's Ministry for Financial Planning (GOS, 1984).

Before the recently completed Kinabalu Park Development Master Plan, management of Kinabalu Park is guided solely by policies governing Sabah Parks. The new master plan addresses issues such as zoning, where appropriate zones are designated to areas possessing outstanding natural and scenic values; wilderness and conservation areas; special scientific values; and recreation and tourism. To ease the pressure at the Park Headquarters, the master plan recommends the development of other areas in the park such as Mesilau in the Pinusok Plateau, Serinsim in Kota Marudu, and Sayap in Kota Belud (Figure 6.9).

Tourism in Kinabalu Park

Tourism in Kinabalu Park is mainly a national phenomena, with majority of visitors being local. This conforms to the park's policy of having the national park for the 'benefit, education and enjoyment of the people of Sabah' (Jenkins *et al.*, 1976: 3). The park is often crowded during weekends and public holidays, attracting a wide range of visitors representing all segments of society.

Kinabalu Park is the state's main tourist attraction, a major source of employment and income (Cochrane, 1993). The park is around ninety percent self-sufficient, where substantial revenue is generated from tourism through entrance and accommodation fees, equipment hire, book and souvenir sales (Jacobson, 1990). In 1987, there was an excess in earnings, where the total revenue from user park charges was about RM1.07 million compared to the total expenditure of RM849,486 (Wan Sabri & Sam Shor, 1994). It demonstrates the case where conservation and tourism has successfully merged, reflecting Budowski (1976) symbiosis relationship, where both derives benefits from each other and are mutually supportive.

Table 6.4 shows the total number of visitors to the Park Headquarters, their composition in terms of local, foreign, overnight visitors, and climbers to the summit. Presently, there are two visitor centres with accommodation facilities in Kinabalu Park, the Park Headquarters and Poring. The Park Headquarters is the first centre to be established, has more visitor facilities and due to its higher elevation and lower temperature, is more popular among visitors.

The easy access to Kinabalu Park is considered to be one the main factors influencing it as a popular destination. The park is accessible to visitors by various 'all weather' roads from Kota Kinabalu, Tuaran, Kota Belud, Ranau and Kundasang (Figure 6.8 & 6.9). The travelling time from Kota Kinabalu, the

Table 6.4 Visitors to Kinabalu Park HQ & Summit

Year	Number of Visitors to Kinabalu Park HQ						Climbers
	Day Visitors	Overnight	Total	Local	Foreign		
1985	126,313	47,764	174,077	172,015	2,062		14,485
1986	165,068	45,930	210,998	206,969	4,029		25,842
1987	137,261	50,107	187,368	183,626	3,742		18,444
1988	136,344	47,521	183,865	176,117	7,748		16,727
1989	123,520	49,939	173,459	162,524	10,935		16,548
1990	170,553	63,412	233,965	217,162	16,803		21,328
1991	140,809	70,053	210,862	189,964	20,898		24,209
1992	123,343	68,113	191,456	169,918	21,538		24,303
1993	108,753	72,389	181,142	159,857	21,285		28,134
1994	121,774	79,133	200,907	179,239	21,668		29,574
1995	132,207	81,686	214,350	190,536	23,814		34,276

Source : Kinabalu Park (1995, 1996)

capital of Sabah to Kinabalu Park was reduced from 4 hours to 1.5 hours with the upgrading of the gravel road in 1982, increasing visitor arrivals significantly from 56,655 in 1982 to 163,337 in 1984 (Voon & Teh, 1992).

Attractions

The rich variety of natural resources such as the mountain, profuse and diversified vegetation, attractive hydrologic features and wildlife presents Kinabalu Park as an attractive destination with exceptional scenic qualities, recreational and touristic opportunities. Table 6.5 illustrates the unique attributes of Kinabalu Park.

The main attraction of Kinabalu Park is the summit of Kinabalu (4,101 m asl). On a clear day, it can be observed from as far as Kota Kinabalu. Mt. Kinabalu is split down through the centre by a 0.5 km. deep gorge, giving it a 'U' shape, with Kinabalu East and Kinabalu West on each side. There were assumptions that the mountain was a volcano, however, recent evidence revealed that it is the youngest granite pluton in the world, creating a landscape of remarkable beauty (Jacobson, 1986).

Kinabalu Park is a botanical paradise, representing over half of the world's families of flowering plants, with many species endemic only to the park (Jacobson, 1986). The difference in altitudes causes climatic changes producing a rich diversity of plant species. There are over 1,200 species of orchids, 450 species of ferns, and 120 species of figs, 26 species of rhododendrons and 10 species of the carnivorous pitcher plants (Bailes, 1985, Jacobson, 1986, Argent, Lamb, Phillipps & Collenette, 1988). *Rafflesia*, the world's largest flower, named after Sir Thomas Raffles, the Governor of Singapore during the British East India Company's rule in Southeast Asia is found in the park. Joseph Arnold and Sir Raffles, both keen naturalists found the flower during their expedition

Table 6.5 Unique Attributes of Kinabalu Park

Attributes	Features	Descriptions
Physical Attributes	Geomorphology	<ul style="list-style-type: none"> • highest mountain in South East Asia (4,101 m) • thermal spring with therapeutic reputation • attractive hydrologic features: waterfalls, etc.
	Flora/fauna	<ul style="list-style-type: none"> • Diverse and complex natural habitat • sanctuary to interesting and rare mammals
Social Attributes	Scenic	<ul style="list-style-type: none"> • variform topography • luxuriant and variegate vegetation • presence of diverse/rare wildlife • hydrologic aesthetics • panoramic, undulating landscape, valleys and interesting villages from mountain heights
	Educational	<ul style="list-style-type: none"> • botanical and zoological research • ornithological interests • nature and conservation study
	Emotional	<ul style="list-style-type: none"> • wilderness experience and associated attributes of solitude, tranquillity, thrills from experiences of nature and adventure • enjoyment and comfort of cool weather
	Recreational	<ul style="list-style-type: none"> • nature and scenic appreciation • emotional experience (refer above) • forest recreation • terrain and terrestrial exploration • general recreation, e.g. picnic, sightseeing, socialising

Source : Pianzin (1992: 194)

in Sumatra in May, 1818 (Kamaruddin, 1991). The magnificent red flower vulnerable to extinction can be up to one metre across and two kilograms in weight, parasitic in nature with no roots, leaves and stem.

There is a rich diversity of animal life in the park although viewing them can be difficult. There are more than a hundred species of mammals, with a greater variety of species in the lowland forest (Jacobson, 1986). The most common mammals are squirrels and tree shrews, with mousedeer, barking deer and bearded pigs occasionally seen. Some of the larger mammals found in the park but rarely observed are the orang-utan (*Pongo pygmaeus*) and tarsier (*Tarsius bancanus*), while the Sumatran rhinoceros may have become extinct. Kinabalu Park is also an ideal location for bird watching, with more than half of Borneo's 518 species of birds have been recorded in the park (Jacobson, 1986).

The mountain garden, located at Park Headquarters was completed in 1981. The garden with an area of 2.02 hectares has a huge variety of plants including orchids, pitcher plants and rhododendrons. There are about 600 species of orchids displayed in the garden. The garden protects a collection of montane plants of special scientific interest while providing an opportunity for visitors to observe and photograph these plants. It also aids the conservation objective of the park by reducing the possibility of trampling or illegal harvesting by climbers and photographers. Guided walk in the mountain garden lead by a park naturalist is conducted daily at three different times (twice in English and once in the Bahasa Malaysia version).

Attractions in Poring, the second visitor centre include walking trails, waterfall, hot sulphur pools, orchid and butterfly centres, and canopy walkway.

Facilities

There are various choices of accommodation available in the park with a diverse range of prices to cater for the different segments of visitors. Table 6.6 shows the park accommodation at three different elevations: Park Headquarters, Panar Laban and Sayat Sayat. The various types of accommodation at the Park Headquarters are able to accommodate up to 210 visitors, while the capacity of the mountain huts at Panar Laban (3,300 m) is 120 climbers and at Sayat Sayat (3,810m) is 8 climbers. The charges for the accommodation varies, with reduced rates during the weekdays and special student rate at the hostels (only applicable to students from Sabah). Gurkha Hut is the highest mountain hut, located at the base of OyaUbi Lwu and it is utilised mainly by rock climbers.

There are several private accommodation outside the park. The largest one is the 4-star Perkasa Hotel in Kundasang and several smaller lodges and motels located between the Park Headquarters and Kundasang. Some of these lodges are owned by tour operators and are specially reserved for their clients. Other facilities for visitors in the Park HQ include two restaurants and a souvenir shop.

Activities

Visitors can participate in several recreational and educational activities in the park. Among the more popular activities undertaken by visitors are climbing to the summit of Mount Kinabalu, relaxing and enjoying the cool mountain atmosphere, trail walking, photography, learning about nature and bird watching.

The overall duration of the hike to the summit is two days and requires no special abilities as it is considered to be “the world’s easiest mountain to climb” (Markwell, 1995: 47). However, it can be very

Table 6.6 Accommodation at Kinabalu Park HQ

Type	No. of person per unit (A)	No. of unit (B)	Total no. of person C = A x B	Rate per unit per day (RM)		
				X	Y	Z
a. Park HQ (1,554 m)						
• Kinabalu Lodge	8	1	8	360.00	270.00	180.00
• Nepenthes Villa Chalet	4	8	32	250.00	180.00	180.00
• Double storey Deluxe Cabin	7	1	7	250.00	180.00	125.00
• Single storey Deluxe Cabin	5	1	5	200.00	150.00	100.00
• Duplex Chalet	6	4	24	200.00	150.00	100.00
• Annex Suite rooms	4	4	16	160.00	100.00	80.00
• Twin-bed Cabin	2	10	20	80.00	50.00	40.00
• New hostel (dormitory)	52	1	52	10.00 per bed per night, 5.00 for students		
• Old hostel (dormitory)	46	1	46	10.00 per bed per night, 5.00 for students		
		Total	210			
b. Panar Laban (3,300 m)						
• Laban Rata Resthouse	1	54	54	25.00 per bed per night		
• Gunting Lagadan Hut	1	44	44	10.00 per bed per night, 5.00 for students		
• Panar Laban Hut	1	10	10	10.00 per bed per night, 5.00 for students		
• Waras Hut	1	12	12	10.00 per bed per night, 5.00 for students		
c. Sayat Sayat (3,810 m)						
	1	8	8	10.00 per bed per night, 5.00 for students		
		Total	128			

Source : Sabah Parks (1994)

Note : X = full rate on weekends, public holidays and school holidays,

Y = reduced rate on weekdays for general public,

Z = reduced rate on weekdays for senior citizens and Government employees

exhausting due to the changes in altitudes, ranging from 1,554 m asl at the Park Headquarters to 3,300 m asl at the overnight shelter in Panar Laban. Mt. Kinabalu has attracted an increasing number of climbers over the years (Table 6.4). All visitors attempting to hike the summit are required to be accompanied by a park guide.

Local visitors visit the park more for relaxation where the cool and refreshing air provides a desirable change from the humidity and excessive heat of the surrounding lowlands areas. Foreign visitors are more active, participating more in physical activities such as hiking and bird watching. Besides the long trail to the summit, there are 11 km of graded trails around park headquarters.

Interpretation and Education

In 1980, an ecology section was set up in Kinabalu Park, to undertake research and provide interpretative services for visitors. It has a laboratory, herbarium, library and a 60 seat auditorium for the daily slide and audio visual presentation. There are eleven naturalists, in which five of them are specifically involved with visitors. Besides the slide shows, other interpretative programmes include displays at the exhibit centre, and daily guided nature walk in the mountain garden and along the short trail around the Park Headquarters. Various publication such as books related to the flora and fauna of the park, birds checklist and maps are also available in the park.

Research

Among the ongoing research in Kinabalu Park is The Kinabalu Ethnobotany Project or 'Projek Etnobotani Kinabalu' (PEK). It is a three year (1994-96) multidisciplinary conservation and research project conducted in Kinabalu Park, with the objective of documenting the vast

traditional knowledge of plants uses and resource utilisation among the local communities (Sabah Parks, undated). It also aims to promote traditional knowledge to the younger members of the local communities and visitors through education, exhibits and interpretative programmes.

Funded by MacArthur Foundation, it involve several partnership, such as Universiti Malaysia Sarawak (UNIMAS), World Wide Fund for Nature (WWF), United Nations Educational Scientific and Cultural Organization (UNESCO) and Royal Botanic Gardens, Kew.

KOKTAS

All accommodation facilities are managed by Kinabalu Park, other services including restaurants, souvenir shops and transportation are leased to KOKTAS ('Koperasi Serbaguna Kakitangan Taman Taman Sabah dan Kakitangan Tenaga Rakyat dan Alam Sekitar Sabah Berhad'). KOKTAS is a cooperative under 'Cooperative Societies Ordinance, No. 3 of 1958' and was established on 2nd December, 1986.

The members of KOKTAS are the staff of Sabah Parks with the management of the cooperative lies on the 10 annually elected committee members. When it was first established, KOKTAS has 127 members and a capital of RM18,050. Presently, the cooperative has 223 members, a paid-up capital of RM57,904.00, fixed assets valued at RM822,249.30 and a workforce of 78 people, mainly from the local communities working in its restaurants, souvenir shop, and the transportation sector (KOKTAS, 1994).

The overall performance of KOKTAS has been promising, Table 6.7 illustrates the profits from their business ventures. Besides contributing RM12,730 per month to Sabah Parks for the leasing of facilities and providing employment for the local communities, they also indirectly stimulate the local

Table 6.7 Profits from Selected Business Operations by KOKTAS (RM)

Descriptions	Souvenir shops			Liwagu
	Park HQ	Poring	TAR Park	Cafeteria
Year commencing business	1987	1988	1992	1989
YEAR	1987	1988	1992	1989
	33,295.46	-	-	-
	52,090.91	6,524.50	-	-
	122,897.54	8,850.84	-	21,383.75
	135,211.52	29,925.88	-	143,051.94
	97,124.18	25,285.00	-	93,136.21
	84,283.60	16,850.49	34,131.94	110,291.26

Source : KOKTAS (1994)

- Notes :
- RM4.00 = GBP1.00 (approx.)
 - Kinabalu Balsam (the main restaurant at Park HQ) has been the main profit generating venture by KOKTAS, but figures were not available,
 - Laban Rata Restaurant did not make any profit in its first year of operation (1992), having put RM511,355.20 for initial investment and a return of RM312,855.93

economy by purchasing agricultural products (poultry, vegetable, rice, fruits) for its restaurants from the surrounding villages (Peninsus, 1995 in Rahimatsah, 1997). KOKTAS also provide certain benefits for its members and employees (Table 6.8). Since all of the park's staff are eligible to be members of KOKTAS, the cooperative approach has provided incentives and cooperation between park's staff and KOKTAS. Before the formation of KOKTAS, the facilities were leased to a private concessionaire. However, due to many complaints and the difficulties of controlling the concessionaire, the park management proposed the establishment of KOKTAS.

Local Communities

Several highland villages such as Kiau, Bundu Tuhan, Kinasaraban, Kundasang and Ranau are found within the southern part of the park (Figure 6.9).

Table 6.8 Some of the Benefits for KOKTAS Members

1. Membership	a. Entry fee = RM10.00 per member b. Investment <ul style="list-style-type: none"> • minimum = 10 shares, at RM10.00 per share • maximum = not more than 20% of KOKTAS paid-up capital
2. Benefits (based upon profits after taxation) <ul style="list-style-type: none"> a. workers b. members 	<ul style="list-style-type: none"> • one or two months bonus, • medical • 10% for dividend basing on shares invested, • 10% for festive bonus, divided equally among members, • 10% for sport funds, upon application, • 10% for welfare, upon application • educational fund for needy school childrens of members, upto RM600, • 15% discount for purchase of goods or meals at KOKTAS shops

Sources : Rahimatsah (1997: 92)

They are mainly inhabited by Dusuns or Kadazanns, who are basically involved in agriculture. After the establishment of the park in 1964, the local communities no longer have free access to park resources. Hunting for food (mainly pig, deer and monkeys) still continues on the park's peripheries (Phillips, 1973). However, with greater enforcement and the decline of wildlife, the practice of illegal hunting has become more scarce.

Before the expansion of commercial agriculture in the early 1970s, these villages were sparsely populated and ethnically homogeneous (Voon & Teh, 1992). However, improvement in infrastructures allow the transport and sale of sub-temperate agricultural produce from these villages, attracting the influx of outsiders such as the Bugis and Timorese from Indonesia. At present, Kundasang

(1,311 m asl) is the main centre for the production of a variety of vegetables which include cabbages, potatoes, tomatoes, asparagus and mushroom.

The park as a tourist attraction has also stimulated the local economy. The park is an important source of employment for the local communities. Besides being employed by the park and KOKTAS, all park guides are also from the local communities. A substantial amount of income is also being generated by agricultural produce purchased by KOKTAS through its restaurants and the purchase of fresh vegetables and fruits by local visitors. Thus tourism in the park has managed to provide employment opportunities for the local communities while creating more linkages with other domestic productive sectors.

Threats to the Park

The preservation of Kinabalu Park contributes significantly to the protection of western Sabah's watershed since eight major rivers originate on Mount Kinabalu, providing pure water for drinking, fishing, and irrigation (Jacobson, 1986).

However, similar to many other highlands in Malaysia, the predicament seems to be one of development versus conservation. The impact of development has resulted in vegetation loss, soil erosion, pollution and other forms of environmental degradation (Voon & Teh, 1992). Except within the confines of Kinabalu Park, the entire southern area has been the centre of upland development in Sabah during the past two decades (Figure 6.12). New land uses are replacing traditional shifting cultivation and most of the forest cover has been cleared for development (Kukuon & George, 1986 cited in Voon & Teh, 1992: 108). Kinabalu Park itself is not spared from the pressures of development. The park has lost an area of about 16 square km. to copper mining, and suffers further damage from the pollution of rivers which flow through the Park below the mine workings (Bailes, 1985). Lately, additional parts of the Park in the Pinusok

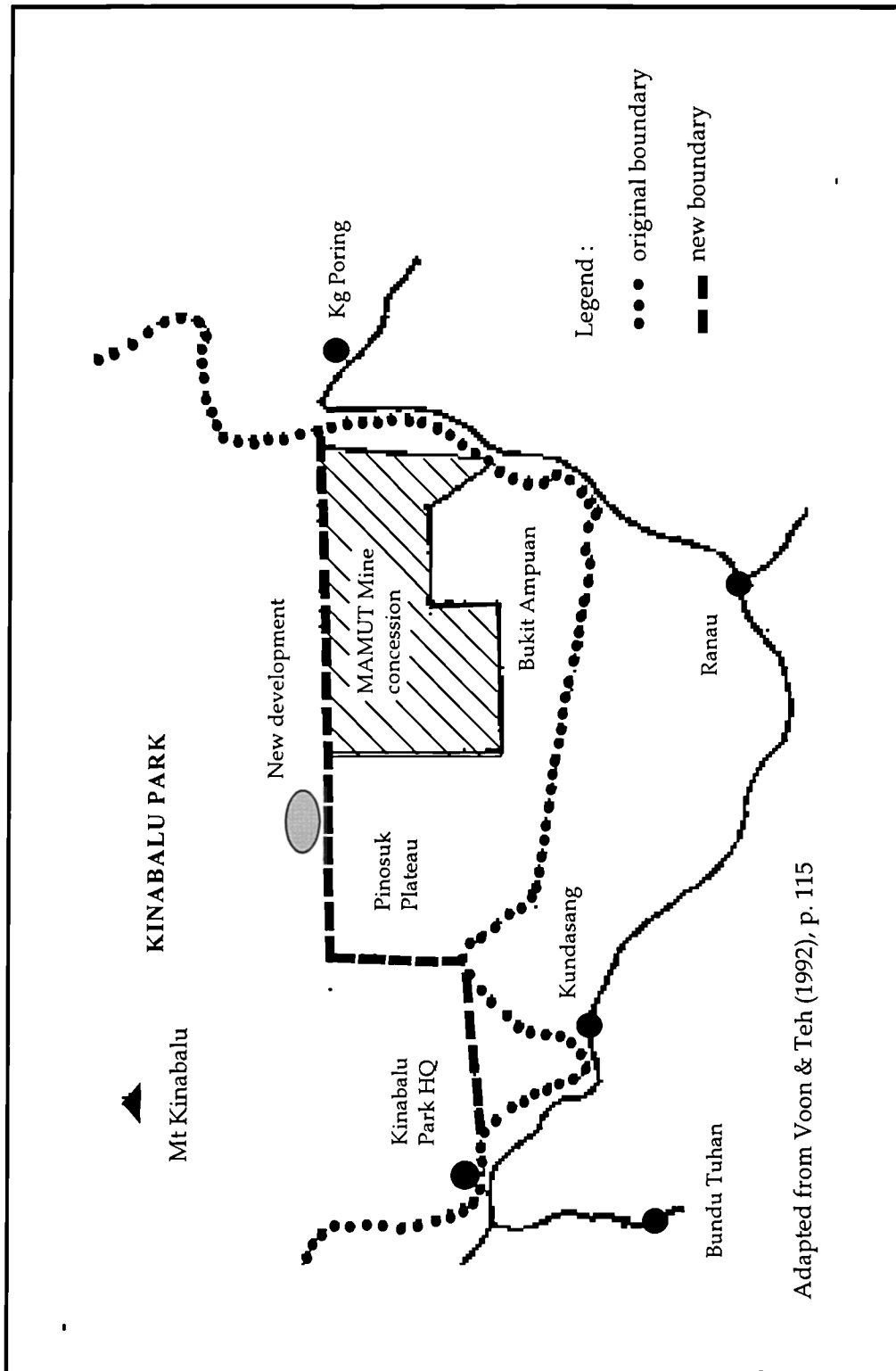


Figure 6.12 Kinabalu Park boundary

Plateau and the Eastern Ridge have been degazetted for agriculture (temperate vegetables and dairy farming) and the construction of a golf course for tourists (Bailes, 1985). The RSNB expedition in 1962 have emphasised the botanical importance of the Pinusok Plateau, where the two species of Slipper Orchid, *Paphiopedilum lowii* and *P. virens* are found. Figure 6.12 shows the parts of the park that have been excised.

The Sabah Tourism Masterplan clearly states that the state's natural attributes is its greatest tourism assets, as compared to man made attractions (IDS, 1988). The present tourism development at the Park Headquarters is appropriate for a national park, encouraging low impact recreation with most of its visitor facilities situated on the very edge of the park, causing minimal disturbance to the ecosystems. Moreover, the modest design and the variety of accommodation in the park has able to cater for the demand of most segments of society.

Recent plans to develop Kundasang as a major tourist attraction area will expand the potentials of tourism in the highlands of South Kinabalu. However, the plans has attracted many criticisms due to the nature of the development and its appropriateness considering the various roles of the area as a water catchment, national park and a centre for the production of sub-temperate vegetables. Plans include further new development at the Mesilau region of the park (Figure 6.12) besides the golf course with an equestrian centre, shopping complex, a hotel, more than 300 vacation homes and a condominium project, which will likely cause soil erosion and increase the flow of visitors beyond the current capacity of the site (IDS, 1988; Voon & Teh, 1992).

The negative impacts on the environment could be mitigated if the proposed development is limited to the provision of basic facilities or accommodation facilities involving the participation of local communities such

as 'home stay' in the participating villages or the bed and breakfast concept. Without appropriate control and management, the areas in South Kinabalu will likely experience the same development trends as observed in Genting Highlands or Fraser's Hill in Peninsular Malaysia, where the excessive accommodation facilities, mainly in the form of large hotels and other tourist facilities conflicts with the environment and is ecologically destructive (Voon & Teh, 1992).

The protection of Kinabalu Park is important to the conservation of Sabah's flora and fauna and is compatible with the present nature-based tourism in the Park Headquarters. However, the continuous loss of botanically significant areas will diminish the value of the park as a whole and over-exploitation of its tourist potentialities will further produce many undesirable impacts on the environment. Moreover, there is a need to control opportunistic opening of land as capitalist interests of the area is bound to increase the real estate values, increasing the conflicts of land claims and encouraging the purchased of land and properties by affluent urban locals.

The areas around the south of Kinabalu Park will enter a new phase of development which will expose the fragile environment to a number of potential damages. The probability of committing serious environmental mistakes is great and various views have been given to avoid this pitfall (Lingham, 1990). However the kind of development promoted will depend on the resourcefulness and commitment of decision-makers at the different levels and those directly responsible for the creation of new land uses (Voon & Teh, 1992).

6.4 SUMMARY

The primary objective of both parks, Taman Negara and Kinabalu Park is the preservation of nature. However, tourism and low impact recreation is encouraged since it generates income and has less adverse environmental impacts relative to other land uses such as logging, mining and construction of dams. Tourism also reinforces the preservation objective and increases the awareness of protection.

The number of visitors to both parks has increased steadily, the visitors figure for Kinabalu Park and Taman Negara in 1995 were 214,350 and 43,441 respectively. Approximately half of the visitors to Taman Negara are foreigners while in Kinabalu Park, locals account for almost ninety percent of the total number. Majority of visitors to Taman Negara are overnight visitors, while in Kinabalu Park, due to its easy access, day visitors account for more than half of the total number.

In Taman Negara visitors facilities are concentrated at the Kuala Tahan Complex, while in Kinabalu Park, facilities are focused at the Park Headquarters and to a lesser extent at Poring. Since both parks covers an extensive area, new sites are being proposed for development to ease the pressure on the main attraction areas.

The management of Taman Negara is under the jurisdiction of DWNP (Department of Wildlife and National Parks), responsible to the Ministry of Science, Technology and the Environment, a federal agency. Kinabalu Park is managed by Sabah Parks Board of Trustees, under the Ministry of Tourism and Environmental Development, a state agency. The different institutional and management structures of both parks have implications on the type and quality of services provided and their access to park's income.

The development of tourism in Taman Negara has generated many economic benefits such as foreign exchange earnings, employment opportunities for the local communities and infrastructure improvements. However, the park's revenue from tourism, mainly in the form of user fees does not stay in the park, it is either credited to the state or federal government depending on the type of user fees. The access to financial facilities and support is therefore restricted. In Kinabalu Park, all funds collected from user fees, concession fees, fine from offences and profit from investments stays in the 'Park Fund' which is utilised for the development of Kinabalu Park or other parks in Sabah.

Accommodation facilities, restaurants, park guides and certain boat transfer services in Taman Negara are leased to Taman Negara Resort (TNR), the private concessionaire managed by Singapore Mandarin International Hotels and Resorts (SMI). In Kinabalu Park, accommodation facilities are managed by the park itself while the restaurants, souvenir shops and transportation services are leased to KOKTAS, a cooperative whose members are the staff of Sabah Parks. Since KOKTAS is managed by annually elected committee members who are often staff of Kinabalu Park implies that Kinabalu Park indirectly has a control over KOKTAS. Moreover since KOKTAS provides many benefits to its members, it encourages cooperation between park's staff and KOKTAS.

The local communities living in the vicinity of Taman Negara are mostly Malays, while in Kinabalu Park, the surrounding villages are mainly inhabited by Dusuns. After the establishment of the parks, access to park resources are prohibited. Most of the local communities are involved in agriculture and in Taman Negara fishing is also an additional source income. Local communities from both parks still pilfer park resources but the practice have declined due to greater enforcement and the decline of valuable resources on the park's peripheries. Tourism has provided has provided job opportunities for the local communities. This will be examined further in Chapter 7 and 8.

Chapter Seven

TAMAN NEGARA: ANALYSES OF VISITORS, LOCAL COMMUNITIES AND PARK MANAGER QUESTIONNAIRES

7.1 INTRODUCTION

This chapter on analysis is divided into three parts. The first part presents the findings from the questionnaire (Appendix D) distributed to visitors in the park during the study period (refer Chapter 5). The analysis of the visitors survey addresses the first five objectives of the study and the seven propositions associated with it. The second part of the chapter discusses the analysis of the local communities, based on the questionnaire reproduced in Appendix E and the park manager's questionnaire reproduced in Appendix F. It will examine the sixth and seventh objectives of the study and propositions eight and nine. The third part presents a summary of the findings and highlights strategy implication for DWNP in the development of tourism in Taman Negara.

7.2 ANALYSIS OF VISITORS

There were 484 usable responses to the survey, obtained by the method explained in Chapter five. The analysis will discuss the socio-demographic and trip characteristics of visitors; their perception of the facilities, services, and user fees; and visitors overall expenditure and experience in the park.

Profile of Respondents

The first section of the analysis details the characteristics of respondents using descriptive statistics and is associated with the first objective of the study.

Objective One: To investigate the socio-demographic profile of visitors to Taman Negara.

To investigate the above objective, proposition one was put forward. The analysis is based on answers given to questions related to the country of residence, gender, age group, educational level and income.

Proposition One: Certain socio-demographic characteristics can be associated with local and foreign visitors.

To examine proposition one, respondents were grouped into local and foreign visitors (Table 7.1). The results reveal that 226 (46.9%) of the respondents are Malaysian, while there are 258 (53.1%) foreigners. The chi-square (χ^2) test was applied to determine the presence of association or relationship among the two groups of visitors with the identified socio-demographic characteristics. The level of significance of the chi-square employed for the proposition were 0.1% and 1.0%. The chi-square (χ^2) test was not applied on the income of visitors because of the different currencies involved.

Table 7.1 shows the socio-demographic characteristics in percentages for local and foreign visitors, the calculated chi-square value for each characteristic and its probability value between local and foreign visitors. The findings shows the presence of association in four out of the five characteristics. There is a very significant ($p \leq 0.001$) relationship among local and foreign visitors in gender ($\chi^2 = 11.126$, $p = 0.000$), age group ($\chi^2 = 32.570$, $p = 0.000$), occupation ($\chi^2 = 37.099$, $p = 0.000$) and educational level ($\chi^2 = 96.481$, $p = 0.000$), while a more significant ($p \leq 0.01$) relationship with membership ($\chi^2 = 7.067$, $p = 0.007$). Although there is a very significant relationship among local and foreign visitors with the socio-demographic characteristic associated with occupation, the

Table 7.1 Demographic Characteristics of Respondents (N = 484)

Descriptions	total	Local	Foreign	χ^2 - value	p-value
1. Respondents	484	226	258		
2. Gender				11.126	0.000 ^a
• male	57.0	65.0	50.0		
• female	43.0	35.0	50.0		
3. Age group				32.570	0.000 ^a
• below 20	5.8	3.5	7.8		
• 20 - 29	50.4	55.4	46.1		
• 30 - 39	25.8	30.1	22.1		
• 40 - 49	11.6	10.6	12.4		
• 50 - 59	5.8	0.4	10.5		
• 60 and above	0.6	-	1.2		
4. Occupation				*37.099	0.000 ^a
• student	21.1	20.4	21.7		
• unemployed	1.2	-	2.3		
• homeduty	2.9	2.7	3.1		
• retired/pensioner	0.4	-	0.8		
• self-employed	5.8	6.6	5.0		
• general worker	12.2	15.9	8.9		
• clerical/supervisory	21.9	29.2	15.5		
• executive/managerial	27.3	22.1	31.8		
• professional	6.4	2.7	9.7		
• nil	0.8	0.4	1.2		
5. Educational level				96.481	0.000 ^a
• lower secondary	16.9	31.4	4.3		
• upper secondary	15.9	19.0	13.2		
• diploma	23.3	26.1	20.9		
• university degree	43.8	23.5	61.6		
6. Membership				7.067	0.007 ^b
• no	86.8	91.2	82.9		
• yes	13.2	8.8	17.1		
7. Gross annual income ¹	<i>n</i> = 349	<i>n</i> = 170	<i>n</i> = 179		
• below 10,000		38.2	7.8		
• 10,000 - 29,999		39.4	27.4		
• 30,000 - 49,999		16.5	45.8		
• 50,000 - 89,999		4.1	14.0		
• 90,000 and above		1.8	5.0		

Notes :

¹ income for locals is in RM, while foreigners is in USD (USD1.00 = RM2.50 approx.)^a significant at 0.1%; ^b significant at 1.0%*n* = number of respondents answering that part of the question* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

relationship however is invalid since the minimum expected frequency (f_m) is less than 1 and cells with expected frequency of below 5 (f_e) is more than 20%.

The results indicate that half of foreign visitors are females compared to only 35% among local visitors. There are more locals in the 20-29 and 30-39 age group, while more foreigners in the 40-49, 50-59 and above 60 age group. With regard to the occupation of the two groups of visitors, a high proportion of local visitors are employed in the clerical/supervisory category (29.2%), while one out of three foreign respondents are in the executive/managerial category.

Generally, foreign visitors have a higher level of education compared to local visitors. Three out of five foreign visitors (61.6%) has a university degree compared to around one out of five local visitors (23.5%). The lower secondary category has the highest number of local respondents (31.4%), while this same category has the least number of foreign respondents (4.3%). To obtain further insight on the characteristics of visitors to Taman Negara, respondents were required to indicate if they are members of any organisation involved in conservation, natural history or outdoor activities. As inferred from the results, there are more foreign visitors (17.1%) who are members of such organisations compared to local visitors (8.8%).

Overall, there tend to be more male local visitors, less locals in the higher age category group, majority having lower secondary education level, and less are members of the related organisations. Thus the proposition that certain socio-demographic characteristics can be associated with local and foreign visitors is supported.

Trip Characteristics

The second section of the analysis details the trip characteristics of local and foreign respondents and is related to the second objective of the study.

Objective Two: To examine visitors trip characteristics and identify how these characteristics differ among local and foreign visitors.

In order to examine the second objective, proposition two was put forward. The analysis is based on questions related to visitors travel arrangement, who were they travelling with, type of accommodation utilised and number of days in the park. To see if there is any motivational differences between local and foreign visitors, information related to reasons for visiting the park and activities undertaken in the park were sought from visitors.

Proposition Two: Certain trip characteristics can be associated with local and foreign visitors.

Respondents were grouped into local and foreign visitors (Table 7.2). The chi-square (χ^2) test was applied and the level of significance employed for the proposition was 0.1%.

Table 7.2 shows the trip characteristics in percentages for local and foreign visitors, the calculated chi-square value for each characteristic and its probability value between local and foreign visitors. The results shows there is a relationship in three out of the four trip characteristics.

A very significant ($p \leq 0.001$) relationship is present in the travel mode, style of travelling and type of accommodation utilised by the two groups of visitors. There are more foreign visitors on package tours (38.8%) compared to local visitors (21.2%). Majority of local visitors travelled in group (59.3%) compared to foreign visitors (18.6%). Travelling with a friend/partner is the most common style of travelling

Table 7.2 Trip Characteristics of Respondents (N = 484)

Descriptions	Total	Local	Foreign	χ^2 - value	p-value
1. Respondents	484	226	258		
2. Travel mode				17.421	0.000 ^a
• non-package tour	69.4	78.8	61.2		
• package tour	30.6	21.2	38.8		
3. Travelling...				85.395	0.000 ^a
• with a friend/partner...	43.4	29.2	55.8		
• in a group	37.6	59.3	18.6		
• as a family	14.0	8.8	18.6		
• alone	5.0	2.7	7.0		
4. Type of accommodation				71.613	0.000 ^a
• chalet	36.4	29.2	42.6		
• hostel	26.4	26.1	26.7		
• camping	20.5	33.2	9.3		
• private	7.2	5.3	8.9		
• guesthouse	5.6	1.3	9.3		
• others (hides)	3.7	4.5	3.2		
• nil	0.2	0.4	-		
5. Days in the park				7.690	0.103
• day trip	0.2	0.4	-		
• 2 nights and less	44.4	42.5	46.1		
• 3 - 5 nights	49.8	48.7	50.7		
• 6 nights and more	5.6	8.4	3.2		

Notes :

^a significant at 0.1%

among foreigners (55.8%) compared to locals (29.2%). One out every three local respondents (33.2%) camped, compared to one out of every ten foreign respondents (9.3%). The most popular type of accommodation among foreign visitors is chalet (42.6%) and there is a relatively similar number of local and foreign visitors staying in hostels. There is no relationship between local and foreign visitors towards their duration of stay in the park.

Foreign visitors therefore are more likely to be on package tours, travelling with a partner/spouse and staying in chalets. Thus the proposition that certain trip characteristics can be associated with local and foreign visitors is supported.

Table 7.3 provides insight on why visitors visit the park and the activities undertaken while in the park. Overall, the three main reasons for visiting the park are because of its flora and fauna (57.0%), adventure (56.6%) and landscape/scenery (52.5%). More than half of the local respondents (55.8%) cited adventure and one out every three indicated flora and fauna, landscape/scenery, well known/famous and diversion from urban vacation as their reasons for visiting the park. The most prevalent reason for foreign respondents is flora and fauna (76.7%), followed by landscape/scenery (69.0%) and adventure (57.4%).

Trail walking is the most common activity undertaken by both local (90.7%) and foreign (96.5%) visitors. Boat ride, swimming, bird watching, botanical and learning about nature are activities which are more prominent among foreign visitors, while relaxation, hiking to Mt. Tahan and attending seminars are more popular among local visitors.

Table 7.3 Motivations and Activities of Visitors

Descriptions	Total	Local	Foreign
<i>1. Respondents</i>	484	226	258
<i>2. Reason(s) in choosing to visit this park....</i>			
• flora and fauna	57.0	34.5	76.7
• adventure	56.6	55.8	57.4
• landscape/scenery	52.5	33.6	69.0
• well known/famous	32.4	33.2	31.8
• diversion from urban vacation	30.8	31.9	29.8
• it was in the itinerary	8.3	7.5	8.9
• short travel time	4.8	7.1	2.7
• others	11.2	19.5	3.9
<i>2. Activities undertaken...</i>			
• trail walking	93.8	90.7	96.5
• boat ride	71.1	63.3	77.9
• wildlife watching	65.5	62.4	68.2
• photography	63.6	64.6	62.8
• swimming	56.4	49.6	62.4
• relaxation	47.1	58.4	37.2
• birdwatching	41.5	38.1	44.6
• botanical	28.5	16.8	38.8
• learn about nature	22.3	15.0	28.7
• hiking to Mt Tahan	4.5	7.5	1.9
• others (seminars)	11.2	19.5	3.9

Foreign Visitors to Taman Negara

The third section of the analysis discusses issues relating to foreign visitors in Taman Negara. It will address the third objective of the study, and propositions three and four. There are 258 (53.1%) foreign respondents. A breakdown of the visitors country of residence is revealed in Table 7.4. Singaporeans are the largest foreign respondents (8.1%), followed by respondents from United Kingdom (7.4%) and Germany (7.0%). Respondents were then grouped into regions based on MTPB's classification. The Western Europe region has the largest number of respondents (17.7%), followed by Northern Europe (14.6%) and ASEAN (8.1%).

Objective Three: To examine foreign visitors socio-demographic characteristics, trip characteristics, main sources of information, the importance of protected areas and determine if these attributes differ among visitors from different regions.

Proposition three will investigate if there is any dependency in the various demographic and trip characteristics of foreign visitors from different regions, while proposition four will examine if foreign visitors to Taman Negara visit Malaysia because of its protected areas.

Proposition Three: Certain socio-demographic and trip characteristics can be associated with foreign visitors from different regions.

Table 7.5 and 7.6 present the socio-demographic and trip characteristics of foreign visitors from different regions. Chi-square test (χ^2) was applied to the different groups of foreign visitors with the identified demographic and trip characteristics. The level of significance of the chi-square employed for the proposition were 0.1%, 1.0% and 5.0%.

Table 7.4 Characteristics of Visitors to Taman Negara (N = 484)

Country of Origin	<i>n</i>	%	Region ¹	%
Malaysia	226	46.9	Malaysia	46.9
Singapore	39	8.1	ASEAN	8.1
Hong Kong	1	0.2	Eastern Asia	1.0
Japan	4	0.8		
Canada	1	0.2	Northern America	4.7
USA	22	4.5		
Australia	26	5.4	Oceania	5.8
New Zealand	2	0.4		
Denmark	17	3.5	Northern Europe	14.6
Finland	2	0.4		
Norway	2	0.4		
Sweden	14	2.9		
United Kingdom	36	7.4		
Belgium	4	0.8	Western Europe	17.7
France	14	2.9		
Germany	34	7.0		
Italy	4	0.8		
Netherlands	20	4.1		
Switzerland	10	2.1		
Nepal	2	0.4	others	1.2
Pakistan	1	0.2		
South Africa	3	0.6		
	484	100.0		100.0

Note :

¹ Respondents are group into regions based on MTPB classification for international visitors

Table 7.5 Socio-demographic Characteristics of foreign visitors to Taman Negara

Descriptions	total	Asean					East Asia		Oceania	North America		North Europe	West Europe	others	χ^2 -value	p-value
		39	5	28	23	71	86	6								
respondents	258															
Gender																
• male	50.0	46.2	60.0	46.4	39.1	46.5	55.8	83.3							5.842	0.441
• female	50.0	53.8	40.0	53.6	60.9	53.5	44.2	16.7								
Age group																
• below 20	7.8	7.7	-	17.9	8.7	4.2	8.1	-								
• 20 - 29	46.1	66.7	-	21.4	65.2	52.1	37.2	50.0								
• 30 - 39	22.1	17.9	100.0	10.7	8.7	23.9	26.7	-								
• 40 - 49	12.4	5.1	-	32.1	8.7	12.7	10.5	16.7								
• 50 - 59	10.5	2.6	-	17.9	8.7	7.0	14.0	33.3								
• 60 and above	1.2	-	-	-	-	-	3.5	-								
Occupation																
• executive/managerial	31.8	30.8	60.0	14.3	30.4	29.6	37.2	50.0								
• student	21.7	20.5	-	17.9	21.7	28.2	20.9	-								
• clerical/supervisory	15.5	25.6	20.0	17.9	13.0	16.9	10.5	-								
• professional	9.7	5.1	-	10.7	17.4	4.2	11.6	50.0								
• general worker	8.9	15.4	-	17.9	13.0	8.5	3.5	-								
• self-employed	5.0	2.6	-	14.3	-	7.0	3.5	-								
• homeduty	3.1	-	-	-	4.3	1.4	7.0	-								
• unemployed	2.3	-	-	7.1	-	2.8	2.3	-								
• retired/pensioner	0.8	-	-	-	-	-	2.3	-								
• nil	1.2	-	20.0	-	-	1.4	1.2	-								
Education level																
• university degree	n = 258	n = 39	n = 5	n = 28	n = 23	n = 71	n = 86	n = 6								
• diploma	61.6	43.6	40.0	50.0	87.0	60.6	67.4	83.3								
• upper secondary	20.9	23.1	40.0	32.1	4.3	23.9	17.4	16.7								
• lower secondary	13.2	12.8	20.0	17.9	8.7	14.1	12.8	-								
• nil	4.3	20.5	-	-	-	1.4	2.3	-								
Gross annual income (USD)																
• below 10,000	n = 179	n = 28	n = 4	n = 20	n = 19	n = 46	n = 56	n = 6								
• 10,000 - 29,999	7.8	39.3	-	-	-	-	-	50.0								
• 30,000 - 49,999	27.4	46.4	-	35.0	31.6	28.3	17.9	-								
• 50,000 - 89,999	45.8	14.3	100.0	50.0	36.8	52.2	53.6	50.0								
• 90,000 and above	14.0	-	-	10.0	21.1	19.6	17.9	-								
• nil	5.0	-	-	5.0	10.5	-	10.7	-								

Notes :

^a significant at 0.1%, ^b significant at 5.0%, *n* = number of respondents answering that part of the question

* invalid as its minimum expected frequency (f_{\min}) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

From Table 7.5, it can be observed that a very significant ($p \leq 0.001$) relationship among foreign visitors from different regions with demographic characteristics associated with age group ($\chi^2 = 65.860$, $p = 0.000$), education level ($\chi^2 = 43.660$, $p = 0.000$) and gross annual income ($\chi^2 = 96.332$, $p = 0.000$). A significant ($p \leq 0.05$) relationship is observed in occupation ($\chi^2 = 78.981$, $p = 0.014$), while there is no relationship in the demographic characteristic associated with gender. However all the relationships among foreign visitors from different regions associated with age group, education, gross annual income and occupation are considered invalid since their chi-square (χ^2) values do not conform to the general rules.

There are more respondents from ASEAN, North America and North Europe in the 20-29 age category compared to respondents from West Europe and Oceania. A significant number of respondents from the regions of North America (87.0%), West Europe (67.4%) and North Europe (60.6%) have a university degree compared to respondents from East Asia (40.0%), ASEAN (43.6%) and Oceania (50.0%). Generally respondents from all other regions have a higher income compared to visitors from ASEAN. The most common annual income, with the exception of ASEAN is in the USD30,000 - 49,999 category.

In Table 7.6, a very significant ($p \leq 0.001$) relationship is observed with trip characteristics associated with first or repeat visitors ($\chi^2 = 120.204$, $p = 0.000$), purpose of visit to Malaysia ($\chi^2 = 149.670$, $p = 0.000$), and sources of information used ($\chi^2 = 182.600$, $p = 0.000$); and a significant relationship ($p \leq 0.05$) on type of accommodation ($\chi^2 = 51.592$, $p = 0.044$). However, with the exception of the trip characteristic associated with first or repeat visitors, all the other relationships are

Table 7.6 Trip Characteristics of foreign visitors to Taman Negara

Descriptions	total	Asean	East Asia	Oceania	North America	North Europe	West Europe	others	χ^2 -value	p-value
respondents	258	39	5	28	23	71	86	6		
First trip to Malaysia?									120.204	0.000 ^a
• yes	71.7	-	80.0	71.4	78.3	87.3	88.4	83.3		
• no	28.3	100.0	20.0	28.6	21.7	12.7	11.6	16.7		
Days in Malaysia (median)	14.0	5.0	8.00	13.0	18.0	14.0	21.0	14.0		
Purpose of visit to Malaysia									*149.670	0.000 ^a
• holiday	90.3	82.1	100.0	92.9	91.3	95.8	91.9	33.3		
• vfr	6.6	17.9	-	7.1	4.3	4.2	4.7	-		
• business	1.9	-	-	-	4.3	-	3.5	16.7		
• conference	1.2	-	-	-	-	-	-	50.0		
Source of information									*182.600	0.000 ^a
• published sources	43.8	2.6	60.0	64.3	52.2	52.2	55.3	33.3		
• travel agencies	29.7	52.6	20.0	17.9	26.1	26.1	20.0	16.7		
• friends/relatives	23.4	44.8	20.0	10.7	21.7	21.7	23.5	-		
• Tourism Malaysia	1.2	-	-	3.6	-	-	1.2	-		
• others (conference)	1.9	-	-	3.6	-	-	-	50.0		
Days in Taman Negara									14.398	0.702
• 2 nights or less	47.8	56.4	60.0	42.9	30.5	47.9	45.3	83.3		
• 3 - 5 nights	50.8	38.5	40.0	57.1	65.2	50.7	53.5	16.7		
• 6 nights or more	1.9	5.1	-	-	4.3	1.4	1.2	-		
Type of accommodation									*51.592	0.044 ^b
• chalet	42.6	35.9	20.0	41.9	65.2	36.6	41.9	50.0		
• hostel	26.7	41.0	40.0	24.4	8.7	32.4	24.4	16.7		
• camping	9.3	10.3	20.0	11.6	4.3	11.3	11.6	-		
• guesthouse	9.3	7.7	-	25.0	4.3	4.2	7.0	33.3		
• private	8.9	-	-	12.8	17.4	9.9	12.8	-		
• others (hide)	3.2	5.1	-	-	-	5.6	2.3	-		

Notes :

^a significant at 0.1%, ^b significant at 5.0%* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

invalid since $f_e < 1$ and $f_m > 20\%$.

In Table 7.7, there is very significant ($p \leq 0.001$) relationship with 'other' characteristics associated with the agreement of two-tier fees ($\chi^2 = 45.246$, $p = 0.000$) among foreign visitors. There is a more significant relationship ($p \leq 0.01$) with the trip characteristic associated with the intention of foreign visitors to visit other protected areas ($\chi^2 = 25.952$, $p = 0.010$); and a significant relationship ($p \leq 0.05$) associated with influence of protected areas ($\chi^2 = 49.365$, $p = 0.014$), and members of related organisations ($\chi^2 = 16.244$, $p = 0.012$). However, only the relationships among foreign visitors from different regions associated with the agreement of two-tier fees and membership are valid since their f_m and f_e values conform to the general rules.

The median was used to measure the duration of stay of foreign visitors in Malaysia. It is a better measure of central tendency compared to mean or average in cases where the possibility of extreme values might exist. The length of stay of respondents from West Europe (21 days), North America (18 days) are much longer compared to respondents from ASEAN (5 days) and East Asia (8 days).

All respondents from ASEAN are repeat visitors, while majority of respondents from all other regions are visiting Malaysia for the first time. Most visitors from all regions cited holiday as their main purpose of visit, while visiting friends and relatives (VFR) is highest among ASEAN visitors (17.9%).

Published sources is the most prevalent source of information used by foreign visitors from all regions, with the exception of ASEAN in

Table 7.7 'Other' Characteristics of visitors to Taman Negara

Descriptions	total	Asean	East Asia	Oceania	North America	North Europe	West Europe	others	χ^2 -value	p-value
respondents	258	39	5	28	23	71	86	6		
Agree to 'two-tier' fee	52.3 47.7	92.3 7.7	40.0 60.0	71.4 28.6	47.8 52.2	35.2 64.8	47.7 52.3	- 100.0	45.246	0.000 ^a
Membership	82.9 17.1	92.3 7.7	100.0 -	64.3 35.7	69.6 30.4	80.3 19.7	89.5 10.5	83.3 16.7	16.244	0.012 ^c
Influence of protected area	9.7 16.7 23.3 28.3 11.6 10.5	15.4 28.2 12.8 15.4 7.7 20.5	- - 40.0 40.0 20.0 -	7.1 17.9 10.7 42.9 17.9 3.6	4.3 13.0 30.4 21.7 26.1 4.3	8.5 12.7 32.4 19.7 9.9 16.9	10.5 17.4 23.3 37.2 7.0 4.7	16.7 - - 33.3 33.3 16.7	*49.365	0.014 ^c
Visit other protected areas	64.5 25.4 10.2	92.3 5.1 2.6	100.0 - -	50.0 42.9 7.1	52.2 26.1 21.7	59.4 29.0 11.6	61.6 26.7 11.6	66.7 33.3 -	*25.952	0.010 ^b

Notes :

^a significant at 0.1%, ^b significant at 1.0%, ^c significant at 5.0%* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

planning for their travel to Taman Negara. Sources of information for ASEAN respondents are mainly from travel agencies (52.6%) and friends/relatives (44.8%). There is only a small number of visitors from Oceania (3.6%) and West Europe (1.2%) which have utilised Tourism Malaysia overseas offices as their source of information. Since there is an association among foreign visitors from different regions in only 3 out of the 14 socio-demographic and trip characteristics, the proposition that certain demographic and trip characteristics can be associated with foreign visitors from different regions is not entirely supported.

To further explore the socio-demographic and trip characteristics of foreign visitors, they were divided into two groups, package and non-package (independent) tours. Table 7.8 and 7.9 show the socio-demographic and trip characteristics of foreign visitors based on their mode of travel.

A very significant ($p \leq 0.001$) relationship is present in the socio-demographic characteristics associated with age group ($\chi^2 = 28.396$, $p = 0.000$), gross annual income ($\chi^2 = 18.202$, $p = 0.001$), and trip characteristics associated with source of information ($\chi^2 = 118.146$, $p = 0.000$) and accommodation in Taman Negara ($\chi^2 = 61.600$, $p = 0.000$). A significant ($p \leq 0.05$) relationship exist for the socio-demographic characteristic associated with the educational level ($\chi^2 = 7.868$, $p = 0.048$) and the trip characteristic associated with first or repeat visit to Malaysia ($\chi^2 = 6.099$, $p = 0.013$). However, the relationship among package and non-package visitors associated with the trip characteristic of first or repeat visit to Malaysia is invalid since the f_m and f_e values do not conform to the general rules.

Table 7.8 Socio-demographic Characteristics of Foreign Visitors by Mode of Travel (N = 258)

Descriptions	package	non-package	χ^2 - value	p-value
1. Respondents	100	158		
2. Gender			0.065	0.798
• male	49.0	50.6		
• female	51.0	49.4		
3. Age group			28.396	0.000 ^a
• below 20	6.0	8.9		
• 20 - 29	36.0	52.5		
• 30 - 39	18.0	24.7		
• 40 - 49	22.0	6.3		
• 50 - 59	18.0	5.7		
• 60 and above	-	1.9		
4. Educational level			7.868	0.048 ^c
• lower secondary	7.0	2.5		
• upper secondary	17.0	10.8		
• diploma	24.0	19.0		
• university	52.0	67.7		
5. Gross annual income (USD)	<i>n</i> = 77	<i>n</i> = 102	18.202	0.001 ^a
• below 10,000	12.0	2.0		
• 10,000 - 29,999	17.0	31.4		
• 30,000 - 49,999	28.0	52.9		
• 50,000 - 89,999	14.0	10.8		
• 90,000 and above	6.0	2.9		
• not applicable	33.0	-		
6. Occupation	<i>n</i> = 100	<i>n</i> = 158	23.746	0.004 ^b
• executive/managerial	34.0	30.4		
• student	13.0	27.2		
• clerical/supervisory	19.0	13.3		
• professional	11.0	8.9		
• general worker	9.0	8.9		
• self-employed	7.0	3.8		
• homeduty	7.0	0.6		
• unemployed	-	3.8		
• retired/pensioner	-	1.3		
• nil	-	1.9		

Notes :

^a significant at 0.1%, ^b significant at 1.0%; ^c significant at 5.0%;
n = number of respondents answering that part of the question

Table 7.9 Trip Characteristics of Foreign Visitors by Mode of Travel (N = 258)

Descriptions	package	non-package	χ^2 - value	p-value
1. Respondents	100	158		
2. First trip to Malaysia?			*6.099	0.013 ^b
• yes	63.0	77.2		
• no	37.0	22.8		
3. Purpose of visit to Malaysia			7.767	0.051
• holiday	91.0	89.9		
• business	4.0	0.6		
• vfr	3.0	8.9		
• conference	2.0	0.6		
4. Influence by NP			6.121	0.294
• not applicable	8.0	12.0		
• not important	9.0	10.1		
• somewhat important	21.0	13.9		
• moderately important	28.0	20.4		
• important	23.0	31.6		
• very important	11.0	12.0		
5. Source of information			118.146	0.000 ^a
• travel agencies	67.0	5.7		
• friends or relatives	9.0	32.5		
• published sources	19.0	59.2		
• Tourism Malaysia	1.0	1.3		
• others	4.0	1.3		
6. Reason to visit TN				
• flora and fauna	73.0	79.1		
• landscape/scenery	65.0	71.5		
• adventure	59.0	56.3		
• well known/famous	33.0	31.0		
• as a diversion...	27.0	31.6		
• in the itinerary	22.0	-		
• short travel time	3.0	3.1		
• others	2.0	5.0		
7. Accommodation in TN			61.600	0.000 ^a
• private	-	13.9		
• hostel	22.0	29.7		
• chalet	69.0	25.9		
• camping	-	15.2		
• guesthouse	7.0	10.8		
• hides	-	4.5		

Notes :

^a significant at 0.1%, ^b significant at 5.0%

* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

As inferred from the findings, those on non-package tours are more likely to be in the younger age groups compared to those on package tours. More than half (52.5%) of foreign respondents on non-package tours are in the 20-29 age category, while one in every five of those on package tours are in the 40-49 age group. Respondents who are travelling independently have a higher level of education compared to those on package tours, with majority of respondents (67.7%) having a university degree. More than half (52.9%) of respondents on non-package tours have gross annual income between USD30,000-49,000 compared to only 28% of those on package tours.

There are more first-time visitors (77.2%) among independent travellers compared to those on package tours (63.0%). Travel agencies (67%) is the main source of information used by respondents on package tours in planning their trip to Taman Negara, while published sources (59.2%) is predominant among independent travellers. The type of accommodation utilised by those on package tours are more likely to be chalet (69%) while hostel (29.7%) is more common among independent travellers.

Boo (1990) in her study on protected areas in Latin America and Caribbean had conducted visitor surveys at airports to determine the extent of influence a country's protected areas has in determining visitors decision to visit the country. The selection of answers given were: main reason, important, somewhat important and not important. In Ecuador, 52% of the respondents indicated protected areas is the main reason, followed by Mexico (24%), Costa Rica (14%), Dominica (13%) and Belize (8%). Generally, the study indicates there is a strong influence of protected areas in influencing visitors decision to visit the respective countries.

Proposition four was put forward in order to gain further understanding on the importance of protected areas to foreign visitors in Taman Negara and to what extent it influences their decision to visit Malaysia.

Proposition Four: Foreign visitors to the park visit Malaysia because of its protected areas.

As evidenced in Table 7.7, only 11.6% of foreign visitors to Taman Negara cited protected areas as a very important factor in influencing their decision to visit Malaysia. The highest is visitors from the North America region (26.1%) stating it is a 'very important' influence, while visitors from ASEAN has the highest response (15.4%) in terms of protected areas being 'not important' in influencing their decision to visit Malaysia. Hence, the proposition of foreign visitors to the park visit Malaysia because of its protected areas is not entirely supported.

To further explore the influence of protected areas, visitors were asked to indicate if they have visited or will be visiting other protected

Table 7.10 Other Protected Areas Visited by Foreign Visitors

Destination(s)		maybe (n = 16)	yes (n = 64)
Peninsular Malaysia	• Pulau Redang Marine Park	43.8	27.7
	• Kuala Selangor Nature Park	12.5	15.9
	• FRIM, Kepong	-	12.5
	• Endau Rompin Park	12.5	9.4
Sabah	• Kinabalu Park	6.3	41.3
	• Tunku Abdul Rahman Park	-	15.9
	• Sepilok, Sandakan	6.3	15.6
	• Turtle Island	6.3	10.9
	• Danum Valley Field Centre	-	6.3
	• Rafflesia Centre	-	6.3
Sarawak	• Bako National Park	6.3	18.8
	• Niah Caves	6.3	12.5
	• Semenggok National Park	6.3	7.8
	• Mulu National Park	6.3	4.7

Note : Responses exceed 100% due to multiple response

areas. Majority of visitors (64.5%) stated that they will not be visiting other protected areas, while 25.4% said they will and 10.2% said they might be visiting other protected areas. These results further support the findings for proposition four.

Table 7.10 shows the other protected areas which foreign visitors have/will and may be visiting. Kinabalu Park is the destination with the highest response (41.3%), followed by Pulau Redang Marine Park (27.7%).

Facilities and Services in the Park

The fourth section of the analysis will investigate the perception of visitors on the various services, facilities, features and charges imposed by the park. It will discuss the third objective of the study, and is associated with propositions five and six. Understanding visitors perception of the facilities and services provided in the park is vital since visitor is the one who creates the demand for such facilities and services. Generally, visitors to protected areas have specific interests and expect the park to provide for such services. On the other hand, the park has the responsibility of not only satisfying visitors, but also assuring facilities and services provided will protect the integrity of park's resources.

Objective Four: To evaluate visitors perception of park's facilities and services, and determine if differences in perception exist between local and foreign visitors.

To examine visitors perception of the information and interpretation services provided, proposition five was put forward.

Proposition Five: Local and foreign visitors placed different degree of importance on visitor information and interpretative services.

Visitors were asked to rate the information services (maps, trail guides, signposts, brochures, publications and checklists) and interpretative services (slides shows, guided walks, exhibit and canopy walkway) in the park. The answers are based on a 5-point Likert scale, ranging from '1' (very disappointing) to '5' (far exceeded expectation). The t-test for paired samples was used to compare the differences between sample means of local and foreign visitors, with the assumption that the scores were derived from normal distributions.

Table 7.11 Visitors' Perception of Information & Interpretation Services in Taman Negara

Descriptions	total mean ¹	Local (226)		Foreign (258)		t-value
		n	mean ¹	n	mean ¹	
Rating of...						
• Visitor interpretation	2.89	221	3.03	254	2.76	4.29 ^a
• Visitor information	2.62	221	2.82	258	2.44	5.63 ^a

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= very disappointing to 5 = far exceeded expectation

^asignificant at $p < 0.001$

Table 7.11 illustrates the findings on visitors perception of the information and interpretative services in Taman Negara. The overall total mean for information is 2.89, while the total mean for interpretation is 2.62. Generally, visitors are less satisfied (mean values < 3.00) with both the information and interpretative services. However, foreign visitors mean values are lower than local visitors. The t-test shows there is a very significant ($p < 0.001$) difference in the perceptions of foreign and local visitors towards the information and interpretative services provided in the park. The findings therefore suggest foreign visitors have higher expectations compared to local visitors.

Table 7.12 demonstrates the quality of visitor interpretative services as perceived by visitors. Quality of interpretative services are measured in terms of its 'educational', 'informative', 'stimulating' and 'entertaining' attributes. Responses are based on a 5-point Likert scale, where '1' represents 'very poor' and '5' is 'very good'. Generally, visitors did not perceived the quality of interpretation services to be good (total mean values < 3.00) as demonstrated by the total mean values on attributes related to educational (2.98), informative (2.88), stimulating (2.86) and

Table 7.12 Quality of Visitor Interpretation Services (TN)

Descriptions	total mean ¹	Local (226)		Foreign (258)		t-value
		<i>n</i>	mean ¹	<i>n</i>	mean ¹	
Quality of visitor interpretation services...						
• educational	2.98	217	3.14	245	2.85	4.05 ^a
• informative	2.88	218	3.03	245	2.75	3.64 ^a
• stimulating	2.86	208	2.97	236	2.77	2.64 ^b
• entertaining	2.79	210	2.90	237	2.70	2.72 ^b

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= very poor to 5 = very good

^asignificant at $p < 0.001$

^bsignificant at $p < 0.01$

entertaining (2.79). Mean evaluation of foreign visitors on all four attributes are lower compared to local visitors. The t-test also indicates a very significant ($p \leq 0.001$) difference occurred in the perceptions of foreign and local visitors towards the quality of interpretative services associated with the attributes of 'educational' and 'informative', while a more significant ($p \leq 0.01$) difference with the attributes of 'stimulating' and 'entertaining'.

Findings inferred from Tables 7.11 and 7.12 therefore indicate foreign visitors have a higher expectation towards the information and interpretative services provided by the park. Thus, the proposition that local and foreign visitors placed different degree of importance on visitor information and interpretative services is supported.

Table 7.13 Techniques Adopted by Taman Negara

Descriptions	total mean ¹	Local (226)		Foreign (258)		t-value
		<i>n</i>	mean ¹	<i>n</i>	mean ¹	
Techniques of communication...						
• self-guided trails	3.61	217	3.60	249	3.62	- .26
• wilderness trails	3.48	185	3.49	194	3.47	.24
• guided walks	3.44	114	3.35	174	3.51	- 1.73
• park rangers	3.30	211	3.35	220	3.25	1.33
• publication/book	2.77	223	2.88	242	2.66	2.95 ^b
• souvenirs shop	2.77	223	2.86	238	2.70	2.19
• brochures/leaflets	2.69	224	2.84	250	2.56	3.30 ^a
• maps/checklists	2.34	224	2.79	254	1.94	10.46 ^a

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= very poor to 5 = very good

^a significant at $p < 0.001$

^b significant at $p < 0.01$

To gain further insight on the services mentioned above, visitors were asked to evaluate the techniques of communication adopted by the park (Table 7.13). Overall, the evaluations on self-guided trails, wilderness trails, guided walks and park rangers are considered to be quite satisfactory (mean values > 3.0), while publication/books, souvenir shop, brochures/leaflets and maps/checklists are considered as not satisfactory (mean values < 3.0). The findings also indicate the presence of a very significant difference ($p \leq 0.001$) in the evaluations of foreign and local visitors towards brochures/leaflets and maps/checklist, while a more significant difference ($p \leq 0.01$) towards publication/books.

To examine the quality of certain selected services and features found in Taman Negara, proposition six was put forward.

Proposition Six: Differences in the degree of satisfaction exist between local and foreign visitors on certain identified services, facilities and features in Taman Negara.

Table 7.14 Evaluation of Services in Taman Negara

Descriptions	total mean	Local (226)		Foreign (258)		t-value
		<i>n</i>	mean	<i>n</i>	mean	
Satisfaction						
• tour operator	3.60	66	3.50	103	3.66	- 1.38
• park guide	3.57	85	3.42	133	3.67	- 1.88
• accommodation	3.32	210	3.25	248	3.37	- 1.39
• park staff	3.30	224	3.35	240	3.26	1.15
• meals	3.23	196	3.07	243	3.35	- 3.48 ^a
• park management	3.21	220	3.24	229	3.19	.67

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= most disappointing to 5 = most satisfying

^asignificant at $p < 0.001$

Table 7.14 provides some indications on the evaluation of visitors on certain services and facilities in Taman Negara. Generally, visitors are quite satisfied with all the services and facilities (total mean values > 3.00). Foreign visitors are more satisfied with services of tour operator, park guide, accommodation and meals, while local visitors are more satisfied with park staff and park management. However, the t-test indicates a very significant ($p \leq 0.001$) difference is only observed in the evaluations of local and foreign visitors in the service attribute related to meals.

Findings from Table 7.15 suggests that overall, visitors are satisfied with features associated with diversity of flora, accessibility, cleanliness and distribution of visitor (mean values > 3.00). They are less satisfied with features associated with wildlife sighting and access to information (mean values < 3.00). Foreign visitors are more satisfied with features related to diversity of flora, accessibility and cleanliness, while local visitors are more satisfied with distribution of visitor, wildlife sighting and access to information. Nevertheless, a very significant ($p \leq 0.001$) difference in the evaluations of local and foreign visitors is only observed in features associated with diversity of flora and access to information.

Table 7.15 Evaluation of Attraction Features

Descriptions	total mean	Local (226)		Foreign (258)		t-value
		n	mean	n	mean	
Features						
• diversity of flora	4.05	226	3.92	258	4.15	- 3.37 ^a
• accessibility	3.65	226	3.63	256	3.66	- .46
• cleanliness	3.64	226	3.60	256	3.69	- 1.33
• distribution of visitor	3.27	221	3.27	252	3.26	.11
• wildlife sighting	2.91	224	3.01	257	2.82	2.18
• access on information	2.78	226	2.98	257	2.61	4.88 ^a

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= very poor to 5 = very good

^asignificant at $p < 0.001$

Since a very significant ($p \leq 0.001$) difference is only observed in three out of the twelve identified services, facilities and features, proposition six which states that there are differences in the degree of satisfaction between local and foreign visitors with the identified attributes is not entirely supported.

Charges Imposed on Visitors

Accommodation, restaurant and park guide services are under the management of TNR, the private concessionaire in Taman Negara. The charges for entrance fee, camera fee and canopy walkway are under the management and control of DWNP.

Table 7.16 Charges in Taman Negara

Descriptions	total mean ¹	Local (226)		Foreign (258)		t-value
		<i>n</i>	mean ¹	<i>n</i>	mean ¹	
Charges in the park						
• meals	4.00	264	4.26	168	3.71	7.25 ^a
• accommodation	3.98	217	4.15	235	3.82	4.92 ^a
• park guide	3.51	148	3.68	149	3.35	3.44 ^a
• camera fee	3.22	218	3.43	250	3.04	4.62 ^a
• porters	3.18	67	3.31	46	3.00	1.95
• canopy walkway	2.61	216	2.80	224	2.43	5.23 ^a
• entrance fee	1.80	220	2.06	247	1.57	7.06 ^a
• permit to summit	n.a.	-	-	-	-	-

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= very low to 5 = very high

^asignificant at $p < 0.001$

Objective Five: To evaluate visitors perception on the charges of park's facilities, services and user fees and determine if differences in perception exist between local and foreign visitors.

Proposition seven was set up to investigate respondents perception on the various charges imposed by DWNP and TNR.

Proposition Seven: Local and foreign visitors placed different evaluations on charges imposed on services, facilities and user fees.

Table 7.16 indicates respondents perception on the various charges in Taman Negara. The total mean values are based on a 5-point Likert

scale ranging from '1' which denotes 'very low' to '5' which is 'very high'. Generally, visitors consider the charges for meals, accommodation, park guide, camera fee and porters to be relatively high (total mean values > 3.00). Charges for entrance fees and canopy walkway is considered to be relatively low (total mean values < 3.00). The mean values of local visitors on all the charges are higher compared to foreign visitors. There is a very significant ($p \leq 0.001$) difference in the evaluations of local and foreign visitors in all the charges (meals, accommodation, park guide, camera fee, canopy walkway and entrance fees) with the exception of porters. As indicated in Table 7.16, there is a difference in the mean scores for porters but it was found not to be significant, as the true difference was not detected due to its small number of respondents (Norusis, 1993).

Hence, the proposition of local and foreign visitors placed different evaluation on the charges imposed on services, facilities and user fees is supported.

An additional indication in the findings is that the charges imposed by DWNP such as entrance fees and canopy walkway with the exception of camera fees are considered as low. All the charges controlled by TNR which is related to meals, accommodation and park guide are considered as high. Higher prices may be observed when leasing is given to a private concessionaire, due to the nature and priority of such organisation.

User Fees

User fees is a major source of revenue for park management. It contributes significantly towards conservation efforts, education and interpretative facilities. With the present government policy of encouraging

efficiency and self-sufficiency among public organisations, visitors were asked if they were willing to pay higher user fees. Moreover, the entrance fee of RM1 has not been increased ever since it was introduced.

Table 7.17 Higher User Fees

Descriptions	total mean ¹	Local (226)		Foreign (258)		t-value
		n	mean ¹	n	mean ¹	
Increase fees						
• entrance fee	3.53	224	3.19	247	3.84	- 6.00 ^a
• fishing	3.11	159	2.81	128	3.49	- 4.26 ^a
• canopy walkway	2.71	222	2.51	230	2.90	- 4.11 ^a
• camera fee	2.11	222	1.94	250	2.26	- 3.72 ^a

Notes :

n = number of respondents answering that part of the question

¹ mean scores base on 5-point Likert scale ranging from 1= disagree strongly to 5 = agree strongly

^asignificant at $p < 0.001$

Findings in Table 7.17 shows visitors response towards increasing the present user fees. The 5-point Likert scale applied ranges from '1' which is 'disagree strongly' to '5' which is 'agree strongly'. Generally, visitors are more positive towards the increase of entrance fee and fishing permit (total mean values > 3.0) and are less willing towards higher charges of canopy walkway and camera fee. The mean values for all the user fees are higher among foreigners compared to local visitors. The t-test shows a very significant ($p \leq 0.001$) difference occurs in all the evaluations between local and foreign visitors, indicating a greater willingness among foreigners to pay a higher fee.

To gain further understanding on the willingness of foreigners to pay a higher user fee, respondents were asked to state their agreement on a two-tier entrance fee. Such a fee structure as mentioned in Chapter Three has successfully been practised in several other protected areas.

Table 7.18 demonstrates visitors response towards the 'two-tier' entrance fee. Majority of local visitors (82.7%) and slightly less than half (47.7%) of foreign visitors agrees to such a proposal. However, certain foreign respondents had commented that they would only support such a fee structure if the revenue collected directly benefits the park.

Table 7.18 Introducing Two-tier Fee for Visitors

Descriptions	Local (<i>n</i> = 224)	Foreign (<i>n</i> = 247)	total
• yes	82.7	47.7	64.0
• no	17.3	52.3	36.0

Visitors Expenditure

In order to understand visitors spending trend, visitors were asked to list down their expenditure on certain common items and services. Expenditure on meals, accommodation and transportation are excluded. Generally, for those on package tours, these items are already included in the price of their package. Table 7.19 illustrates the findings on the expenditure pattern of local and foreign visitors. The median was used to measure the amount of expenditure, it is a

Table 7.19 Visitors Spending in Taman Negara (RM)

Descriptions	Local (226)		Foreign (258)	
	<i>n</i>	amount ¹	<i>n</i>	amount ¹
• porters	3	300.00	9	10.00
• park guides	35	50.00	38	50.00
• t-shirts	75	20.00	46	20.00
• postcards	51	2.00	55	3.00
• books/publications	21	4.00	22	4.00
• local handicrafts	12	20.00	9	6.00
• others...	5	7.00	19	15.00

Notes :

n = number of respondents answering that part of the question

¹ this is the median amount spent

£1.00 = RM4.00 (approx.)

better measure of central tendency compared to the mean, since there is a possibility of extreme values.

Overall, visitors did not spend much. The most common item bought by local visitors is T-shirts, followed by postcards, while for foreigners it is the reverse. The lack of spending among visitors may be due to reasons such as the scarcity of items and choices especially those related to reading materials and handicraft or it may be due to the slightly higher prices of items in the park.

Table 7.20 Recommending Taman Negara to friends/relatives

Descriptions	Local (226)		Foreign (258)		total %
	<i>n</i>	%	<i>n</i>	%	
• yes	178	78.8	204	79.1	78.9
• maybe	48	21.2	46	17.8	19.4
• \neq	-	-	8	3.1	1.7

Note :

n = number of respondents answering that part of the question

Recommendation and Remarks

As indicated in Table 7.20, the majority of visitors would recommend Taman Negara to their friends or relatives (78.9%). Only a very small number of visitors (1.7%) would not recommend it and 17.8% of visitors stated that they might recommend Taman Negara to their friends and relatives. Overall, it can be assumed that majority of visitors had a satisfactory experience in Taman Negara.

The final question was an open-ended question inviting visitors to express their views on what could be done to improve the quality and experience of their visit to Taman Negara. The answers provided valuable insight and many of the remarks supported the earlier analysis. The highest number of comments were related to two main issues: information and interpretation; and accommodation.

Remarks by respondents on information and interpretation are mostly related to :

- **Maps** such as: ‘ where are the maps’; ‘no maps’; ‘lack of maps’; ‘better maps’; ‘more detail maps’; ‘better walking maps’; ‘improvement of map’; and ‘good maps, not just non-scale sketches - to assist people walking without guides’. Interestingly, there is a visitor who wrote ‘... you need to get over your paranoia of distributing good quality maps. I know they are available and I don’t think you will be over-run by hoards of marauding communists if you do so’. Taman Negara Resort (TNR) provides a map for visitors who utilised their accommodation, but the map clearly lacks the basic information required by visitors who would like to participate in activities around the Kuala Tahan complex. There are certain people who view that the simple and inadequate map provided by TNR is part of a marketing ploy to encourage the use of park guides since the management and hiring of these guides are under the control of TNR. DWNP’s (Department of Wildlife and National Parks) publication of ‘*An Illustrated Guide in the Kuala Tahan Region of Taman Negara*’ has some basic maps, but visitors are often not aware of the book and moreover, the book is frequently out of stock.
- **Difficulty of getting information** such as: ‘access to information was hard to come by’; ‘limited information’; ‘there need to be more literature available for self-guided walks’; ‘better information on hikings’; ‘more information about things to do and see’; ‘pamphlets for a small fee which could explain common birds, tress, flowers the visitors likely to see’; ‘improve visitor information/staff quality’; ‘for an individual traveller, not coming as part of an organised tour, access to information is hard’; ‘realistic information (haven’t seen a tiger or an elephant)’; ‘better information - staff hardly speaks English’; ‘improve knowledge of staff and

their willingness to help tourists'; 'staff should be more forthcoming in assisting visitors'; 'improvement in signposts'; 'better sign posting - unclear and hard to follow'; and 'better description of hides and areas'. Visitors on non package tours, without a guide often find it difficult to obtain information on Taman Negara. There is an obvious lack of appropriate documentation such as: quality brochures and pamphlets; signposts demonstrating activities visitors can participate; and information on the vegetation and fauna visitors are likely to see. The park's staff still lacks the natural history and English knowledge required to communicate effectively with visitors.

- **Interpretative centre** such as: 'improve strongly quality of slide show'; 'video is old and the quality is poor'; 'the slide show was a poorly presented and narrated video, recommend in investing professional video presentation'; 'slide show need to be stimulating, educational and adventurous - to portray the right image'; 'improve slide show and displays in visitor centre'; 'interpretative materials is only in Bahasa - no English'; 'displays in visitor centre, very naïve, uninspiring, more English explanation'; and 'the slide show was miserable, both in contents and quality'. The *interpretative centre in Taman Negara* can definitely be improved further. DWNP should realised the importance of the interpretative centre in creating a good impression of the park since the well being of the park depends on the support of visitors. It can also utilise the interpretative centre to increase public awareness of park's objectives and policies and as a tool in managing visitors. Exhibits should be bilingual (Bahasa Malaysia and English) since approximately half of the visitors to the park are foreigners. The video stilted slide show is of poor quality, an old version with many of the structures shown no longer exist.

The second category of remarks is related to accommodation, some of these are reproduced below.

- **Accommodation** such as: ‘cheaper accommodation’; ‘lower the cost of lodging and food’; ‘more economical accommodation’; ‘more medium and budget accommodation for all’; accommodation for all, not just for the rich’; ‘the chalets and houses are too expensive and the only alternative is the hostel accommodation, there is no in between’; ‘no mid-range accommodation, simple non-aircon huts would be ideal’; ‘only the chalets are comfortable’; ‘low rate chalet, so that our local people can stay in the park’; ‘better facilities at the camp site’; ‘better accommodation at Nusa Camp’ and ‘shower and toilet at Nusa Camp is beyond limit’. The fully air-conditioned chalets provided by TNR is comfortable. However, it is more suitable for the upmarket affluent visitors since their prices are too high for the budget and local visitors. The only affordable accommodation is the hostel with limited capacity and not suitable for families. There is therefore a need of more simple, middle range accommodation. *Nusa Camp, a private enterprise offering a variety of accommodation outside the park* received the most number of complaints related to the quality of accommodation and meals.

Other remarks include litter along trails and river banks, and the park being too commercialised, modernised and looks more like an expensive holiday resort. There were also suggestions that the park could charge a higher entrance fee to cover all the additional charges such as camera fee and canopy walkway. The positive remarks were mostly related to the natural beauty of the park, its landscapes and the variety of flora and fauna. There were a number of visitors on package tours who were very satisfied with the services of their guides.

7.3 ANALYSIS ON LOCAL COMMUNITIES

The second part of the analysis presents the findings on the local communities, obtained from interviews conducted in six villages within the vicinity of Kuala Tahan complex in Taman Negara, based on the questionnaire enclosed in Appendix E. It will discuss the sixth objective of the study and is associated with propositions eight and nine.

Profile of Local Communities

Table 7.21 details characteristics of the local communities. There is a total of 88 respondents representing households from the villages of Kampung Tahan, Seberang Ara, Kampung Tekah, Kampung Padang, Kampung Belebar and Kampung Tereseke (refer to Figure 6.7 for location). All the respondents are Malay, slightly more male (55.7%) than female (44.3%) and mainly in the 30-39 (29.5%) and 40-49 (27.3%) age categories.

Majority of respondents (72.7%) are married, with most of their children living with them. Almost half of the respondents (46.6%) has primary education, followed by no formal education (27.3%). The most common household income of respondents is between RM5,000 - 9,999 (44.3%).

A high proportion of respondents (71.6%) were born in their respective villages. For those who were not, 35.3% have resided for more than eleven years. More than half of the respondents (59.1%) stayed in properties which they owned.

Employment Characteristics

Table 7.22 illustrates the results on the employment characteristics of respondents, their spouse and children, which were divided into two sectors. The first is known as the 'direct' sector which include all employment which are

Table 7.21 Characteristics of Local Communities (N = 88)

Descriptions	%
<i>Gender</i>	
• male	55.7
• female	44.3
<i>Age group</i>	
• below 20	2.3
• 20 - 29	18.2
• 30 - 39	29.5
• 40 - 49	27.3
• 50 - 59	13.6
• 60 and above	9.1
<i>Race</i>	
• Malay	100.0
<i>Marital status</i>	
• single	17.0
• married	72.7
• widowed	6.8
• divorcee	3.4
<i>Number of children...</i>	
a. staying with you	
• none	21.6
• 1 - 2	25.0
• 3 - 5	38.6
• 6 and above	14.8
b. away from you	
• none	53.4
• 1 - 2	31.8
• 3 - 5	7.9
• 6 and above	6.9
<i>Education level</i>	
• no formal education	27.3
• primary	46.6
• lower secondary	4.5
• upper secondary	21.6
<i>Household income (RM)</i>	
• below 3,000	14.8
• 3,000 - 4,999	31.8
• 5,000 - 9,999	44.3
• 10,000 and above	9.1

Descriptions	%
<i>Village</i>	
• Kampung Tahan	36.4
• Seberang Ara	28.4
• Kampung Tekah	11.4
• Kampung Padang	10.2
• Kampung Belebar	8.0
• Kampung Teresek	5.6
<i>Born in this village?</i>	
• yes	71.6
• no	28.4
<i>Years of residency</i>	
• less than 1	22.7
• 1 - 3	18.3
• 4 - 10	23.7
• 11 and above	35.3
<i>Property</i>	
a. Is this your property?	
• no	40.9
• yes	59.1
b. If yes, is it...	
• family owned	35.2
• bought it	32.3
• given by government	23.7
• inherit it	8.8

considered to be directly related to tourism comprising of resort employees (TNR), park employees (DWNP), park guides, boatmen and business associated with tourism. The second sector known as the 'other' sector is related to all other employment, which include those which are indirectly influenced by tourism such as agriculture and shop assistant, and others, for example government related jobs, housewife and pensioner.

Table 7.22 Employment characteristics of respondents

Descriptions	respondent (n = 88)	spouse (n = 64)	children (n = 52)
<i>Directly related</i>			
• DWNP	12.4	9.4	9.6
• resort employee/TNR	10.2	7.8	26.9
• own business	8.0	6.3	3.8
• boatman	6.8	3.1	13.5
• park guide	1.1	-	5.7
<i>Others</i>			
• agriculture	23.9	26.6	13.5
• housewife	23.9	34.4	17.4
• pensioner	5.7	-	-
• government servant	3.4	6.2	9.6
• <i>shop assistant</i>	2.3	3.1	-
• canteen employee	2.3	3.1	-

The findings reveals a high proportion of respondents are involved in agriculture (23.9%), housewife (23.9%), staff of DWNP (12.4%), TNR (10.2%), own business (8.0%) and boatman (6.8%). As for their spouses, 34.3% are housewives, followed by agriculture (26.5%), staff of DWNP (9.4%) and TNR (7.8%). A substantial number of respondents' children are employed by TNR (26.9%), housewife (17.3%), boatmen and agriculture (both 13.5%).

It can be inferred from the findings that tourism development in Taman Negara has created more job opportunities for the local communities living in the

vicinity of the Kuala Tahan complex. A considerable number of respondents and their families are being employed by DWNP and TNR. Others such as park guides, boatmen and entrepreneurs are also directly associated with tourism, while agriculture is indirectly being influenced by tourism.

The findings also reveal a relatively high number of respondents' children are employed by TNR. This is mainly due to the nature of the job at the resort which attracts and has a preference for younger people. They are usually involved in semi-skilled jobs associated with front office, housekeeping, kitchen operations and restaurant.

To gain further insight on the employment opportunities of the local communities, proposition eight was put forward.

Proposition Eight: Certain socio-demographic characteristics of the local communities can be associated with different occupations.

To investigate proposition eight, respondents were divided into the 'direct' and 'other' sectors depending on their occupation, as discussed above. Table 7.23 shows the calculated chi-square value for each socio-demographic characteristic and the probability (p-value) of relationship between the two sectors. The findings shows the presence of a very significant ($p \leq 0.001$) relationship in age group ($\chi^2 = 22.741$, $p = 0.000$) and educational level ($\chi^2 = 22.337$, $p = 0.000$), and a significant ($p \leq 0.05$) association between the two sectors with gender ($\chi^2 = 6.216$, $p = 0.012$) and marital status ($\chi^2 = 11.088$, $p = 0.011$). Although there is a very significant relationship in age group, the relationship is invalid since its f_m and f_e values do not conform to the general rules.

Table 7.23 Socio-demographic characteristics of Local Community according to occupation

Descriptions	direct n = 33	others n = 55	χ^2 - value	p - value
<i>Gender</i>			6.216	0.012 ^b
• male	72.7	45.5		
• female	27.3	54.5		
<i>Age group</i>			*22.741	0.000 ^a
• below 20	3.0	1.8		
• 20 - 29	36.4	7.3		
• 30 - 39	36.4	25.5		
• 40 - 49	24.2	29.1		
• 50 - 59	-	21.8		
• 60 and above	-	14.5		
<i>Marital status</i>			11.088	0.011 ^b
• single	30.3	9.1		
• married	57.6	81.8		
• widowed	12.1	3.6		
• divorcee	-	5.5		
<i>Educational level</i>			22.337	0.000 ^a
• no formal education	3.0	41.8		
• primary	60.6	38.2		
• lower secondary	36.4	14.6		
• upper secondary	-	5.5		
<i>Household income (RM)</i>			6.429	0.092 ^c
• below 3,000	3.0	21.8		
• 3,000 - 4,999	39.4	27.3		
• 5,000 - 9,999	45.5	43.6		
• 10,000 and above	12.1	7.3		

Notes : ^a significant at 0.1%, ^b significant at 5.0%, ^c significant at 10.0%

* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

Those having jobs directly related to tourism are predominantly males, with educational level mostly distributed along the 'primary' and 'lower secondary' level, majority of them having household income between RM3,000 - RM9,999 and they are more likely to be unmarried compared to the 'other' sector.

The high number of males in the 'direct' sector is related to occupations such as boatmen and park guides which are monopolised by males. A small number of respondents (5.5%) in the 'other' sector has upper secondary education, these are mostly government servants related to the teaching profession.

Hence, the proposition that certain socio-demographic characteristics of the local communities can be associated with different occupations is supported.

Perceptions of Tourism Among Local Communities

As mentioned in Chapter Four, positive perception of tourism is frequently related to its *economic role*, while *negative perception* often reflect social concerns. Generation of employment is usually perceived as one of the most important benefits, while opposing views are frequently associated with crime, moral degradation and drug abuse, and to a lesser extent increase in prices of goods and its effect on the environment.

Objective Six: To explore the economic, environmental and socio-cultural impacts of tourism as perceived by the local communities.

In order to investigate the influence of tourism on the local communities, respondents were asked to indicate their level of agreement along a five-point scale: 1 (significantly improve), 2 (improve), 3 (about the same), 4 (worse), 5 (significantly worsen) on certain impacts of tourism. Table 7.24, 7.25 and 7.26

Table 7.24 Respondents Perceptions on the Economic Impact of Tourism in Taman Negara

Descriptions	total mean scores	Kampung Tahan	Seberang Ara	Kampung Tekah	Kampung Padang	Kampung Belebar	Kampung Tereseke	F - ratio
<i>Respondents</i>	88	32	25	10	9	7	5	
• employment opportunities	1.87 (0.42)	1.68 (0.47)	1.88 (0.33)	2.10 (0.31)	2.11 (0.33)	2.14 (0.37)	1.80 (0.44)	3.370 ^a
• income level	1.90 (0.44)	1.87 (0.42)	1.80 (0.40)	2.10 (0.31)	2.11 (0.33)	2.28 (0.48)	1.40 (0.54)	3.953 ^a
• standard of living	2.00 (0.40)	2.00 (0.43)	1.88 (0.33)	2.10 (0.31)	2.11 (0.33)	2.28 (0.48)	1.80 (0.44)	1.739
• infrastructures & facilities	2.25 (0.61)	2.25 (0.56)	2.04 (0.20)	2.60 (1.07)	2.33 (0.50)	2.28 (0.75)	2.40 (0.89)	1.373
• price level/inflation	3.78 (0.57)	3.62 (0.60)	4.04 (0.45)	3.50 (0.70)	4.11 (0.33)	3.85 (0.37)	3.40 (0.54)	3.424 ^a

Notes : a. Mean scores based on a 5-point Likert scale ranging from 1 =significantly improve,

3 = about the same, to 5 = significantly worsen

b. Figures in bracket denote standard deviations

^asignificant at $p < 0.01$

show the findings on the total mean values of respondents from six selected villages on the perceived economic, environmental and socio-cultural impacts of tourism.

Generally, respondents perceived the economic impacts of tourism favourably (total mean values < 3.0), with the exception of price level/inflation (3.78) (Table 7.24). The highest improvement is perceived in terms of employment opportunities (1.87), followed by income level (1.90), standard of living (2.0) and infrastructure & facilities (2.25). The F-ratio or ANOVA (analysis of variance) is utilised to illustrate if there is any significant differences in the perceptions of local communities between different villages. A very significant ($p \leq 0.001$) difference is observed between local communities from different villages in employment opportunities, income level and price level/inflation.

Overall, three villages Kampung Tahan, Seberang Ara and Kampung Teresek have perceived the improvement in employment opportunities and income level to be relatively higher compared to the other three villages (Table 7.24). Kampung Tahan is the village just opposite the Kuala Tahan Complex (Figure 6.7). Due to its close proximity to the main attraction area of Taman Negara, it is likely to realise the many economic benefits of tourism. Accommodation for DWNP's staff is located in Seberang Ara, hence all respondents from this village are either themselves staff of DWNP or their spouse are staff of DWNP, therefore benefiting from tourism.

However, respondents perceived the environmental impacts of tourism (Table 7.25) less favourably (total mean values > 3.0), with the highest perceived negative impact on wildlife (4.04), followed by water quality (3.39), traffic (3.15) and land clearing (3.13). The F-ratio indicates a very significant ($p <$

Table 7.25 Respondents Perceptions on the Environmental Impact of Tourism in Taman Negara

Descriptions	total mean scores	Kampung Tahan	Seberang Ara	Kampung Tekah	Kampung Padang	Kampung Belebar	Kampung Tereseek	F - ratio
<i>Respondents</i>	88	32	25	10	9	7	5	
• land clearing	3.13 (0.77)	3.21 (0.79)	2.96 (0.73)	2.80 (0.63)	3.11 (0.92)	3.14 (0.37)	4.20 (0.44)	2.865 ^b
• traffic	3.15 (0.62)	2.96 (0.64)	3.12 (0.60)	3.00 (0.47)	3.88 (0.33)	3.14 (0.37)	3.60 (0.54)	4.457 ^a
• water quality	3.39 (0.63)	3.56 (0.61)	3.24 (0.66)	3.60 (0.51)	3.44 (0.52)	3.42 (0.53)	2.60 (0.54)	2.795 ^b
• wildlife	4.04 (0.45)	4.15 (0.44)	3.92 (0.27)	4.00 (0.47)	3.66 (0.50)	4.14 (0.37)	4.60 (0.54)	4.301 ^a

Notes : a. Mean scores based on a 5-point Likert scale ranging from 1 =significantly improve,

3 = about the same, to 5 = significantly worsen

b. Figures in bracket denote standard deviations

^a significant at $p \leq 0.001$, ^b significant at $p < 0.05$

0.001) difference occurs between the local communities in different villages in the perceived environmental impacts associated with traffic and wildlife, and a significant ($p < 0.05$) difference in land clearing and water quality.

There is an apparent decline of wildlife, especially seladang (*Bos gaurus*) and tiger (*Pantera tigris*), with areas close to the Kuala Tahan complex being mostly affected. Littering, unsanitary toilet practices and fumes from motor boats has polluted Tembeling river to a certain extent. Local communities perceived the environmental impacts associated with land clearing and traffic to be minor since their total mean values are close to 3 ('about the same').

However, contrary to the perception of the overall respondents, respondents from Kampung Tereseke perceived there is an improvement in water quality (Table 7.25). There is a possibility of respondents assuming water quality being associated with 'drinking' water, and not the overall water quality of the area (river), since recent development in Kampung Tereseke has allowed the local community to enjoy the benefit of piped water. Similarly, respondents from Seberang Ara and Kampung Tekah have perceived land clearing favourably compared to others. This may be due to the lesser negative consequences experienced in the villages such as erosion and ad hoc development.

Table 7.26 demonstrates the results of the socio-cultural impacts of tourism as perceived by the local communities. Courtesy & hospitality to visitors (2.17) has improved with tourism, while sexual permissiveness (3.34) and alcoholism (3.25) have slightly increased. Others such as drug abuse, crime, moral, local culture and religious values are being affected to a lesser extent, as indicated by their total mean values which are close to 3 ('about the same'). The F-ratio indicates a very significant ($p < 0.001$) difference occurs in the perceptions between local communities of different villages in attributes related to courtesy & hospitality to visitors and sexual permissiveness.

Table 7.26 Respondents Perceptions on the Socio-cultural Impact of Tourism in Taman Negara

Descriptions	total mean scores	Kampung Tahan	Seberang Ara	Kampung Tekah	Kampung Padang	Kampung Belebar	Kampung Tereseek	F - ratio
<i>Respondents</i>	88	32	25	10	9	7	5	
• courtesy & hospitality to visitors	2.17 (0.57)	2.03 (0.53)	2.08 (0.27)	2.10 (0.31)	2.33 (0.50)	2.28 (0.75)	3.20 (1.09)	4.863 ^a
• drug abuse	3.07 (0.31)	3.06 (0.35)	3.04 (0.20)	3.10 (0.31)	3.11 (0.33)	3.14 (0.37)	3.20 (0.44)	0.321
• religious values	3.14 (0.53)	3.12 (0.55)	3.24 (0.43)	3.10 (0.73)	3.11 (0.33)	2.85 (0.37)	3.40 (0.89)	0.805
• crime	3.19 (0.45)	3.15 (0.44)	3.40 (0.50)	3.10 (0.31)	3.11 (0.33)	3.14 (0.37)	2.80 (0.44)	2.147
• morality	3.19 (0.47)	3.21 (0.55)	3.24 (0.43)	2.90 (0.31)	3.11 (0.33)	3.28 (0.48)	3.40 (0.54)	1.128
• local culture/tradition	3.21 (0.63)	3.25 (0.62)	3.28 (0.67)	2.90 (0.56)	3.11 (0.33)	3.14 (0.69)	3.60 (0.89)	1.003
• alcoholism	3.25 (0.50)	3.21 (0.49)	3.32 (0.47)	3.10 (0.31)	3.22 (0.66)	3.28 (0.48)	3.40 (0.89)	0.378
• sexual permissiveness	3.34 (0.52)	3.21 (0.42)	3.48 (0.50)	3.10 (0.31)	3.22 (0.66)	3.28 (0.48)	4.20 (0.44)	4.796 ^a

Notes : a. Mean scores based on a 5-point Likert scale ranging from 1 =significantly improve,

3 = about the same, to 5 = significantly worsen

b. Figures in bracket denote standard deviations

^asignificant at $p < 0.001$

Generally, the local communities perceived tourism to have created substantial economic benefits mainly in the improvement of employment opportunities and income, with inflation perceived as the only adverse economic impact. The only significant negative environmental impact perceived by local communities is on wildlife, and to a lesser extent the quality of water. The influence of tourism on the local communities' social and cultural values is minor, but growing concerns are related to issues of sexual permissiveness and alcoholism.

To further investigate if different perceptions exist among those who are directly involved with tourism and those who are not, proposition nine was proposed.

Proposition Nine: Local communities employed in different sectors placed different evaluations on the impacts of tourism

The employment sectors in the above proposition is similar to the previous analysis, where occupations of the local communities were categorised into the 'direct' and 'other' sectors.

Table 7.27 shows the total mean values of the perceived economic, environmental and socio-cultural impacts of tourism as perceived by the local communities employed in the 'direct' and 'other' sectors. The t-test shows there is a significant ($p < 0.05$) difference in perceptions of the 'direct' and 'other' sectors in only four (employment opportunities, wildlife, courtesy & hospitality and religious values) out of the seventeen attributes associated with the economic, environmental and socio-cultural impacts of tourism.

Local communities who are directly involved in tourism ('direct') perceived a higher improvement in employment opportunities, a higher

Table 7.27 Differences in Mean Scores between those Directly and Indirectly related to Tourism

Descriptions	Total mean	Direct mean	Others mean	t - value
<i>Economic impact</i>				
• employment opportunities	1.87	1.72	1.96	- 2.51 ^a
• income level	1.90	1.89	1.94	- 0.89
• standard of living	2.00	1.93	2.03	- 1.10
• infrastructures & facilities	2.25	2.30	2.21	0.63
• price level/inflation	3.78	3.75	3.80	- 0.33
<i>Environmental impact</i>				
• land clearing	3.13	3.27	3.05	1.28
• traffic	3.15	3.06	3.21	- 1.15
• water quality	3.39	3.51	3.32	1.35
• wildlife	4.04	4.18	3.96	2.24 ^a
<i>Socio-cultural impact</i>				
• courtesy & hospitality to visitors	2.17	2.00	2.27	- 2.42 ^a
• drug abuse	3.07	3.09	3.07	0.26
• religious values	3.14	3.00	3.23	- 2.04 ^a
• crime	3.19	3.24	3.16	0.79
• morality	3.19	3.09	3.25	- 1.57
• local culture/tradition	3.21	3.15	3.25	- 0.74
• alcoholism	3.25	3.21	3.27	- 0.54
• sexual permissiveness	3.34	3.30	3.36	- 0.52

Note : a. Mean scores based on a 5-point Likert scale ranging from 1 = significantly improve,

3 = about the same, to 5 = significantly worsen

^asignificant at $p < 0.05$

decline of wildlife and a higher improvement in the courtesy & hospitality to visitors compared to those who are not ('other'). However, the 'other' sector perceived tourism has deteriorated religious values while the 'direct' sector perceived tourism as having no influence on religious values. Since there is a significant difference in perceptions in only four out of the seventeen attributes, the proposition of local communities employed in different sectors placed different evaluations on the impacts of tourism is not entirely supported.

The final question was an open ended question asking the respondents if they are satisfied with the current tourism development (Appendix E). Generally, the local communities welcome tourism development in the area. Some of their views are represented below :

- more employment opportunities;
- capital and management assistance in local communities tourism ventures;
- local communities views are being considered in tourism development; and
- better infrastructures and more public facilities.

7.4 PARK MANAGER

It was unfortunate that the researcher could not have an interview with the park superintendent (park manager) of Taman Negara. The park manager's questionnaire was handed to the superintendent on the first day of the field work. This was to enable the superintendent to look over the questions since it requires certain specific data and information, and the superintendent was supposed to assign a date for the interview. However, until the end of the field survey period, even after a few reminders, and apart from a few impromptu discussions, the researcher was not able to have a proper interview based on the park manager's questionnaire. The questionnaire (Appendix F) was partially completed by the Assistant Superintendent and is described below.

Table 7.28 Number of Persons Employed by DWNP in Taman Negara, Pahang

Category	Number	Number involved with visitors
a. Management	2	-
b. Naturalist/ecologist	-	-
c. Rangers	24	-
d. Clericals	2	-
e. Casual labourers	55	-
f. others	2	-
Total	85	-

Table 7.28 shows the number of persons employed in the park based on the different categories. The park has a total of 85 employees. Majority of park's staff are employed as casual labourers (64.7%) and rangers (28.2%), and the park does not have any ecologist or naturalist. Training undertaken by park personnel involved with visitors include English courses and park interpretation. The park acknowledges that it lacks expertise, staff and financial resources to manage the

park effectively, and supports the concept of a two-tier fee structure. It also recognised that crowding/congestion is observed in the main attraction areas during peak periods. During the process of issuing entry permits, all visitors are required to complete a short form indicating their gender, age, occupation and country of residence. However, the data was not available upon request.

7.5 SUMMARY

This chapter has described the socio-demographic and trip characteristics of local and foreign visitors to Taman Negara. It has also provided insight on the perception of visitors on the user fees, facilities and services available in the park. More importantly this study has shown that there are certain socio-demographic and trip characteristics associated with local and foreign visitors. Moreover, among foreign visitors themselves there are differences in characteristics associated with those on package and non-package tours.

The findings indicate that about half of the visitors to Taman Negara are in the 20-29 age group, less locals in the higher age groups, and more females among foreign visitors. Most locals are employed in the clerical/supervisory category while foreigners in the executive/managerial category. Overall, foreign visitors have a higher level of education compared to local visitors. Three out of five foreign visitors (61.6%) have university degrees while the lower secondary category has the highest number of local respondents (31.4%).

More than half (59.3%) of local visitors travelled as a group, while travelling with a partner/spouse is more popular among foreign visitors (55.8%). Foreign visitors are more likely to be on package tours and staying in chalets. Trail walking is the most common activity undertaken by all visitors. Boat ride, wildlife watching, photography are activities undertaken by both local and

foreign visitors, swimming and bird watching are more popular among foreign visitors, while relaxation and attending seminars among local visitors.

Some underlying relationships may be discerned between foreign visitors on package and non-package tours. Visitors on non-package tours are more likely to be in the younger age groups, have a higher educational level, first-time visitors and using published sources as their source of information. The age groups of those on package tours are more evenly represented, utilising travel agencies as their main source of information and majority of them stayed in chalets.

Overall, foreign visitors to Taman Negara do not visit Malaysia mainly because of its protected areas. This is because only a small number of foreign visitors (11.6%) cited protected areas as a very important factor in influencing their decision to visit Malaysia, with the highest response from North America. Visitors from ASEAN has the highest response in terms of protected areas being 'not important' in influencing their visit. This is further supported by the findings that only a quarter of the foreign visitors have/will be visiting other protected areas in Malaysia.

Overall, both local and foreign visitors are less satisfied with the information and interpretative services in Taman Negara. However, the extent of dissatisfaction is higher among foreign visitors. This is further indicated by the less favourable perception of visitors on the quality of interpretation related to the attributes of 'educational', 'informative', 'stimulating' and 'entertaining'.

Visitors are generally satisfied with features of the park associated with diversity of flora, accessibility, cleanliness and distribution of visitors but are less satisfied with features associated with wildlife sighting and access to

information. A very significant difference occurs in the evaluation between local and foreign visitors on features associated with diversity of flora and access to information. Foreign visitors perceived the diversity of flora to be higher and the access to information relatively lower to local visitors.

Local visitors perceived the charges of facilities, services and user fees in Taman Negara to be higher compared to foreign visitors. A very significant difference occurs in the perception between local and foreign visitors in almost all the charges. Visitors are more supportive towards higher entrance fee and fishing permit and less supportive towards higher charges for the canopy walkway and camera fee. Majority of local visitors and almost half of foreign visitors agreed to the proposal of a two-tier fee structure for the entrance fee.

Comments from visitors are mostly related to two main issues: information and interpretation; and accommodation. There is a lack of quality maps, brochures, pamphlets, signposts and knowledgeable English speaking park staff that can communicate effectively with visitors. Mostly affected are visitors on non package tours, without a tourist guide. Comments on the interpretative centre are mostly related to exhibits not having bilingual explanation and the poor quality and contents of the slide show. Remarks on accommodation are mainly related to the absence of a more simple, middle range accommodation and the high accommodation charges of TNR.

The overall findings relating to the local communities in the vicinity of Taman Negara indicates that they recognised the economic benefits of tourism and its importance in increasing employment opportunities, income level, standard of living, infrastructure and facilities, while the only negative economic impact is associated with higher prices. As anticipated, those directly involved in tourism perceived a higher improvement in employment opportunities compared to those who are not.

The only significant environmental impact perceived by the local communities is the decline in wildlife, and to a lesser extent the quality of water. Although the decline in wildlife can be contributed to tourism, at the peripheries it is mainly due to poaching. The influence of tourism on the local communities' social and cultural values is minor, with the main concerns being on issues related to sexual permissiveness and alcoholism, and a slight decline in religious values perceived by those who are not directly involved with tourism. The overall results of the analyses carried out on the nine propositions are summarised in Table 7.29.

Visitors socio-demographic and trip characteristics, their levels of satisfaction, suggestions for improvement and how the local communities perceived the impacts of tourism development as discussed above have implications for the management of visitors and the overall planning of tourism in Taman Negara. Insights to DWNP who is responsible for the overall administration, management and formulation of policies for Taman Negara include :

- Understanding of users: local and foreign visitors have different characteristics. Local visitors usually travel in groups, are generally in the younger age categories, have lower educational levels, mostly males and visit the park mainly for 'adventure'. Foreign visitors usually travel with a partner, thus a more equal distribution of males and females, more highly educated, flora and fauna and landscape/scenery are the common reasons cited for visiting the park. Due to these different characteristics, there is a conflict of use to a certain extent among local and foreign visitors. Foreigners have a higher degree of appreciation for tranquillity and the opportunity to be close with nature. Moreover, activities mainly participated by foreigners such as birdwatching requires quietness, while local visitors in groups

Table 7.29 Summaries of Results of Propositions

Propositions	Descriptions	Results
One	Some socio-demographic characteristics can be associated with local and foreign visitors.	is supported
Two	Some trip characteristics can be associated with local and foreign visitors.	is supported
Three	Some socio-demographic and trip characteristics can be associated with foreign visitors from different regions.	not entirely supported
Four	Foreign visitors to the park visit Malaysia because of its protected areas.	not entirely supported
Five	Local and foreign visitors placed different degree of importance on visitor information/interpretation services.	is supported
Six	Differences in the degree of satisfaction exist between local and foreign visitors on certain identified services, facilities and features in Taman Negara.	not entirely supported
Seven	Local and foreign visitors placed different evaluation on the charges imposed on services, facilities and user fees.	is supported
Eight	Some socio-demographic characteristics of the local community can be associated with different occupations.	is supported
Nine	Local community employed in different sectors placed different evaluations on the impacts of tourism.	not entirely supported

tend to be more noisy. DWNP therefore can address these differences by educating the local visitors, such as through information and interpretative programmes, and facilitate a more better distribution of visitors at the various attraction sites.

- Information and interpretative services: there is an urgent need to further improve the information and interpretative services provided by the park, through improvement in human resources and increase in funding. At present, basic information such as the various attractions available in the park, how to participate in the various activities, and maps for visitors to get around is insufficient. DWNP should recognised the importance of these services, especially to foreign visitors. It should view these services as methods whereby the park management could address the visitors, explaining the overall purpose of the park, the natural processes in the park and promote the 'appropriate' behaviour which could reduced the negative impacts on the park's resources. Additionally DWNP can develop a visitor code to mitigate some of the negative environmental impacts of tourism described in Chapter 6. Some visitors are not aware the potential impacts of their actions such as using soap to bathe in the river or littering and often many of these impacts can be reduced once visitors understand the effect of their actions on the park's resources.
- User fees: higher user fees for foreign visitors compared to local visitors. There is a very significant difference in the perception of user fees among local and foreign visitors, where the former perceived the user fees to be higher relative to the latter. Moreover, majority of local visitors and approximately half of foreign visitors agree to the proposal of a two-tier entrance fee.
- Detecting trends in use and planning. Findings from the survey indicate that visitors perceived the accommodation and food charges

in the park to be high. Presently, there is a lack of budget accommodation for locals and less affluent foreign visitors. Since the carrying capacity of Kuala Tahan has already been exceeded, future development in other areas of the park should take this factor into consideration. Planning for tourism development in Taman Negara should also take into consideration the participation of local communities living in the vicinity of the park. At present, local communities benefit mainly in terms of employment opportunities, and their views are often not being considered in the decision-making process. There is also a lack of appropriate training and capital assistance to develop entrepreneurial skills among the local communities.

Chapter Eight

KINABALU PARK: ANALYSES OF VISITORS, LOCAL COMMUNITIES AND PARK MANAGER QUESTIONNAIRES

8.1 INTRODUCTION

This chapter presents the findings on the second case study area: Kinabalu Park. The first part will discuss the field survey conducted on visitors in Kinabalu Park, based on the methodology described in Chapter Five (Appendix D). Similar to Chapter Seven, the analysis of the visitors survey will examine the first five objectives of the study and the seven propositions related to it. The second part of the chapter analyse the results of the interviews carried out on the local communities in villages in the vicinity of the Park Headquarters in Kinabalu Park (Appendix E) and the interview with the park manager of Kinabalu Park (Appendix F). Similar to the analysis on local communities of Taman Negara in the previous chapter, it discusses the sixth objective of the study and is associated with propositions eight and nine. The interview with the park manager will discuss the eighth objective of the study. The third part presents a summary of the findings and provide insights to the development of tourism in Kinabalu Park.

8.2 ANALYSIS OF VISITORS

The visitor's survey generated 562 usable responses and details the socio-demographic and trip characteristics of visitors; their perception of the facilities, services, and user fees; and visitors overall expenditure and experience in the park.

Profile of Respondents

The first section of the analysis details the characteristics of respondents using descriptive statistics and is associated with the first objective of the study.

Objective One: To investigate the socio-demographic profile of visitors to Kinabalu Park.

To examine the above objective, two propositions were set up. The analysis is based on answers given to the questions related to the country of residence, gender, age group, educational level and income.

Proposition One: Certain socio-demographic characteristics can be associated with local and foreign visitors.

Unlike Taman Negara in Peninsular Malaysia, local visitors to Kinabalu Park were further divided into Sabahans and Malaysians. Sabahans comprise of all visitors from Sabah, while Malaysians include visitors from all other states in Malaysia with the exception of Sabah. This is because Sabah is in East Malaysia, a considerable distance from the other states in Peninsular Malaysia, accessible only by air (approximately 3 hours flight from Kuala Lumpur). The composition of the three group of visitors, Sabahans, Malaysians and foreigners is shown in Table 8.1. The findings indicates that 197 (35.1%) of the respondents are Sabahans, while 82 (14.6%) are Malaysians and 283 (50.3%) are foreigners. The chi-square (χ^2) test was applied to determine the presence of association in the three groups of visitors with the identified socio-demographic characteristics. The level of significance of the chi-square employed for the proposition was 0.1%.

Table 8.1 reveals the demographic characteristics in percentages for local and foreign visitors, the calculated chi-square value for each

Table 8.1 Socio-demographic of Respondents (N = 562)

Descriptions	total	Sabah	Malaysia	Foreign	χ^2 - value	p-value
1. Respondents	562	197	82	283		
2. Gender					2.330	0.331
• male	62.1	65.0	65.9	59.0		
• female	37.9	34.1	34.1	41.0		
3. Age group					81.665	0.000 ^a
• below 20	8.4	13.2	11.0	4.2		
• 20 - 29	44.5	57.9	50.0	33.6		
• 30 - 39	28.3	17.8	39.0	32.5		
• 40 - 49	10.7	6.1	-	17.0		
• 50 - 59	7.1	5.0	-	10.6		
• 60 and above	1.1	-	-	2.1		
4. Occupation					100.498	0.000 ^a
• student	22.5	21.6	22.2	23.3		
• homeduty	3.1	5.2	2.5	1.8		
• retired/pensioner	1.1	1.0	-	1.5		
• self-employed	4.7	8.2	-	3.6		
• general worker	6.7	11.9	1.2	4.7		
• clerical/supervisory	37.3	47.4	49.4	26.5		
• executive/managerial	18.4	4.1	21.0	27.6		
• professional	6.2	0.5	3.7	10.9		
5. Educational level					246.969	0.000 ^a
• lower secondary	22.4	47.7	34.1	1.4		
• upper secondary	15.8	26.9	18.3	7.4		
• diploma	21.2	17.3	15.9	25.4		
• university degree	40.6	8.1	31.7	65.8		
6. Membership					47.277	0.000 ^a
• no	87.0	99.0	90.2	77.7		
• yes	13.0	1.0	9.8	22.3		
7. Gross annual income ¹	<i>n</i> = 409	<i>n</i> = 141	<i>n</i> = 60	<i>n</i> = 208		
• below 10,000		45.4	27.9	5.4		
• 10,000 - 29,999		44.7	41.0	29.3		
• 30,000 - 49,999		9.9	27.9	41.8		
• 50,000 - 89,999		-	3.2	19.2		
• 90,000 and above		-	-	4.3		

Notes :

¹ income for locals (Sabah & Malaysia) is in RM, while foreigners is in USD (USD1.00 = RM2.50 approx.)

^a significant at 0.1%, *n* = respondents answering that part of the question

characteristic and its probability value between local and foreign visitors. The findings shows the presence of association in four out of the five characteristics. There is a very significant ($p \leq 0.001$) relationship between the three groups of visitors in age group ($\chi^2 = 81.665$, $p = 0.000$), occupation ($\chi^2 = 100.498$, $p = 0.000$) and educational level ($\chi^2 = 246.969$, $p = 0.000$) and membership ($\chi^2 = 47.277$, $p = 0.000$).

Although the chi-square (χ^2) test was not applied to the gross annual income due to the differences in currencies, the findings shows that foreign respondents has a relatively higher income compared to Malaysians and Sabahans, while Malaysians have a higher income compared to Sabahans.

The results indicates there are more male visitors to the park, approximately the same number of males among Sabahans and Malaysians (65%), and slightly less among foreigners (59.0%). A high proportion of Sabahans (57.9%) and Malaysians (50.0%) are in the 20-29 age group, while most foreigners are in the 20-29 (33.6%) and 30-39 (32.5%) age groups. There are more foreigners in the older age groups compared to both Sabahans and Malaysians.

There is approximately the same number of students among the three groups of visitors (total mean 22.5%), with approximately half of Sabahans (47.7%) and Malaysians (49.4%) in the clerical/supervisory category and more Malaysians in the executive/managerial category compared to Sabahans. Most foreign visitors are in the executive/managerial (27.6%) and clerical/supervisory (26.5%) categories, with more professionals in comparison with the other two groups.

Overall, foreign visitors have a relatively higher level of education than Malaysians and Sabahans, with the former having more educational qualifications than the latter. Almost two-thirds of foreign visitors (65.8%) has a university degree compared to 31.7% Malaysians and 8.1% Sabahans. Majority of Sabahans (47.7%) are in the lower secondary educational category, while the same category has the least number of number of foreigners (1.4%). There are more foreigners (22.3%) who are members of organisations related to conservation, natural history or outdoor activities relative to Malaysians (9.8%) and Sabahans (1.0%).

Overall, more local (Sabahan and Malaysian) visitors tend to be in the 20-29 age group, less in the higher age groups, mostly employed in the clerical/supervisory category, have less educational qualifications and membership with related organisations compared to foreign visitors. Among the local visitors, there are more Malaysians in the 30-39 age group, employed in the executive/managerial category, have higher educational level and are members of related organisations in comparison to Sabahans. Thus the proposition that certain socio-demographic characteristics can be associated with local and foreign visitors is supported.

Trip Characteristics

The second section of the analysis discusses the trip characteristics of local (Sabahan and Malaysian) and foreign respondents and is related to the second objective of the study.

Objective Two: To examine visitors trip characteristics and identify how these characteristics differ among local and foreign visitors.

Proposition two was put forward in order to examine the second objective. The analysis is based on questions related to visitors travel

arrangement, who were they travelling with, type of accommodation used and number of days in the park. Information related to reasons for visiting the park and activities undertaken in the park were solicited from visitors to detect any motivational differences between local and foreign visitors.

Proposition Two: Certain trip characteristics can be associated with local and foreign visitors.

Respondents were grouped into Sabahan, Malaysian and foreign visitors (Table 8.2). Chi-square (χ^2) test was again applied to determine the presence of association in the three groups of visitors with the identified trip characteristics. The level of significance of the chi-square employed for the proposition was 0.1%.

The trip characteristics (in percentages) of Sabahans, Malaysians and foreigners are shown in Table 8.2, the calculated chi-square value for each characteristic and its probability value between Sabahan, Malaysian and foreign visitors. The findings indicate the presence of a relationship in all four trip characteristics. There is a very significant ($p \leq 0.001$) relationship between Sabahan, Malaysian and foreign visitors in their travel mode, style of travelling, type of accommodation and days in the park.

Majority of Sabahans (92.4%) and Malaysians (63.4%) are on non-package tours, while there is approximately an equal number of foreign visitors on package and non-package tours. Most Sabahans (69.5%) and Malaysians (63.4%) travelled in a group, while travelling with a friend/partner (42.8%) is more popular among foreigners. Hostel is the most common type of accommodation among all three groups of visitors, with Sabahans having the highest share (71.6%). Twin-bed cabin, the next cheapest accommodation is more popular among Malaysians (24.4%) and chalet among foreigners (21.2%). The most

Table 8.2 Trip Characteristics of Respondents (N = 562)

Descriptions	Total	Sabah	Malaysia	Foreign	χ^2 - value	p-value
1. Respondents	100.0	35.1	14.6	50.3		
2. Travel mode					93.981	0.000 ^a
• non-package tour	66.9	92.4	63.4	50.2		
• package tour	33.1	7.6	36.6	49.8		
3. Travelling...					93.822	0.000 ^a
• in a group	54.6	69.5	63.4	41.7		
• with a friend/partner...	27.9	11.2	17.1	42.8		
• as a family	13.6	19.3	18.3	8.1		
• alone	3.9	-	1.2	7.4		
4. Type of accommodation					104.427	0.000 ^a
• hostel	53.0	71.6	37.8	44.5		
• Twin-bed cabin	13.5	7.6	24.4	14.5		
• chalet	13.3	3.6	9.8	21.2		
• lodge	6.4	4.1	4.9	8.5		
• private	3.6	2.5	8.5	2.8		
• villa	3.4	-	12.2	3.2		
• nil	6.8	10.7	2.4	5.3		
5. Days in the park					43.083	0.000 ^a
• day trip	6.8	10.7	2.4	5.3		
• 2 nights and less	62.6	75.1	52.4	56.9		
• 3 - 5 nights	30.6	14.2	45.1	37.8		

Note :

^a significant at 0.1%

common length of stay in all three groups of visitors is 2 nights and less, the approximate time required to climb Mount Kinabalu. There are more Sabahans on day trip and more Malaysians and foreigners compared to Sabahans spending 3-5 nights in the park.

Foreign and Malaysian visitors are more likely to be on package tours, while Sabahans and Malaysians mostly travelled in groups, with a considerable number of Sabahans utilising the hostel. Relatively more Sabahans visit the park on day trip compared to Malaysians and foreigners, while a higher proportion of Malaysians and foreigners stayed in the park for 3-5 nights compared to Sabahans. Thus the proposition that certain trip characteristics can be associated with local and foreign visitors is supported.

Why visitors visit the park and activities undertaken in the park is revealed in Table 8.3. Generally, the three prevalent reasons for visiting the park are because of its landscape and scenery (63.7%), flora and fauna (51.8%) and adventure (51.1%). The most common reason cited by foreigners (70.3%) is landscape/scenery while more Malaysians and Sabahans indicated well known/famous and diversion from urban vacation as their reasons for visiting the park.

Hiking to Mount Kinabalu is one the main activities cited by all three groups of visitors (total mean 75.1%). Trail walking is the most popular activity among foreign visitors (81.3%), while 'relaxation' is more predominant among Sabahans (49.7%). Bird watching, botanical and wildlife watching are activities which are more prominent among foreigners, followed by Malaysians and to a lesser extent the Sabahans.

Table 8.3 Motivations and Activities of Visitors in KP

Descriptions	Total	Sabah	Malaysia	Foreign
1. Respondents	562	197	82	283
2. Reason(s) in choosing to visit this park....				
• landscape/scenery	63.7	55.3	61.0	70.3
• flora and fauna	51.8	37.6	54.9	60.8
• adventure	51.1	33.0	67.1	59.0
• well known/famous	43.1	47.7	63.4	33.9
• diversion from urban vacation	21.7	26.4	36.6	14.1
• it was in the itinerary	16.0	3.6	7.3	27.2
• short travel time	5.5	11.7	6.1	1.1
• others	6.8	7.1	7.3	6.4
2. Activities undertaken...				
• hiking to Mt Kinabalu	75.1	72.1	82.9	74.9
• photography	67.8	54.3	70.7	76.3
• trail walking	67.4	50.3	61.0	81.3
• relaxation	39.1	49.7	36.6	32.5
• botanical	35.4	16.2	28.0	50.9
• birdwatching	33.6	16.2	26.8	47.7
• wildlife watching	29.2	17.8	18.3	40.3
• learn about nature	19.2	21.8	18.3	17.7
• swimming	3.4	3.6	1.2	3.9
• others (seminars)	3.9	-	1.2	7.3

Note : Responses exceed 100% due to multiple response

Foreign Visitors to Kinabalu Park

This section will specifically discuss the characteristics of foreign visitors in Kinabalu Park. It addresses the third objective of the study, and propositions four and five. There are 283 (50.3%) foreign respondents and their country of residence is shown in Table 8.4. The largest number of foreign respondents is from United Kingdom (9.3%), followed by an equal number from Australia and Switzerland (5.4%). Respondents were then grouped into regions based on MTPB's classification. Regions having the largest number of respondents in descending order are: Western Europe (16.3%), Northern Europe (13.2%) and Eastern Asia (8.7%).

Table 8.4 Characteristics of Visitors to Kinabalu Park (N = 562)

Country of Origin	<i>n</i>	%	Region ¹	%
Sabah	197	35.1	Sabah	35.1
Malaysia	82	14.6	Malaysia	14.6
Brunei	1	0.2	ASEAN	1.1
Singapore	5	0.9		
China	2	0.4	Eastern Asia	8.7
Hong Kong	16	2.8		
Japan	15	2.7		
Taiwan	16	2.8		
Canada	15	2.7	Northern America	4.6
USA	11	2.0		
Australia	31	5.5	Oceania	6.4
New Zealand	5	0.9		
Denmark	11	2.0	Northern Europe	13.2
Finland	3	0.5		
Ireland	2	0.4		
Norway	1	0.2		
Sweden	4	0.7		
United Kingdom	53	9.3		
Austria	2	0.4	Western Europe	16.3
Belgium	3	0.5		
France	2	0.4		
Germany	14	2.5		
Italy	14	2.5		
Netherlands	25	4.4		
Spain	1	0.2		
Switzerland	31	5.4		
	562	100.0		100.0

Note : ¹ classification in accordance to Malaysian Tourism Promotion Board (MTPB) Annual Tourism Statistical Report

Objective Three: To examine foreign visitors demographic characteristics, trip characteristics, main sources of information, the importance of protected areas and determine if these attributes differ among visitors from different regions.

Proposition three will examine if there is any relationship in the various demographic and trip characteristics of foreign visitors from different regions, and proposition four will investigate if foreign visitors to the park visit Malaysia because of its protected areas.

Proposition Three: Certain socio-demographic and trip characteristics can be associated with foreign visitors from different regions.

The socio-demographic and trip characteristics of foreign visitors from different regions are shown in Table 8.5 and Table 8.6 respectively. Chi-square test (χ^2) was applied and the level of significance employed for the proposition were 0.1 % and 5%.

Findings from Table 8.5 indicates a very significant ($p \leq 0.001$) relationship among foreign visitors from different regions with socio-demographic characteristics associated with age group, occupation and educational level and a significant ($p \leq 0.05$) relationship in gross annual income. However, all the relationships between foreign visitors from different regions with the exception of gross annual income are considered invalid, since the minimum expected frequency (f_m) values are less than 1 and cells with expected frequency of below 5 (f_e) are found to be more than 20%.

Most of ASEAN respondents are in the USD10,000 - 29,999 income category, while respondents from all other regions are in the USD30,000 - 49,999 category. Generally, foreign respondents are frequently in the 20-29 and 30-39 age groups. There is a high proportion

Table 8.5 Socio-demographic Characteristics of Foreign Visitors to Kinabalu Park

Descriptions	total	ASEAN	East Asia	Oceania	North America	North Europe	West Europe	χ^2 -value	p-value
respondents	283	6	49	36	26	74	92		
Gender								9.338	0.096
• male	59.0	83.3	71.4	50.0	42.3	62.2	56.5		
• female	41.0	16.7	28.6	50.0	57.7	37.8	43.5		
Age group								*81.046	0.000 ^a
• below 20	4.2	-	4.1	-	-	6.8	5.4		
• 20 - 29	33.6	100.0	18.4	25.0	26.9	37.8	39.1		
• 30 - 39	32.5	-	28.6	5.6	53.8	43.2	32.6		
• 40 - 49	17.0	-	30.6	36.1	7.7	8.1	13.0		
• 50 - 59	10.6	-	12.2	30.6	11.5	1.4	9.8		
• 60 and above	2.1	-	6.1	2.8	-	-	-		
Occupation	n = 275	n = 6	n = 49	n = 35	n = 26	n = 67	n = 92	*85.535	0.000 ^a
• executive/managerial	27.6	33.3	36.7	28.6	11.5	28.4	26.1		
• clerical/supervisory	26.5	66.7	32.7	20.0	46.2	13.4	27.2		
• student	23.3	-	6.1	8.6	26.9	34.3	30.4		
• professional	10.9	-	6.1	8.6	7.7	17.9	10.9		
• general worker	4.7	-	-	17.1	7.7	4.5	2.2		
• self-employed	3.6	-	10.2	2.9	-	1.5	3.3		
• homeduty	1.8	-	4.1	8.6	-	-	-		
• retired/pensioner	1.5	-	4.1	5.7	-	-	-		
Education level								*43.446	0.000 ^a
• university degree	65.8	83.3	73.5	63.9	61.5	71.6	62.0		
• diploma	25.4	16.7	14.3	19.4	38.5	21.6	29.3		
• upper secondary	7.4	-	4.1	16.7	-	6.8	8.7		
• lower secondary	1.4	-	8.2	-	-	-	-		
Gross annual income (USD)	n = 208	n = 6	n = 43	n = 32	n = 19	n = 44	n = 64	36.617	0.013 ^b
• below 10,000	5.3	-	4.7	18.8	-	36.4	4.7		
• 10,000 - 29,999	29.3	83.3	23.3	28.1	15.8	-	28.1		
• 30,000 - 49,999	41.8	16.7	34.9	34.4	63.2	45.5	43.8		
• 50,000 - 89,999	19.2	-	30.2	18.8	10.5	15.9	18.8		
• 90,000 and above	4.3	-	7.0	-	10.5	2.2	4.7		

Notes :

n = respondents responding to that part of the question,

^a significant at 0.1%, ^b significant at 5.0%,* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%.

Table 8.6 Trip Characteristics of foreign visitors to Kinabalu Park

Descriptions	total	ASEAN	East Asia	Oceania	North America	North Europe	West Europe	χ^2 -value	p-value
respondents	283	6	49	36	26	74	92		
First trip to Malaysia?									
• yes	72.1	-	59.2	50.0	80.8	73.0	89.1	42.559	0.000 ^a
• no	27.9	100.0	40.8	50.0	19.2	27.0	10.9		
Days in Malaysia (median)	21	4	8	25	20	22	24		
Purpose of visit to Malaysia									
• holiday	94.3	100.0	98.0	77.8	88.5	98.6	96.7	*37.967	0.000 ^a
• vfr	3.9	-	-	19.4	11.5	1.4	-		
• business	1.8	-	2.0	2.8	-	-	3.3		
Source of information									
• published sources	49.5	83.3	22.4	47.2	30.8	58.1	60.9	*45.861	0.000 ^a
• travel agencies	33.6	16.7	55.1	22.2	42.3	24.3	32.6		
• friends/relatives	14.5	-	16.3	30.6	19.2	14.9	6.5		
• Tourism Malaysia	2.5	-	6.2	-	7.7	2.7	-		
Days in Kinabalu Park									
• day trip	5.3	-	16.3	2.8	-	-	6.5	*71.662	0.000 ^a
• 2 nights or less	56.9	50.0	77.6	61.1	100.0	52.7	35.9		
• 3 - 5 nights	37.8	50.0	6.1	36.1	-	47.3	57.6		
Type of accommodation									
• hostel	44.5	-	16.3	22.2	88.5	63.5	43.5	*148.200	0.000 ^a
• chalet	21.2	-	34.8	30.6	11.5	8.1	25.0		
• twin-bed cabin	14.5	83.3	2.0	33.3	-	17.6	10.9		
• lodge	8.5	16.7	18.4	11.1	-	6.8	5.4		
• villa	3.2	-	12.2	-	-	4.1	-		
• private	2.8	-	-	-	-	-	8.7		
• nil (day trips)	5.3	-	16.3	2.8	-	-	6.5		

Note :

^a significant at 0.1 %* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

of students from the regions of Northern Europe, Western Europe and Northern America and majority of respondents from all regions has a university degree.

As shown in Table 8.6, a very significant ($p \leq 0.001$) relationship exist among foreign visitors from different regions with all the trip characteristics: first or repeat visitors; purpose of visit to Malaysia; sources of information; days in Kinabalu Park; and type of accommodation. However, only the relationship among foreign visitors from different regions associated with the trip characteristic of first or repeat visit is valid, since the f_m and f_e values conform to the general rules.

All respondents from ASEAN are repeat visitors, while majority of respondents from Western Europe, Northern Europe and Northern America are visiting Malaysia for the first time. Holiday is cited as the main purpose of visit by majority of visitors from all regions.

Foreign visitors from the regions of Western Europe, Northern Europe, Oceania and ASEAN are more likely to be using published sources as their source of information compared to travel agencies for visitors from Eastern Asia. Generally, most foreign visitors stayed in the park for 2 nights or less, with 3-5 nights more common among visitors from Western Europe. Hostel is mostly utilised by visitors from Northern America, Northern Europe and Western Europe regions, while chalet is more frequently used by visitors from Eastern Asia and Oceania. Visitors length of stay in Malaysia varies with respondents from Oceania (25 days), Western Europe (24 days), Northern Europe (22 days) and Northern America (20 days) being considerably longer compared to respondents from ASEAN (4 days) and Eastern Asia (8 days).

Table 8.7 Other Characteristics of visitors to Kinabalu Park

Descriptions	total	Asean	East Asia	Oceania	North America	North Europe	West Europe	χ^2 -value	p-value
Agree to 'two-tier' fee	283	6	49	36	26	74	92		
• yes	59.0	16.7	40.8	47.2	76.9	73.0	59.8	22.657	0.000 ^a
• no	41.0	83.3	59.2	52.8	23.1	27.0	40.2		
Membership	77.7	83.3	71.4	58.3	100.0	78.4	81.5	17.293	0.003 ^b
• No	22.3	16.7	28.6	41.7	-	21.6	18.5		
Influence of protected area	n = 264	n = 4	n = 47	n = 33	n = 26	n = 69	n = 85	*55.185	0.000 ^a
• not important	3.4	-	8.5	3.0	3.8	2.9	1.2		
• somewhat important	9.8	-	23.4	-	19.2	2.9	9.4		
• moderately important	14.4	-	2.1	18.2	23.1	17.4	15.3		
• important	38.6	75.0	34.0	24.2	50.0	52.2	30.6		
• very important	33.7	25.0	31.9	54.5	3.8	24.6	43.5		
Visit other protected areas	83.4	-	87.8	75.0	100.0	77.0	83.4	*115.548	0.000 ^a
• yes	7.4	-	-	16.7	-	13.5	7.4		
• maybe	9.2	100.0	12.2	8.3	-	9.5	1.1		
• none at all									

Notes :

^a significant at 0.1%, ^b significant at 1.0%, n = number of respondents answering that part of the question
 * invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

Table 8.7 indicates the findings on the 'other' characteristics of visitors to Kinabalu Park. There is a very significant ($p \leq 0.001$) relationship among foreign visitors from different regions associated with their agreement to a 'two-tier' fee, influence of protected areas and visit to other protected areas, and a significant ($p \leq 0.01$) relationship with 'membership'. However, only the relationships among foreign visitors from different regions associated with their agreement to a 'two-tier' fee and 'membership' are considered valid since they conform to the general rules of $f_m \geq 1$ and $f_e \leq 20\%$.

Since there is an association among foreign visitors from different regions in only 4 out of the 14 socio-demographic, trip and 'other' characteristics, therefore the proposition that certain demographic and trip characteristics can be associated with foreign visitors from different regions is not entirely supported.

Tables 8.8 and 8.9 show the findings on the socio-demographic and trip characteristics of foreign visitors based on their mode of travel: package and non-package tours. The level of significance employed for the chi-square test (χ^2) were 0.1 %, 1% and 5%.

A very significant ($p \leq 0.001$) relationship is present in the trip characteristics associated with source of information and the type of accommodation utilised while in Kinabalu Park. A more significant ($p \leq 0.01$) relationship exist for the socio-demographic characteristic associated with occupation and trip characteristic associated with purpose of visit to Malaysia, while a significant relationship ($p \leq 0.05$) with socio-demographic characteristics related to age group and gross annual income, and the trip characteristic associated with first or repeat visit to

Table 8.8 Socio-demographic Characteristics of Foreign Visitors by Mode of Travel (N = 283)

Descriptions	package	non-package	χ^2 - value	p-value
1. Respondents	141	142		
2. Gender			1.962	0.161
• male	63.1	54.9		
• female	36.9	45.1		
3. Age group			13.973	0.015 ^b
• below 20	3.5	4.9		
• 20 - 29	24.1	43.0		
• 30 - 39	36.2	28.9		
• 40 - 49	22.0	12.0		
• 50 - 59	11.3	9.9		
• 60 and above	2.8	1.4		
4. Educational level			5.018	0.170
• lower secondary	2.8	-		
• upper secondary	8.5	6.3		
• diploma	26.2	24.6		
• university	62.4	69.0		
5. Gross annual income (USD)	<i>n</i> = 116	<i>n</i> = 92	9.691	0.045 ^b
• below 10,000	1.7	9.8		
• 10,000 - 29,999	29.3	29.3		
• 30,000 - 49,999	40.5	43.5		
• 50,000 - 89,999	24.1	13.0		
• 90,000 and above	4.4	4.3		
6. Occupation	<i>n</i> = 138	<i>n</i> = 137	22.541	0.002 ^a
• executive/managerial	32.6	22.6		
• clerical/supervisory	29.7	23.4		
• student	14.5	32.1		
• professional	14.5	7.3		
• general worker	2.9	6.6		
• self-employed	4.3	2.9		
• homeduty	1.5	2.2		
• retired/pensioner	-	2.9		

Notes :

^a significant at 1.0%; ^b significant at 5.0%,

n = number of respondents answering that part of the question

Table 8.9 Trip Characteristics of Foreign Visitors by Mode of Travel (N = 283)

Descriptions	package	non-package	χ^2 - value	p-value
1. Respondents	141	142		
2. First trip to Malaysia?			4.909	0.026 ^c
• yes	78.0	66.2		
• no	22.0	33.8		
3. Purpose of visit to Malaysia			*11.499	0.003 ^b
• holiday	97.9	90.8		
• business	2.1	1.4		
• vfr	-	7.7		
4. Influence by NP	n = 132	n = 132	3.026	0.553
• not important	3.8	3.0		
• somewhat important	12.9	6.8		
• moderately important	14.4	14.4		
• important	36.4	40.9		
• very important	32.6	34.8		
5. Source of information			90.269	0.000 ^a
• travel agencies	58.2	9.1		
• published sources	29.8	69.0		
• friends or relatives	7.1	21.8		
• Tourism Malaysia	4.9	-		
6. Reason to visit KP ¹				
• flora and fauna	55.3	66.2		
• landscape/scenery	62.4	78.2		
• adventure	48.9	69.0		
• well known/famous	17.7	50.0		
• as a diversion...	4.3	23.9		
• in the itinerary	53.9	0.7		
• short travel time	-	2.1		
• others	2.8	9.9		
7. Accommodation in KP			37.964	0.000 ^a
• private	5.7	-		
• hostel	36.9	52.1		
• twin-bed cabin	8.5	20.4		
• chalet	22.0	20.4		
• lodge	14.9	2.1		
• villa	3.5	2.8		
• nil (day trip)	8.5	2.1		

Notes :

^a significant at 0.1%, ^b significant at 1.0%, ^c significant at 5.0%

n = number of respondents answering that part of the question

¹ responses exceed 100% due to multiple response* invalid as its minimum expected frequency (f_m) is less than 1 and cells with expected frequency < 5 (f_e) is greater than 20%

Malaysia. Although there is a significant relationship among foreign visitors on package and non-package tours with the trip characteristic associated with the purpose of visit to Malaysia, it is however invalid since the values f_m and f_e do not meet the requirements of the chi-square test (χ^2).

As inferred from the findings, those travelling independently are more likely to be in the younger age groups compared to those on package tours. A high proportion (43%) of visitors on non-package tours are in the 20-29 age group, while those on package tours (36.2%) are in the 30-39 age group. More respondents on package tours are in the higher income category (USD50,000 - 89,999) and more of those travelling independently are in the below USD10,000 income category (Table 8.8).

Table 8.10 Other Protected Areas Visited by Foreign Visitors

Destination(s)		maybe ($n = 21$)	yes ($n = 236$)
Peninsular Malaysia	• Pulau Redang Marine Park	-	2.5
	• Kuala Selangor Nature Park	-	6.7
	• FRIM, Kepong	-	0.4
	• Endau Rompin Park	-	1.2
	• Taman Negara	19.0	19.0
Sabah	• Tunku Abdul Rahman Park	19.0	50.8
	• Sepilok, Sandakan	28.5	40.6
	• Turtle Island	47.6	25.8
	• Danum Valley Field Centre	-	7.6
	• Rafflesia Centre	42.8	5.9
Sarawak	• Bako National Park	9.5	37.2
	• Niah Caves	19.0	37.2
	• Semenggok National Park	-	9.4
	• Mulu National Park	23.8	4.7

Note : Responses exceed 100% due to multiple response

Published sources are the main source of information for those travelling independently compared to travel agencies for those on package tours. A higher proportion (21.8%) of those travelling independently have cited friends and relatives as their source of information relative to those on package tours (7.1%). Hostel and twin bed cabin are the types of accommodation more commonly used by those travelling independently. Some visitors on package tours have utilised private accommodation outside the park since certain tour operators have their own accommodation specially reserved for their clients.

Proposition four will examine the importance of protected areas to foreign visitors in Kinabalu Park and to what extent it influences visitors decision to visit Malaysia.

Proposition Four: Foreign visitors to the park visit Malaysia because of its protected areas.

Table 8.7 reveals that one in every three foreign visitors to the park cited protected areas as a 'very important' factor, 38.6% stated it as an 'important' factor and only 3.4% mentioned it is 'not important' in influencing their decision to visit Malaysia. The highest response on it being a 'very important' factor is from visitors in the Oceania (54.5%) region, followed by the Western Europe (40.2%) region. Hence, the proposition of foreign visitors to the park visit Malaysia because of its protected areas is supported.

The above proposition is further supported since majority of visitors (83.4%) stated that they have/will be visiting other protected areas and 7.4% cited they might be visiting other protected areas. Table 8.10 shows the other protected areas which foreign visitors have/will and may be visiting in their present visit to Malaysia. Tunku Abdul Rahman Park

(50.8%) and the Sepilok Orang Utan Sanctuary (40.6%) in Sabah; Bako National Park (37.2%) and Niah Caves (37.2%) in Sarawak; and Taman Negara (19.0%) in Peninsular Malaysia are some of the more popular protected areas which visitors have/will be visiting.

Table 8.11 Rating of Visitor Information & Interpretation services in Kinabalu Park(KP)

Descriptions	total mean ¹	Local (279)		Foreign (283)		t-value
		<i>n</i>	mean ¹	<i>n</i>	mean ¹	
<i>Rating of...</i>						
• Visitor interpretation	3.28	258	3.31	261	3.26	.83
• Visitor information	3.17	277	3.21	281	3.13	1.58

Notes : *n* = number of respondents answering that part of the question
¹ mean scores based on 5-point Likert scale ranging from 1 = very disappointing to 5 = far exceeded expectation

Facilities and Services in the Park

The fourth section details the perception of visitors on the various services, facilities, features and charges at the Park Headquarters in Kinabalu Park. It will discuss the third objective of the study, and is associated with propositions five and six.

Objective Four: To evaluate visitors perception of park's facilities and services, and determine if differences in perception exist between local and foreign visitors.

Proposition five was set up to examine visitors' perception of the information and interpretative services provided by the park.

Proposition Five: Local and foreign visitors placed different degree of importance on visitor information and interpretative services.

Table 8.11 shows the findings on visitors perception of the information and interpretative services in Kinabalu Park. The overall total

mean for information is 3.17, while the total mean for interpretation is 3.28. Generally, visitors are relatively satisfied (mean values > 3.00) with both the information and interpretative services. Foreign visitors mean values are slightly lower than local visitors, indicating higher expectations among foreign visitors. However, the t-test shows there is no significant difference in the perception of foreign and local visitors towards the information and interpretative services provided in the park.

Table 8.12 Quality of Visitor Interpretation services in Kinabalu Park(KP)

Descriptions	total mean ¹	Local (279)		Foreign (283)		t-value
		n	mean ¹	n	mean ¹	
<i>Quality of visitor interpretation services...</i>						
• informative	3.47	259	3.53	254	3.41	2.07
• educational	3.43	259	3.49	257	3.37	1.92
• entertaining	3.15	251	3.18	234	3.12	1.00
• stimulating	3.14	255	3.22	234	3.05	2.90 ^a

Notes : *n* = number of respondents answering that part of the question

¹ mean scores based on 5-point Likert scale ranging from 1 = very poor to 5 = very good

^asignificant at $p < 0.01$

Table 8.12 illustrates the quality of visitor interpretative services as perceived by visitors. Generally, visitors perceived the quality of interpretative services to be good (total mean values > 3.00) as indicated by attributes related to it being 'informative' (3.47), 'educational' (3.43), 'entertaining' (3.15) and 'stimulating' (3.14). Mean evaluations of foreign visitors on all four attributes are lower compared to local visitors. However, the t-test indicated a more significant ($p < 0.01$) difference is only present in the perception of foreign and local visitors towards the attribute related to 'stimulating'.

Findings demonstrated in Table 8.11 and Table 8.12 therefore indicate that although foreign visitors have a slightly higher expectation towards the information and interpretative services provided by the park, but a more significant ($p < 0.01$) difference is observed in only one of the attributes. Thus, the proposition that local and foreign visitors placed different degree of importance on visitor information and interpretation services is not entirely supported.

Table 8.13 shows the evaluations of visitors on the techniques of communication adopted by the park. Overall, evaluations on all the techniques are considered to be quite satisfactory (mean values > 3), with park rangers having the highest (3.51) and maps/checklists having the lowest (3.09) total mean values. There is a very significant ($p < 0.001$) difference in the evaluations of foreign and local visitors in two (souvenir shops and maps/checklists) out of the eight techniques.

Table 8.13 Quality of Communication Techniques adopted in Kinabalu Park(KP)

Descriptions	total mean ¹	Local (279)		Foreign (283)		t-value
		<i>n</i>	mean ¹	<i>n</i>	mean ¹	
<i>Techniques of communication...</i>						
• park rangers	3.51	243	3.52	212	3.51	.13
• guided walks	3.42	226	3.42	213	3.42	-.3
• publication/book	3.31	233	3.25	224	3.38	-1.71
• self-guided trails	3.26	203	3.18	237	3.34	-2.47
• souvenirs shop	3.16	275	3.30	267	3.02	3.92 ^a
• brochures/leaflets	3.13	230	3.10	260	3.16	-.83
• wilderness trails	3.10	159	3.09	199	3.12	-.33
• maps/checklists	3.09	240	3.25	256	2.95	4.14 ^a

Notes : *n* = number of respondents answering that part of the question

¹ mean scores based on 5-point Likert scale ranging from 1 = very poor to 5 = very good

^asignificant at $p < 0.001$

Proposition six was set up to examine the quality of certain selected services and features found in the Park Headquarters.

Proposition Six: Differences in the degree of satisfaction exist between local and foreign visitors on certain identified services, facilities and features in Kinabalu Park.

Table 8.14 provides some indications on the evaluation of visitors on certain services and facilities in the Park Headquarters. Generally, visitors are quite satisfied with all the services and facilities (total mean values > 3.00). Foreign visitors are more satisfied with services of tour operator and meals, while local visitors are more satisfied with park staff, park management, park guide and accommodation. A very significant ($p < 0.001$) difference is observed in the evaluations of local and foreign visitors in all the service attributes with the exception of tour operator.

Table 8.14 Level of satisfaction on services in Kinabalu Park (KP)

Descriptions	total mean ¹	Local (279)		Foreign (283)		t-value
		<i>n</i>	mean ¹	<i>n</i>	mean ¹	
<i>Satisfaction with...</i>						
• tour operator	3.76	63	3.60	140	3.84	- 1.95
• park staff	3.52	274	3.63	244	3.40	3.64 ^a
• park management	3.48	263	3.62	250	3.34	5.03 ^a
• park guide	3.46	215	3.75	204	3.14	7.70 ^a
• meals	3.38	250	3.18	283	3.56	- 6.10 ^a
• accommodation	3.27	254	3.40	261	3.14	3.62 ^a

Notes : *n* = number of respondents answering that part of the question

¹ mean scores based on 5-point Likert scale ranging from 1 = most disappointing to 5 = most satisfying

^a significant at $p < 0.001$

Table 8.15 Rating of features in Kinabalu Park (KP)

Descriptions	total mean	Local (279)		Foreign (283)		t-value
		n	mean	n	mean	
<i>Features...</i>						
• diversity of flora	4.14	269	3.99	267	4.29	- 5.39 ^a
• accessibility	3.44	272	3.42	279	3.46	- .75
• cleanliness	3.43	279	3.68	283	3.18	8.27 ^a
• distribution of visitor	3.29	275	3.34	254	3.24	1.83
• access on information	3.29	255	3.38	272	3.21	2.89 ^b
• wildlife sighting	2.77	260	2.78	265	2.75	.42

Notes : n = number of respondents answering that part of the question
¹ mean scores based on 5-point Likert scale ranging from 1 = very poor to 5 = very good
^asignificant at $p < 0.001$; ^bsignificant at $p < 0.01$

Table 8.15 shows the findings on the evaluations of visitors on certain features of the park. Generally, with the exception of wildlife sighting (2.77), visitors are satisfied (total mean values > 3.00) with features associated with diversity of flora, accessibility, cleanliness, distribution of visitors and access to information. Foreign visitors are more satisfied with features related to diversity of flora and accessibility, while local visitors are more satisfied with cleanliness, distribution of visitors, wildlife sighting and access to information. A very significant ($p < 0.001$) difference in the evaluations of local and foreign visitors is observed in features associated with diversity of flora and cleanliness and a more significant ($p < 0.01$) difference in the access to information.

Since a very significant ($p < 0.001$) difference is observed in seven of the identified services, facilities and features, and a more significant ($p < 0.01$) difference in one of the services, proposition six which states that there are differences in the degree of satisfaction between local and foreign visitors with the identified attributes is supported.

Table 8.16 Charges in Kinabalu Park (KP)

Descriptions	total	Local (279)		Foreign (283)		t-value
	mean ¹	n	mean ¹	n	mean ¹	
<i>Charges in the park</i>						
• camera fee	3.61	134	3.87	110	3.29	6.41 ^a
• meals	3.44	249	3.80	238	3.05	12.14 ^a
• canopy walkway	3.17	157	3.32	87	2.89	5.28 ^a
• park guide	3.14	229	3.16	161	3.11	.72
• accommodation	3.12	252	3.17	198	3.06	1.60
• porters	3.12	154	3.23	68	2.86	3.41 ^a
• permit to summit	3.06	237	3.20	168	2.86	5.77 ^a
• entrance fee	2.79	264	2.98	168	2.48	9.91 ^a

Notes : n = number of respondents answering that part of the question

¹ mean scores based on 5-point Likert scale ranging from 1 = very low to 5 = very high

^asignificant at $p < 0.001$

Charges Imposed on Visitors

All the charges in the park (Table 8.16) with the exception of meals are administered by Kinabalu Park under the supervision of Sabah Parks. As mentioned in Chapter Six, the restaurants are leased to KOKTAS, a cooperative where its members are the staff of Sabah Parks.

Objective Five: To evaluate visitors perception on the charges of park's facilities, services and user fees and determine if differences in perception exist between local and foreign visitors.

Proposition seven was put forward to examine respondents perception on the various charges imposed by Kinabalu Park and KOKTAS.

Proposition Seven: Local and foreign visitors placed different evaluations on charges imposed on services, facilities and user fees.

Respondents perception on the various charges is shown in Table 8.16. Generally, visitors consider all the charges with the exception of

entrance fee to be slightly high (total mean values > 3.00). Locals perceived all the charges to be higher as indicated by their higher mean values. With the exception of park guide and accommodation, a very significant ($p < 0.001$) difference in the evaluations of local and foreign visitors is present in charges related to camera fee, meals, canopy walkway, porters, permit to summit and entrance fee.

Since a very significant ($p < 0.001$) difference occurs in six out of the eight charges, hence the proposition that local and foreign visitors placed different evaluations on the charges of services, facilities and user fees is supported.

Table 8.17 Increase in User Fees (KP)

Descriptions	total mean ¹	Local (279)		Foreign (283)		t-value
		n	mean ¹	n	mean ¹	
<i>Increase fees...</i>						
• entrance fee	3.00	272	2.81	224	3.23	- 5.33 ^a
• permit (summit)	2.73	242	2.59	213	2.88	- 3.19 ^b
• canopy walkway	2.40	162	2.13	126	2.74	- 6.10 ^a
• camera fee	2.02	148	1.65	145	2.40	- 7.36 ^a

Notes : n = number of respondents answering that part of the question

¹ mean scores based on 5-point Likert scale ranging from 1 = disagree strongly to 5 = agree strongly

^asignificant at $p < 0.001$; ^bsignificant at $p < 0.01$

User Fees

As indicated in Table 8.17, with the exception of entrance fee (total mean value = 3), visitors are less supportive towards the increment of other user fees (permit to summit, canopy walkway and camera fee). The mean values for all the user fees are higher among foreigners compared to local visitors, indicating a greater willingness among foreigners to pay a higher fee. A very significant ($p <$

0.001) difference is observed in the mean values of local and foreign visitors towards increasing the entrance fee, canopy walkway and camera fees, and a more significant difference ($p < 0.01$) in the permit to the summit.

Table 8.18 shows visitors' agreement to a two-tier entrance fee structure. Almost 90% of Sabahans, majority of Malaysian visitors (76.8%) and more than half (59.0%) foreign visitors agreed to such a proposal.

Table 8.18 Introducing Two-tier Fee for Visitors (KP)

Descriptions	Sabah	Malaysia	Foreign	total
respondents	197	82	283	562
• yes	89.3	76.8	59.0	72.2
• no	10.7	23.2	41.0	27.8

Visitors Expenditure

Table 8.19 demonstrates the expenditure pattern of Sabahans, Malaysians and foreign visitors on certain selected items and services. Overall, the most common expenditure by all groups of visitors is on park guides since all visitors attempting to hike Mount Kinabalu must be accompanied by a park guide.

Table 8.19 Visitors Spending in Kinabalu Park (RM)

Descriptions	Sabah (197)		Malaysia (82)		Foreign (283)	
	<i>n</i>	amount ¹	<i>n</i>	amount ¹	<i>n</i>	amount ¹
• porters	12	10.00	5	15.0	8	25.00
• park guides	130	11.20	44	13.75	115	15.00
• t-shirts	44	19.00	30	20.00	69	18.00
• postcards	7	5.00	21	2.40	104	3.10
• books/publications	4	10.00	8	15.00	29	16.00
• local handicrafts	12	15.00	5	10.00	8	11.00
• others...	-	-	1	10.00	6	15.50

Notes :

n = number of respondents answering that part of the question

¹ this is the median amount spent

£1.00 = RM4.00 (approx.)

Generally, visitors did not spend much. The most common item bought by local visitors is T-shirts, followed by postcards, while for foreigners it is the reverse.

Recommendation and Remarks

Overall, majority (92.0%) of visitors would recommend Kinabalu Park to their friends or relatives, with only a very small number (0.5%) of visitors (all foreigners) not in favour of recommending Kinabalu Park (Table 8.20). All Malaysian respondents would recommend Kinabalu Park to their friends or relatives, while there are more foreigners (13.8%) stating 'maybe' as their answer compared to 1.5% Sabahans.

Table 8.20 Recommending Kinabalu Park to friends/relatives

Descriptions	total	Sabah	Malaysia	Foreign
respondents	562	197	82	283
• yes	92.0	98.5	100.0	85.2
• maybe	7.5	1.5	-	13.8
• no	0.5	-	-	1.1

The final open-ended question seeks information from visitors on the possible improvements which could increase the quality and experience of their visit to Kinabalu Park. The highest number of remarks are associated with the quality of park guides and litter along the trail to the summit. Comments on park guides are mostly related to their very reserved nature and inability to communicate in English effectively. Since all visitors must be accompanied by a park guide during their hike to the summit, many visitors feel that the park guide should be able to communicate better and provide more information on the natural history of the park.

Suggestions by visitors on the problem of litter include having more dustbins along the trails to the summit to reduce the possibility of littering, and the park authorities should further educate visitors on the proper disposal of rubbish. Other remarks by visitors include the cleanliness of the toilets in the mountain huts; too much bureaucracy in the booking/reservation for accommodation and park guide; more information on interpretative services in the park, e.g. time of slide shows and nature walks; slow service at the restaurants; and more parking spaces for cars.

8.3 ANALYSIS ON LOCAL COMMUNITIES

The second part of the analysis details the findings on the local communities obtained from interviews conducted in four villages within the vicinity of the Park Headquarters, based on the questionnaire reproduced in Appendix E. It discusses the sixth objective of the study and is related to propositions eight and nine.

Profile of Local Communities

Table 8.21 displays the characteristics of the 84 respondents representing households from villages of Kiau Nuluh, Kiau Teburi, Kinaseraban and Bundu Tuhan (refer to Figure 6.9 for location of villages). Majority (97.6%) of respondents are of the Dusun/Kadazan origin, with a small minority of Bugis (2.4%). Respondents represent various age groups, with more males (71.4%) compared to females.

Most respondents are married (92.6%), a considerable number of them have large families, with 41.0% having 6 or more children living with them. Most respondents have primary level education (42.9%) or no formal education (36.9%), with a smaller proportion of them having lower secondary education

Table 8.21 Characteristics of Local Community (N = 84)

Descriptions	%
<i>Gender</i>	
• male	71.4
• female	28.6
<i>Age group</i>	
• below 20	-
• 20 - 29	10.7
• 30 - 39	27.4
• 40 - 49	26.2
• 50 - 59	14.3
• 60 and above	21.4
<i>Race</i>	
• Dusun/kadazan	97.6
• Bugis	2.4
<i>Marital status</i>	
• single	2.4
• married	92.9
• widowed	4.8
<i>Number of children...</i>	
a. staying with you	
• none	9.5
• 1 - 2	20.9
• 3 - 5	28.6
• 6 and above	41.0
b. away from you	
• none	45.2
• 1 - 2	27.4
• 3 - 5	26.2
• 6 and above	1.2
<i>Education level</i>	
• no formal education	36.9
• primary	42.9
• lower secondary	16.7
• upper secondary	3.5
<i>Household income (RM)</i>	
• below 3,000	38.1
• 3,000 - 4,999	35.7
• 5,000 - 9,999	14.3
• 10,000 and above	11.9

Descriptions	%
<i>Village</i>	
• Kiau Nuluh	25.0
• Kiau Teburi	27.4
• Kinaseraban	8.3
• Bundu Tuhan	39.3
<i>Born in this village?</i>	
• yes	88.1
• no	11.9
<i>If NO, years of residency (n = 11)</i>	
• less than 10	18.2
• 11 - 20	63.6
• above 20	18.2
<i>Property</i>	
a. Is this your property?	
• no	95.2
• yes	4.8
b. If yes, is it... (n = 80)	
• village land	36.3
• inherit it	30.0
• family owned	28.7
• bought it	5.0

(16.7%). Household incomes of respondents are usually below RM3,000 (38.1%) and between RM3,000 - 4,999 (35.7%). Majority of respondents (88.1%) were born in their respective villages. For those who were not, more than 80.0% have resided for more than eleven years and majority of respondents (95.2%) lived in properties which they owned.

Table 8.22 Employment characteristics of respondents

Descriptions	respondent (n = 84)	spouse (n = 84)	children (n = 67)
<i>Directly related</i>			
• mountain/park guide	11.9	-	3.0
• park employee	4.8	1.3	10.4
• coop employee	-	6.4	6.0
• porter	-	2.6	3.0
• tourist guide	-	-	1.5
<i>Others</i>			
• agriculture	50.0	56.3	17.8
• government servant	19.0	10.3	22.4
• housewife	9.5	19.2	10.4
• pensioner	3.6	-	-
• mechanic	1.2	-	-
• mine worker	-	2.6	6.0
• minibus driver	-	1.3	-
• shop assistant	-	-	4.5
• sawmill worker	-	-	6.0
• miscellaneous	-	-	9.0

Employment Characteristics

Table 8.22 shows the findings on the employment characteristics of respondents, their spouse and children. The 'direct' sector include all employment which are considered to be directly associated with tourism comprising of mountain/park guides, park employees, cooperative (KOKTAS) employees, porters and tourist guides. The 'other' sector is related to all other employment, those which are indirectly influenced by tourism such as agriculture and shop assistants, and others, for example government related jobs, housewives, pensioners and mine workers.

The results shows that the agricultural sector is the main generator of employment where half of the respondents are involved in agriculture (50.0%), followed by government servants (19.0%), mountain/park guides (12.4%), and housewives (9.5%). Respondents' spouses are also mainly involved in agriculture (56.3%), housewives (19.2%), government servants (10.3%), and cooperative employees (6.4%). A high proportion of respondents' children are government servants (22.4%), farmers (17.9%), park employees and housewives (both 10.4%).

Proposition eight was put forward to gain further understanding on the influence of socio-demographic characteristics on the different occupations.

Proposition Eight: Certain socio-demographic characteristics of the local communities can be associated with different occupations.

To investigate proposition eight, respondents were divided into the 'direct' and 'other' sectors, depending on their occupation. Table 8.23 shows the presence of a more significant ($p \leq 0.01$) relationship in gender ($\chi^2 = 6.720$, $p = 0.009$) and household income ($\chi^2 = 13.935$, $p = 0.002$).

Those having jobs directly related to tourism are predominantly males, mainly mountain guides and have a higher level of household income with majority of them in the RM3,000 - 4,999 income bracket. A small number of respondents (4.2%) in the 'other' sector has upper secondary education (mostly teachers) and 14.3% of those in this group has income above RM10,000.

Since there is only a more significant ($p < 0.01$) relationship in only two out of the five socio-demographic characteristics, the proposition that certain socio-demographic characteristics of the local communities can be associated with different occupations is not entirely supported.

Table 8.23 Socio-demographic characteristics of Local Community according to occupation (KP)

Descriptions	direct <i>n</i> = 14	others <i>n</i> = 70	χ^2 - value	p - value
<i>Gender</i>			6.720	0.009 ^a
• male	100.0	65.7		
• female	-	34.3		
<i>Age group</i>			8.253	0.082
• below 20	-	-		
• 20 - 29	7.2	11.4		
• 30 - 39	21.4	28.6		
• 40 - 49	50.0	21.4		
• 50 - 59	21.4	12.9		
• 60 and above	-	25.6		
<i>Marital status</i>			1.892	0.388
• single	7.1	1.4		
• married	85.8	94.3		
• widowed	7.1	4.3		
• divorcee	-	-		
<i>Educational level</i>			3.770	0.437
• no formal education	28.6	38.6		
• primary	64.3	38.6		
• lower secondary	7.1	18.6		
• upper secondary	-	4.2		
<i>Household income (RM)</i>			13.935	0.002 ^a
• below 3,000	7.1	42.9		
• 3,000 - 4,999	78.6	28.5		
• 5,000 - 9,999	14.3	14.3		
• 10,000 and above	-	14.3		

Notes : ^a significant at 1.0%,

Perceptions of Tourism Among Local Communities

As mentioned previously, positive attitudes tend to be affiliated with tourism's economic benefits, while negative or neutral attitudes are often associated with social-cultural and environmental impacts.

Objective Six: To explore the economic, environmental and socio-cultural impacts of tourism as perceived by the local communities.

To explore these impacts, respondents were asked to indicate their level of agreement along a five-point scale: 1 (significantly improve), 2 (improve), 3 (about the same), 4 (worse), 5 (significantly worsen) on certain impacts of tourism. Table 8.24, 8.25 and 8.26 show the results of the total mean values of respondents from four selected villages on the perceived economic, environmental and socio-cultural impacts of tourism.

As evidenced in Table 8.24, overall, respondents perceived the economic impacts of tourism positively (total mean values < 3.0), with the exception of price level/inflation (3.97). The highest improvement is perceived in terms of employment opportunities (2.01), followed by standard of living (2.10), infrastructure & facilities (2.15) and income level (2.20). The *F*-ratio is utilised to illustrate if there is any significant difference in the perceptions of local communities between different villages. A more significant ($p \leq 0.01$) difference between the local communities from different villages occurs in the perceived impact of tourism related to price level/inflation and a significant ($p \leq 0.05$) difference in employment opportunities.

Respondents also perceived the environmental impacts of tourism (traffic, water quality and land clearing) favourably (total mean values < 3.0), with the exception of wildlife (3.82) (Figure 8.25). Traffic congestion is rarely observed. Moreover, cultivation of sub-temperate vegetables and tourism has

Table 8.24 Respondents Perceptions on the Economic Impacts of Tourism in Kinabalu Park

Descriptions	total mean scores	Bundu Tuhan	Kiau Teburi	Kiau Nuluh	Kinaseraban	F - ratio
<i>Respondents</i>	84	33	23	21	7	
• employment opportunities	2.01 (0.478)	2.12 (0.331)	1.78 (0.599)	2.04 (0.497)	2.14 (0.378)	2.707 ^b
• standard of living	2.10 (0.411)	2.06 (0.348)	2.13 (0.548)	2.14 (0.358)	2.14 (0.378)	0.229
• infrastructures & facilities	2.15 (0.452)	2.12 (0.415)	2.21 (0.421)	2.23 (0.539)	1.85 (0.378)	0.750
• income level	2.20 (0.404)	2.15 (0.364)	2.26 (0.449)	2.23 (0.436)	2.14 (0.378)	0.431
• price level/ inflation	3.97 (0.580)	4.06 (0.658)	3.65 (0.572)	4.09 (0.300)	4.28 (0.488)	3.964 ^a

Notes : a. Mean scores based on a 5-point Likert scale ranging from 1 = significantly improve, 3 = about the same, to 5 = significantly worsen

b. Figures in bracket denote standard deviations
^asignificant at $p \leq 0.01$, ^b significant at $p \leq 0.05$

Table 8.25 Respondents Perceptions on the Environmental Impacts of Tourism in Kinabalu Park

Descriptions	total mean scores	Bundu Tuhan	Kiau Teburi	Kiau Nuluh	Kinaseraban	F - ratio
<i>Respondents</i>	84	33	23	21	7	
• traffic	2.32 (0.563)	2.39 (0.555)	2.30 (0.635)	2.23 (0.539)	2.28 (0.448)	0.343
• water quality	2.64 (0.705)	2.81 (0.882)	2.73 (0.449)	2.33 (0.577)	2.42 (0.534)	2.517
• land clearing	2.78 (0.906)	3.03 (0.951)	2.43 (0.727)	2.57 (0.810)	3.42 (0.975)	3.884 ^a
• wildlife	3.82 (0.643)	3.90 (0.630)	3.76 (0.539)	3.76 (0.539)	4.00 (0.816)	0.730

Notes : a. Mean scores based on a 5-point Likert scale ranging from 1 = significantly improve,

3 = about the same, to 5 = significantly worsen

b. Figures in bracket denote standard deviations,

^asignificant at $p < 0.05$

provided better accessibility to many of the villages around the Park Headquarters, where previously many of these villages were not accessible by roads.

Presently, many of the local communities are able to enjoy public utilities such as electricity and piped water supply. Therefore respondents perceived that with tourism, there is an improvement in the water quality, since there is a continuous supply of water for domestic purposes. Furthermore, none of these villages are close to any major rivers. Overall, land clearing is also perceived favourably by the local communities, since it generates economic benefits with no major effects on the environment. However, the *F*-ratio indicates a significant ($p \leq 0.05$) difference exist between the local communities from different villages in the perceived impact of land clearing. Respondents from Kinaseraban, the village closest to Kundasang (Figure 6.9), the centre for tourism development in South Kinabalu has perceived the impact of land clearing less favourably. Land clearing here is conducted on a larger scale, and has generated adverse effects such as erosion.

Table 8.26 reveals the findings on the socio-cultural impacts of tourism as perceived by the local communities. Tourism has improved the local communities courtesy & hospitality to visitors (2.08), religious values (2.40) and morality (2.79). Negative influences of tourism such as crime, drug abuse and alcoholism, are seen as having little impact on the local communities as indicated by their total mean values which are close to 3 ('about the same').

Generally, the local communities has perceived the impacts of tourism favourably. They recognised the many economic benefits of tourism, with inflation as the only adverse economic impact. The only significant negative environmental impact perceived by the local communities is on the wildlife. The

Table 8.26 Respondents Perceptions on the Social Impacts of Tourism in Kinabalu Park

Descriptions	total mean scores	Bundu Tuhan	Kiau Teburi	Kiau Nuluh	Kinaseraban	F - ratio
Respondents	84	33	23	21	7	
• courtesy & hospitality to visitors	2.08 (0.354)	2.15 (0.364)	2.04 (0.366)	1.95 (0.218)	2.28 (0.488)	2.329
• religious values	2.40 (0.603)	2.51 (0.667)	2.56 (0.662)	2.14 (0.358)	2.14 (0.378)	2.844 ^b
• morality	2.79 (0.832)	3.18 (0.882)	2.56 (0.662)	2.33 (0.483)	3.14 (1.069)	6.639 ^a
• local culture/tradition	2.97 (0.844)	3.21 (0.820)	3.00 (0.904)	2.66 (0.795)	2.71 (0.951)	2.009
• sexual permissiveness	3.00 (0.791)	3.15 (0.712)	2.91 (0.733)	2.71 (0.902)	3.42 (0.786)	2.181
• crime	3.15 (0.363)	3.21 (0.415)	3.08 (0.288)	3.14 (0.358)	3.14 (0.378)	1.003
• drug abuse	3.16 (0.374)	3.21 (0.415)	3.13 (0.344)	3.14 (0.358)	3.14 (0.378)	0.730
• alcoholism	3.17 (0.563)	3.18 (0.527)	3.17 (0.491)	3.14 (0.727)	3.28 (0.488)	0.109

Notes: a. Mean scores based on a 5-point Likert scale ranging from 1 = significantly improve,

3 = about the same, to 5 = significantly worsen

b. Figures in bracket denote standard deviations

^a significant at $p \leq 0.001$, ^b significant at $p \leq 0.05$

influence of tourism on the local communities' social and cultural values is minor. In fact, local communities perceived tourism has improved their religious values and morality. Before the development of tourism, when most of these villages were inaccessible, paganism was common. However, with development and influences from outside, most of the local communities now worship Christianity or Islam. Hence, overall they perceived there is an improvement in religious values and morality.

To explore if different perceptions exist among those who are directly involved with tourism and those who are not, proposition nine was proposed.

Proposition Nine: Local communities employed in different sectors placed different evaluations on the impacts of tourism.

Table 8.27 shows the total mean values of the perceived economic, environmental and socio-cultural impacts of tourism as perceived by the local communities employed in the 'direct' and 'other' sectors. The t-test shows there is a very significant ($p < 0.001$) difference in the perception of the two sectors in the attribute related to crime, a more significant ($p < 0.01$) difference on inflation, and a significant ($p < 0.05$) difference in water quality, religious values, and morality.

Although local communities who are directly involved in tourism ('direct') perceived a higher improvement in employment opportunities, standard of living, infrastructure and facilities, income level and a higher rate of inflation, a more significant difference is only observed in the inflation rate. The higher price level is felt less by those who are in the 'other' sector, maybe because majority of them are involved in agriculture and are relatively more self sufficient.

Table 8.27 Differences in Mean Scores between those Directly and Indirectly related to Tourism

Descriptions	Total mean	Direct mean	Others mean	t - value
<i>Economic impact</i>				
• employment opportunities	2.01	1.92	2.02	-0.71
• standard of living	2.10	2.07	2.11	-0.35
• infrastructures & facilities	2.15	2.14	2.17	-0.22
• income level	2.20	2.14	2.21	-0.60
• price level/inflation	3.97	4.42	3.88	2.95 ^b
<i>Environmental impact</i>				
• traffic	2.32	2.14	2.35	-1.79
• water quality	2.64	3.14	2.54	2.27 ^c
• land clearing	2.78	3.07	2.72	1.30
• wildlife	3.82	3.92	3.80	0.68
<i>Socio-cultural impact</i>				
• courtesy & hospitality to visitors	2.08	2.00	2.10	-0.96
• religious values	2.40	2.14	2.45	-2.56 ^c
• morality	2.79	3.28	2.70	2.48 ^c
• local culture/tradition	2.97	3.35	2.90	1.83
• sexual permissiveness	3.00	3.21	2.95	1.11
• crime	3.15	3.00	3.17	-3.78 ^a
• drug abuse	3.16	3.14	3.15	-0.13
• alcoholism	3.17	3.07	3.20	-0.78

Note : a. Mean scores based on a 5-point Likert scale ranging from 1 = significantly improve, 3

= about the same, to 5 = significantly worsen

^a significant at $p < 0.001$, ^b significant at $p < 0.01$, ^c significant at $p < 0.05$

There is a very significant difference between the two sectors towards the attribute related to crime, where respondents in the 'other' sector perceived crime has increased. Significant difference is also observed in religious values and morality between the two sectors, where the 'direct' sector perceived a higher decline in morality and the 'other' sector a greater decline in religious values. Since significant differences in perceptions is only observed in five out of the seventeen attributes, the proposition of local communities employed in different sectors placed different evaluations on the impacts of tourism is not entirely supported.

The final question is an open ended question asking the respondents if they are satisfied with the current tourism development. Overall, the local communities favours tourism development, recognising its many economic benefits. Some of their opinions are represented below :

- more employment opportunities;
- more tourism ventures in their respective villages such as 'home stay', and anticipates appropriate assistance from the relevant authorities;
- since the area is becoming an important tourist destination, they perceived there should be more development in the respective villages in terms of better roads and more public facilities; and
- many of the mountain guides feel that the maximum number of visitors per guide should be reduced and the charges for mountain guides should be increased.

8.4 PARK MANAGER

Prior to the interview being conducted, the park warden (park manager) was given a copy of the questionnaire (Appendix F) to familiarise himself with the focus and content of the interview and gather any relevant supporting information. The interview was very well received, enabling the researcher to have an interesting discussion with the park warden. Details of the interview is described below.

Table 8.28 Number of Persons Employed by Kinabalu Park

Category	Number	Number involve with visitors
a. Management	3	-
b. Naturalist/ecologist	11	5
c. Rangers	17	2
d. Clericals	5	-
e. Casual labourers	143	33
f. accommodation	6	6
g. drivers	5	1
h. maintenance	1	-
Total	191	47

Table 8.28 illustrates the total number of persons employed by Kinabalu Park based on the respective occupational categories. The park has a total of 191 employees, where 47 of them are associated with visitors. Majority of employees are casual labourers and rangers. There are 5 naturalists which are involved with visitors, mostly in guided walks. Salaries for park personnel are paid by Government Grants through the State Legislative Assembly and income from user fees is retain in the 'Park Fund' which can be utilised for the development of the park (see Chapter 6). The park warden anticipates that the

park will have sufficient budget to manage the increasing number of visitors since the park is able to request an increase in the Government Grant.

The present level of staff is considered sufficient by the park warden to protect the natural resources of the park but insufficient to manage the existing number of visitors. More park personnel are required to provide better information and interpretative services such as briefing to visitors, nature tours and guided walks. Furthermore, since all accommodation facilities for visitors are managed and maintained by Kinabalu Park, there is a further need to increase the park's manpower. Training for park personnel involved with visitors are mainly short in-house training related to the management of accommodation facilities, usually conducted by established hotels and training on park interpretation.

The park authority has not conducted any visitors survey but they have been conducted by certain study groups. However, accessibility to survey materials are limited. Presently, there is no precise method of recording the demographic information of visitors to the park. Details of overnight visitors are obtained from their accommodation reservation and climbers from their registration form. Day visitors are recorded as they enter the park and other demographic information are obtained if they participate in the guided walk or the audio-visual presentation.

No proper studies has been conducted to asses the carrying capacity of the park. However, estimates are made based on observation and experience. The park acknowledges that there is a problem of crowding/congestion in the main attraction areas during peak periods and plans to overcome this problem include developing alternative visitors facilities at other sites in the park such as Pinosuk Plateau, Serinsim and Sayap.

The entrance fees to the park was last revised in 1987, where the amount was increased from RM1 to the present RM2 per person. The park warden do support the concept of a different fee structure for locals and foreigners, but foresee the implementation of a different entrance fee may cause congestion at the point of entry. This is because of the limited accessibility to the park, with only one collection booth. He however favours a different fee structure for local and foreigners on other user fees.

The park warden perceived foreign and local visitors have different kinds of visitor experience while in the park, which may be due to their different motivations. Foreigners appreciates the opportunity to be close to nature, cherish the park's natural resources, participate and enjoy the nature programmes, while locals enjoy the cooler weather, a place to relax and the challenge of climbing.

Impacts of tourism are mostly observed in the highly developed areas where tourist facilities are located. Other environmental impacts include deteriorating trails, litter and destruction of some vegetation along the trails. Although tourism is not the primary objective of the park, considerable attention is given to tourism in the overall park planning. Tourism is an important source of income for the park, in spite of its association with certain impacts, and as emphasised by the park warden '... a controlled tourism programme may in other ways help in protecting the park' (Wong, 1995). This is because as mentioned in Chapter 6, the areas around the south of Kinabalu Park has been the centre of upland development, undergoing rapid changes. The nature-based tourism currently being promoted in the park requires the protection of the park resources since the sustainability of tourism is dependent on the integrity of the park resources and thus provides a justification for the protection of the park's resources.

8.5 SUMMARY

This chapter has described the socio-demographic and trip characteristics of local (Sabahan and Malaysian) and foreign visitors to Kinabalu Park. It has shown that certain socio-demographic and trip characteristics are associated with local and foreign visitors; explore the perception of visitors on the user fees, facilities and services available in the park; and evaluate the impacts of tourism as perceived by the local communities.

The findings indicate that there are more male visitors to the park, the proportion of males among Sabahans and Malaysians is slightly higher than foreign visitors. More than half of the local visitors are in the 20-29 age group, and more foreigners are in the older age groups. There is approximately the same number of students among the three groups of visitors, and approximately half of locals are in the clerical/supervisory category. Most foreign visitors are in the executive/managerial and clerical/supervisory categories, with more professionals compared to local visitors.

Overall, foreign visitors has a relatively higher level of education and more are members of organisations related to conservation, natural history or outdoor activities compared to Malaysians and Sabahans, with the former having more educational qualifications and members of related organisations than the latter. Majority of Sabahans (92.4%) and Malaysians (63.4%) are on non-package tours, while there is approximately an equal number of foreign visitors on package and non-package tours. Most Sabahans and Malaysians travelled in a group, while travelling with a friend/partner is more popular among foreigners. Hostel is the most common type of accommodation among all three group of visitors, with Sabahans having the highest share. Twin-bed cabin, the next economical accommodation after the hostel is more popular among Malaysians and chalet among foreigners. There are more Sabahans on day trip and the most

common length of stay in all three groups of visitors is 2 nights and less, the approximate time required to climb Mount Kinabalu.

Generally, the three main reasons for visiting the park are because of its landscape and scenery, flora and fauna and adventure. The most common reason cited by foreigners is landscape/scenery while more Malaysians and Sabahans indicated well known/famous and diversion from urban vacation as their reasons for visiting the park. Hiking to Mount Kinabalu is the main activity undertaken by Malaysians and Sabahans, while trail walking is the most predominant activity among foreigners. 'Relaxation' is more popular among Sabahans, while bird watching, botanical and wildlife watching are activities which are more common among foreigners, followed by Malaysians and to a lesser extent the Sabahans.

Certain underlying relationships may be interpreted between foreign visitors from different regions and those travelling on package and non-package tours. All respondents from ASEAN are repeat visitors, while majority of respondents from other regions are visiting Malaysia for the first time. Holiday is cited as the main purpose of visit by majority of visitors from all regions. Visitors length of stay in Malaysia varies with respondents from Oceania, Western Europe, Northern Europe and Northern America being considerably longer compared to respondents from ASEAN and Eastern Asia. Foreigners travelling on package tours are more likely to be in the higher age and income groups compared to those travelling independently. Published sources is the main source of information, followed by friends and relatives for those travelling independently compared to travel agencies for those on package tours.

Generally, foreign visitors to Kinabalu Park visit Malaysia mainly because of its protected areas. This is because more than 70% of foreign visitors cited

protected areas as a 'very important' or 'important' factor, while only 3.4% cited it is 'not important' in influencing their decision to visit Malaysia. This finding is further supported since majority of visitors (83.4%) stated that they have/will be visiting other protected areas and 7.4% cited they might be visiting other protected areas.

Generally, visitors are relatively satisfied with both the information and interpretative services. Foreigners mean values are slightly lower, indicating their higher expectations, however this difference is not significant. Visitors also perceived the quality of interpretative services to be good, as indicated by their favourable perception towards the attributes related to 'educational', 'informative', 'stimulating' and 'entertaining'. Visitors are also satisfied with the various techniques of communication adopted by the park, with the highest satisfaction on park rangers and the lowest on maps/checklists.

Overall, visitors perceived the services, facilities and features in Kinabalu Park to be satisfactory. Foreign visitors are more satisfied with services of tour operator and meals, while local visitors are more satisfied with park staff, park management, park guide and accommodation. A very significant difference in the evaluations of local and foreign visitors is observed in all the service attributes with the exception of tour operator. Generally, with the exception of wildlife sighting, visitors are satisfied with features associated with diversity of flora, accessibility, cleanliness, distribution of visitors and access to information. Foreign visitors perceived the diversity of flora to be higher and the access to information and cleanliness to be lower relative to local visitors.

Local visitors perceived the charges of facilities, services and user fees in Kinabalu Park to be higher relative to foreign visitors. A very significant difference occurs in the perception between local and foreign visitors in almost

all the charges. Visitors are only supportive towards higher entrance fee and are less supportive towards increasing the other user fees. Majority of Sabahans and Malaysians, and more than half of foreign visitors agreed to the proposal of a two-tier fee structure for the entrance fee.

Majority (92.0%) of visitors would recommend Kinabalu Park to their friends or relatives, while 7.5% stated maybe and only a very small number of visitors (0.5%) is not in favour of recommending Kinabalu Park. Comments from visitors are mostly related to the quality of park guides and litter along the trail to the summit. Remarks on park guides are mostly related to their very reserved nature, inability to communicate well in English and lack of information on the park's natural history. Other comments include the cleanliness of the toilets in the mountain huts; too much bureaucracy in the booking/reservation for accommodation and park guide; more information on interpretative services in the park; and more parking spaces.

The local communities in the vicinity of Kinabalu Park are mainly involved in agriculture and are allowed to enter the park without having to pay any entrance fees. Generally, respondents perceived the economic impacts of tourism positively with the exception of inflation. The highest improvement is perceived in terms of employment opportunities, followed by standard of living, infrastructure & facilities, and income level. Although local communities who are directly involved in tourism perceived higher economic improvements, a more significant difference is only observed in the inflation rate.

The only significant negative environmental impact perceived by the local communities is on the wildlife. There is no major traffic problem, and tourism has increased the accessibility of many villages. The influence of tourism on the local communities' social and cultural values is minor. Moreover, local

Table 8.29 Summaries of Results of Propositions

Propositions	Descriptions	Results
One	Some socio-demographic characteristics can be associated with local and foreign visitors.	is supported
Two	Some trip characteristics can be associated with local and foreign visitors.	is supported
Three	Some socio-demographic and trip characteristics can be associated with foreign visitors from different regions.	not entirely supported
Four	Foreign visitors to the park visit Malaysia because of its protected areas.	is supported
Five	Local and foreign visitors placed different degree of importance on visitor information/interpretation services.	not entirely supported
Six	Differences in the degree of satisfaction exist between local and foreign visitors on certain identified services, facilities and features in Kinabalu Park.	is supported
Seven	Local and foreign visitors placed different evaluation on the charges imposed on services, facilities and user fees.	is supported
Eight	Some socio-demographic characteristics of the local community can be associated with different occupations.	not entirely supported
Nine	Local community employed in different sectors placed different evaluations on the impacts of tourism.	not entirely supported

communities perceived tourism has improved their religious values and morality since tourism has exposed them to Christianity and Islam, replacing their previous pagan beliefs. The overall results of the analyses carried out on the nine propositions are summarised in Table 8.29.

Insights to Kinabalu Park include :

- The slightly higher expectations of foreign visitors towards the information and interpretative services provided by the park relative to local visitors are mainly due to their higher educational level, reasons for visiting the park and activities undertaken.
- Since the park/mountain guides are solely monopolised by the local communities, educational and training programmes should be provided to overcome the guides' lack of knowledge and skills required in the guiding profession. Kinabalu Park should initiate the educational and training programmes with the cooperation of tour operators, MOCAT, non-governmental organisations and educational institutions.

Chapter Nine

CONTRIBUTIONS, RECOMMENDATIONS AND LIMITATIONS

9.1 INTRODUCTION

The purpose of this study is to examine the management of tourism in national parks, where Taman Negara and Kinabalu Park were utilised as case studies. Several research objectives and propositions were presented in Chapters 1 and 5. Analyses and findings associated with these objectives and propositions were then presented in Chapters 7 and 8. This chapter will discuss the last objective of the study which is related to policy implications and recommendations, present the contributions of the research, describe limitations of the study and suggestions for further research.

9.2 TOURISM IN NATIONAL PARKS

Overall, this study has highlighted the different socio-demographic and trip characteristics of local and foreign visitors to Taman Negara and Kinabalu Park; their satisfaction with the various facilities, services and features found in the parks; and their evaluation on the charges for facilities and user fees imposed by the parks. The economic, environmental and socio-cultural impacts of tourism as perceived by the local communities living in the parks' surroundings has also been evaluated.

This study has stressed the importance of tourism in Malaysian national parks. Tourism in many developing countries, including Malaysia, has the capability of increasing the public and political awareness of the value of protected areas. As

mentioned in Chapter 6, the constitutional structure of protected areas in Malaysia allows parts of the national park to be degazetted, as observed in Taman Negara and Kinabalu Park. Certain areas of the parks have been excised for the purpose of mining, agriculture and construction of a dam. Tourism is therefore seen as securing the parks from these threats, while increasing its conservation objective. Tourism negative impacts are considered minor relative to the other land uses and are usually viewed as management problems which can be overcome.

The literature review in Chapter 4 has indicated that studies (Butler and Fenton, 1987; Wilson and Laarman, 1988; Boo, 1990; Eagles, 1992) have suggested that visitors to protected/natural areas or more popularly known as ecotourists tend to be older, more highly educated and have a higher level of income. MTPB (Malaysian Tourism Promotion Board), STPC (Sabah Tourism Promotion Corporation) and tour operators have associated Taman Negara and Kinabalu Park with ecotourism and they are being promoted abroad as ecotourist destinations. The findings of the survey revealed that most foreign visitors have a higher level of education and income compared to local visitors. However, majority of foreign visitors to both of the parks are in the 20-29 and 30-39 age groups, contrary to the studies mentioned above which often associates ecotourists with the 40-49 age group. As mentioned by (Shackley, 1996), the slightly older age of ecotourists may be due to such holidays being expensive, affordable to the more financially established higher age groups.

Visitors to Taman Negara can be associated with Wilson and Laarman (1988) '*casual*' visitors, Duffus and Dearden (1990) '*generalist*' or Lindberg (1991) '*mainstream*' and '*casual*' visitors. Majority of foreign visitors to Taman Negara do not consider protected areas as a 'very important' factor in influencing their visit to Malaysia. This further supports Peat Marwick (1993) suggestion of Taman Negara as an 'add on' destination. Based on studies in Musa (1982) and

Taman Negara Master Plan (DWNP, 1987), the present number of visitors to the Kuala Tahan Complex in Taman Negara has far exceeded the carrying capacity of the area. However, in the visitors survey, the 'distribution of visitors' was rated favourably by visitors and visitors do not perceived a problem of crowding. This may be supported by the concept of recreational succession as suggested by Buckley and Pannell (1990), and Duffus and Dearden (1990). The higher number and density of visitors often changes the characteristics of the area, which in return changes the type of visitors, their expectations, and requirements. Although visitors are satisfied with some of the present conditions, they may not be the same type of visitors who visited the area earlier in its life cycle.

Sabah, blessed with a wide array of natural attractions is often considered as the most attractive and unique nature-based tourism destination in Malaysia. The findings of the survey indicated that the majority of foreign visitors to Kinabalu Park consider protected areas as an important influence in their decision to visit the country, with a substantial number of visitors visiting other protected areas, such as wildlife sanctuaries and marine parks in the state. Sabah could therefore positioned itself in such a way to take full advantage of the market segment which focuses on nature-based tourism. However to remain competitive and attractive, the development of tourism in protected areas in Sabah should be carefully planned to reflect the preferences of this particular segment of visitors. Additionally, there is a need for better infrastructural support, human resources and knowledge to address the possible adverse environmental impacts. The facilitating role of the government is vital in the development framework since policies, development guidelines, rules, regulations and efficient implementation machinery are central to the sustainability of the nature-based tourism industry. Moreover since tourism and the environment fall under the portfolio of the state Ministry of Tourism and Environmental Development, the ministry is in a better position to monitor the planning process, management and implementation of policies towards minimising the negative impacts of tourism on socio-cultural life and the environment.

As indicated by the case studies, park management has been traditionally administered by personnel from the natural sciences, often lacking the appropriate knowledge required to solve many of the present problems. Park management requires a team of personnel who are knowledgeable in various fields, including tourism, since innovative, cross-disciplinary approaches are required to successfully manage a national park. Therefore there is a need to have a team of staff which is more balanced, from various disciplines capable of implementing comprehensive approaches, integrating conservation and tourism development. Improvement in human resources, which include more experienced and qualified personnel and appropriate training for parks' staff is essential for the effective management of the parks.

Unlike the local communities in some national parks in certain developing countries (Lusigi, 1984; Valentine, 1992; Hall, 1994; Lawson, 1996) mentioned in Chapter 4, local communities living in the vicinity of Taman Negara and Kinabalu Park supports the development of tourism. The local communities perceived the socio-cultural and environmental impacts of tourism as relatively minor. Tourism is seen as a provider of jobs and income, replacing some of the privilege lost from restrictions on allowable uses in protected areas. This study further supports the findings by Allen, Hafer, Long and Perdue (1993), which suggested residents from rural communities with low economic activity and low tourism development tend to have high hopes and expectations from tourism development. However, at present local communities' participation in the planning of tourism development is very limited, without true decentralisation in the decision-making process. There is no clear policy guidelines on how the local communities should be incorporated in the overall tourism development or to what extent tourism should be used to diversify their economy. There is also a lack of appropriate training and financial assistance to develop entrepreneurial skills among the local communities and measures to control tourism ventures from being dominated by local elite.

Tourism in Malaysian protected areas has grown rapidly, but human resources, supporting services and facilities in many protected areas are not sufficiently developed to provide quality experience for visitors. Generally, tourism has been considered in the nation's five year development plans (Chapter 2) with huge allocations given to promotion and the development of infrastructure which include accommodation, highways, airports and visitor centres. Other issues considered include privatisation, incentives to the private sector and manpower development especially in the hotel sector. Although nature-based tourism is recognised as one of the strategies in the promotion of tourism, there appears to be no comprehensive policy on tourism in protected areas, where the development of tourism has been going on apparently without clear policy guidelines, to a greater extent in Peninsular Malaysia and a lesser extent in Sabah. In the absence of a defined tourism policy, planning is usually on an ad hoc basis and not sufficiently focus (Dieke, 1993). Therefore there is a need for clear policy statements on how nature-based tourism in protected areas should be developed, or how to confront its potential impacts or the need to protect the interest and well-being of local communities living in the vicinity of the area.

Since the government is the official guardian of protected areas, such as through DWNP in the case of Taman Negara, and Sabah Parks in the case of Kinabalu Park, Department of Forestry or the State Economic Corporations in the case of other protected areas, there is an urgent need for the government to undertake a more supportive role to ensure that there is a comprehensive approach, which include policies and development guidelines on how tourism should be developed in the protected areas. Additionally, there is a need for better co-ordination and co-operation between the management of protected areas and the related tourism authorities to clearly determine the objectives of tourism in protected areas and the formulation of policies for the implementation of these objectives. These objectives as indicated by McNeely and Thorsell

(1989) will influence :

- the type of tourism facilities considered appropriate for the protected area;
- priority of tourists: local or foreign, if foreign, is there any specific market;
- primary beneficiaries: local communities, foreign or local investors;
- dependency: to what extent the protected area should be dependent on tourism; and
- scale of development: influenced by primary beneficiaries, dependency and limits of acceptable change (LAC).

In Peninsular Malaysia, unlike in Sabah, tourism and the agencies responsible for the management of protected areas are under different ministries (Figures 2.3 and 6.2). There is therefore a need of better coordination and cooperation between the management of protected areas and MOCAT (Ministry of Culture, Arts and Tourism) in planning, formulating policies, monitoring and supervising the implementation of plans related to tourism in protected areas. This will ensure a more proper administrative structure, availability of financial and other resources and a better relationship with the private sector in promoting tourism in protected areas. Without strong commitment and co-operation between the management agencies of protected areas and MOCAT, it is unlikely that tourism development in protected areas will be undertaken efficiently.

9.3 RECOMMENDATIONS

The tourism development experiences of Taman Negara and Kinabalu Park are mainly being influenced by their management structure, legislation and financial access of the two parks (Table 9.1). Findings in the case studies indicate that visitors in Kinabalu Park are more satisfied with the park's

Table 9.1 Administration and Management Structures of Taman Negara and Kinabalu Park

Descriptions	Taman Negara	Kinabalu Park
Location	Peninsular Malaysia (Figure 6.1 & 6.5)	Sabah (Figure 6.11 & 6.12)
Administration <ul style="list-style-type: none"> Administrator Legislation Gazetted Area (ha) 	<ul style="list-style-type: none"> Department of Wildlife and National Parks (Director-General) (Figure 6.2 & 6.3) National Parks Act 1980 1938/39 434,300 	<ul style="list-style-type: none"> Sabah Parks Board of Trustees (Director) (Figure 6.9 & 6.10) Park Enactment 1984 1964 75,370
User fees <ul style="list-style-type: none"> entry fee camera video camera fishing (per rod) canopy walkway climbing 	<ul style="list-style-type: none"> 1.00 5.00 5.00 10.00 3.00¹/5.00² nil 	<ul style="list-style-type: none"> 2.00 5.00³ 30.00³ n.a. 2.00³ 10.00
Distribution of income from user fees	State government (income from entry permits, fishing permits & camera licenses) Federal government (fees from canopy walkway, boat ride, hides & 1.5% of TNR annual gross earnings)	Park funds
Management of facilities <ul style="list-style-type: none"> accommodation restaurants 	Taman Negara Resort Taman Negara Resort	Kinabalu Park KOKTAS

Notes :

¹ children; ² adults; ³ applicable in Poring Hot Springs only

management, staff, information and interpretative services and perceived the charges for accommodation and meals to be lower relative to visitors in Taman Negara. Kinabalu Park is one of the more fortunate national parks in Malaysia, since its institutional and legal structures allow greater autonomy in the management of the park and easier access to the park's income.

Since there are some differences in the circumstances and nature of problems faced by the two parks, recommendations for the two parks will be considered separately, where the first and second part will look at Taman Negara and Kinabalu Park respectively.

DWNP (Department of Wildlife and National Parks) involvement in tourism development in Taman Negara should be active rather than passive. However, DWNP confronts several institutional and legal problems which hinders the department from playing a more effective role in the management and development of tourism in Taman Negara. The department is not equipped for the effective management of tourism since it lacks the appropriate organisational structure, autonomy, manpower and access to an adequate financial base. For DWNP to play a more effective role in tourism, its structure needs to be reviewed and reorganised to overcome these weaknesses. Immediate measures include a more experienced and qualified manpower and ensuring that at least part of its income remains in the park for the upkeep of facilities, services and development expenditures. DWNP also needs to undertake a more prominent role, initiating better coordination and cooperation between TNR, MOCAT, private tour operators and the local communities.

The importance of information and interpretative services in national parks is well acknowledged. However, as revealed in the visitors survey, the information and interpretative services in Taman Negara are not satisfactory. Foreign visitors

often expect access to information related to the park and consider interpretation as an essential service offered by the park. Since Taman Negara is being promoted internationally and approximately half of the visitors to Taman Negara are foreigners, there is an urgent need to have better information and interpretative services which include better maps, signposts, slide show, bilingual explanation of the exhibits and adequately trained staff to handle visitors. Taman Negara should consider interpretation as the intellectual part of the experience, hence influencing the overall quality of experience. Additionally, DWNP should also consider having a visitor code or guidelines which could reduce some of the negative impacts of tourism. The lack of quality human resources and adequate financial access again present significant constraints in providing the services mentioned above.

Since Taman Negara encounters certain financial difficulties, it will be beneficial for Taman Negara to develop some form of differential pricing whereby those who are more well-off are charged more. However, for Taman Negara to benefit from this additional income, certain legislation need to be amended first, to enable the park to keep part of its income since presently all income from user fees in Taman Negara is either channelled into the State or Federal Government. Differential pricing could be achieved through a higher charge for foreign as opposed to domestic visitors. A two-tier entrance fee will be a desirable first step which could later be expanded to a multi-level admission system or extended to other user fees. Additionally the park should also consider the possibility of having a higher entrance fee which will cover for all the other charges such as canopy walkway and camera fees. This will greatly reduce the administration work required to administer the present system and makes the overall implementation of a two-tier fee structure which include all the user fees more feasible. Studies have demonstrated that higher entrance fee for foreigners often have a negligible effect on the total number of foreign visitors to a

protected area. Findings of the visitors survey indicated that majority of local visitors and more than half of foreign visitors agreed to such a proposal. The present entrance fee is very small compared to the benefits enjoyed by visitors. Furthermore, the entrance fee has not been revised since it was first implemented, even if only the inflation rate is taken into account, the entrance fee would likely double the present amount.

In promoting Taman Negara, more emphasis should be placed on factors such as the diversity of flora, ecological process and less attention on the larger wildlife, such as elephants or tigers since the probability of visitors viewing such animals is very rare. Brochures promoting Taman Negara often mentioned these larger animals, and visitors have high expectation of viewing them and are frequently disappointed with the reality. Findings from the visitors survey indicates that foreign visitors view the diversity of flora as high, and Taman Negara should exploit this situation by providing more information on the various vegetation and the plants visitors are likely to see.

Accommodation facilities in Taman Negara are generally of two types, mainly the upmarket fully air-conditioned chalets and the limited capacity hostel accommodation with very basic facilities. Among the main suggestions by local visitors and the more price conscious foreign visitors in the survey include having more middle range accommodation. The Taman Negara Master Plan (DWNP, 1987: 11) has stated that ‘...there must never be any effort to create an exclusivity about the place with respect to any specific group for example the rich tourist only’. Both the accommodation facilities and restaurants in Taman Negara are provided by Taman Negara Resort (TNR), which is managed by Singapore Mandarin International (SMI) Hotels and Resorts. The expensive accommodation and food prices is understandable given the nature of TNR and its high operational costs. However, the appropriateness of a multi-national concessionaire like TNR for a

national park is questionable. This situation again highlights the previous discussions on the lack of clear objectives on why tourism is being promoted in protected areas and the absence of clear policies and development guidelines on how tourism should be developed in a particular protected area.

Unlike Taman Negara in Peninsular Malaysia, Kinabalu Park in the state of Sabah has a different institutional, legal and organisational structure which allows greater flexibility and autonomy not only in the management of the park but also towards the park's income. Accommodation facilities in the park are managed by the park itself and there is a wide range of choices to cater for the different type of visitors. As mentioned in Chapter 6, the restaurants are managed by KOKTAS, a staff cooperative, on which the park management has a considerable influence. Generally, Kinabalu Park has managed to provide satisfactory information and interpretative services such as various publications on the park's attractions, its flora and fauna and daily guided walks lead by the park naturalists/ rangers. The park has its own library, herbarium and laboratories for conducting research.

Kinabalu Park is one of the more successful national parks in Malaysia, where conservation and tourism has successfully merged. The local communities has benefited from tourism, in the form of employment opportunities through Kinabalu Park and KOKTAS, and tourism has stimulated the local economy through the purchase of agricultural produce required by tourists. Kinabalu Park's organisational structure and management practices could provide useful insights to other protected areas in Malaysia.

Recommendations which could further increase the quality of visitor experience in Kinabalu Park and park's income include:

- improving the quality of mountain guides, more education and training is required, especially those related to communication skills, English

language and knowledge on the natural history of the park.

- a more simple procedure in the allocation of mountain guides for climbers to the summit could be introduced. Presently, climbers are given the form for the reservation of a mountain guide in the morning, just before the climb. It is recommended that visitors staying overnight are given the reservation form earlier, enabling them to organise their group and to reduce the early morning queue.
- similar to the recommendation given to Taman Negara, it would also be beneficial for Kinabalu Park to develop a visitor code and a pricing structure where foreigners pay a different charge compared to local visitors.

9.4 LIMITATIONS OF THE STUDY

In appraising the findings of this study, it is important to interpret the results in light of the following limitations.

- Although every visitor was given a copy of the questionnaire, participation in the visitors survey was voluntary. There is a possibility that visitors who have participated are different from those who did not participate, generating a non-response bias. Again, due to the voluntary nature of participation, the proportion of local and foreign visitors, and the proportion of foreign visitors from different regions who participated in the survey may not reflect the true composition of visitors to the park.
- Since the visitor's questionnaire was only available in the Bahasa Malaysia and English version, there is a possibility that responses from foreign visitors were mainly from those who are competent in English.

- Many of the questions in the visitors survey uses a 5-point Likert scale in which respondents were asked to indicate their degree of satisfaction on certain facilities or services, or their strength of agreement on certain statements. Different visitors may have different interpretation on the numbers within the scale. Although the survey attempts to define these numbers, it is possible that visitors may not interpret the score definitions similarly.
- Some of the impacts perceived by local communities may not actually be related to tourism and may be due to the wider changes which are occurring in the society.
- Access to many of the supporting data required for this study has been difficult, official statistics is relatively scarce, in addition to the bureaucracy and confidentiality of the materials involved.
- Time and financial limitations. Funding and time period for the field work was limited to three months by the sponsor, hence the structure of the field work had to be designed around the stipulated time period. A longer field survey would allow the collection of more data.

9.5 SUGGESTIONS FOR FUTURE RESEARCH

This research has attempted to identify the socio-demographic, trip characteristics and activities of local and foreign visitors to two Malaysian national parks, and evaluate their satisfaction with the facilities, services and certain features of the national parks. Future research could also relate the different characteristics of visitors to preferences for management actions. Visitors may favour management actions which promotes protection, and

utilisation of the natural environment through interpretative activities; or support the transformation or alteration of the natural surroundings.

Other research recommended include relating the socio-demographic, trip characteristics, activities of visitors and their satisfaction with facilities and services to environmental attitudes. The environmental attitudes can be based on Dunlap and Van Liere (1978) New Environmental Paradigm (NEP) scale, a 12 item five-point Likert designed questions which identifies the anthropocentric or ecocentric dominated views of visitors. An anthropocentric attitude regards nature exists primarily to service the needs of humans while an ecocentric view implies that mankind should live in harmony with nature. A modified and revised NEP scale has also been recently developed.

At the macro level, more research is needed to determine the appropriate policy, development guidelines and implementation plans for tourism in protected areas for the country as a whole, which will also take into consideration the needs, involvement and participation of local communities living in the vicinity of protected areas.

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APPENDICES

APPENDIX A - Investment Incentives Act 1968

Investment Incentives Act 1968 and the tourism industry benefits through :

i. Income tax exemption

This provided for the total relief of income taxes (40% of net income) and development tax (5% of net income) for a period of two to eight years depending on the level of capital investment if it qualified as pioneer status.

ii. Income tax abatements

This was a partial relief of income taxes for a period of twelve years for those project not electing pioneer status.

iii. Investment tax credit

Available to those companies not enjoying either of the above incentives. It provides a tax credit representing 25% of the total capital expenditure incurred by the project.

The Act also allowed for accelerated depreciation and increased capital allowances which allowed depreciation of fixed assets over a four-year period rather than the normal twenty-year period for those companies that qualified. The Act also allowed all losses or tax credits to be carried forward to offset future income.

These incentives differ by area, and regions classified as 'development areas' enjoy more benefits. These areas include the states of Pahang, Kedah (including Pulau Langkawi), Malacca, Kelantan, Terengganu, Perlis, Sabah and Sarawak.

(Source: Muda, 1992)

APPENDIX B - Promotion of Investment Act 1986

Promotion of Investment Act 1986 and the range of incentives in the tourism industry include:

1. Accommodation sector including hotels, chalets, hostel and rest houses.
2. Non-accommodation sector such as safari parks, zoos and theme parks.

Under this scheme, an investor is given two options to choose:

- i. Pioneer Status - It is a modified form where it is no longer given on the basis of capital investment. Instead, a project, whether accommodation or non-accommodation type, will be given tax relief for a period of five years. Dividends paid to shareholders are also exempt from tax in the hand of shareholders.
- ii. Investment tax allowance - Allowance of up to 100% is given to capital expenditure within 5 years from the date of approval of the project. The allowance to be granted will depend on the features of the project, capital expenditure refers to expenditure incurred in respect of the following:
 - a. clearing of land for the purpose of a tourist project.
 - b. planting of trees or plants
 - c. construction of roads and other infrastructure facilities provided they are on land-forming part of the land used for the purpose of tourist projects.
 - d. provision of birds, animals and other exhibits.
 - e. provision of plant and machinery
 - f. provision of buildings, structural improvement on land used for purpose of tourist projects.

An Industrial Building Allowance in the form of an allowance of 2% is also granted as an additional incentive for an accommodation project in respect of the capital expenditure incurred by a pioneer company, or a company qualified for

investment tax allowance.

The additional incentives will encourage the construction of more hostels, chalets and rest houses, catering for the domestic tourist and the more price-conscious international tourist. Under the scheme, the minimum number of rooms required in order to qualify has been reduced from 40 rooms to 20 rooms in Kuala Lumpur and Penang, and 20 rooms to 10 rooms for other areas.

(*Source: Muda, 1992*)

APPENDIX C - Other Incentives

Other incentives provided by the government to further enhance investments in the tourism industry include:

1. Tax exemption on machinery and equipment - where custom duties and sales tax are waived for the purchase of equipment and machinery bought locally or imported for use of accommodation or non-accommodation projects.
2. Service Tax - government's tax on customers' charges on rooms, restaurants and entertainment are reduced from 10% to 5% in 1986.
3. Exemption of Service Tax - hotels that qualify for this exemption include those with 25 rooms and below, compared to the previous 6 rooms and below. This is to encourage the development of smaller hotels to cater for budget conscious tourists.
4. Incentives for Tour Operators - tour operators who bring in at least 500 foreign tourists through group inclusive tours will be exempted from tax in respect of income derived from the business of operating such tours.
5. Double Deduction for Promotional Expenditure - double deduction is granted to hotels and tour operators for expenditure incurred on overseas promotions. These are:
 - expenditure on publicity and advertisement on any media outside Malaysia.
 - expenditure on the publication of brochures, magazines and guide books, including delivery costs which are not charged to the overseas customers.
 - expenditure on market research to search for new markets overseas, subject to prior approval of the Ministry of Culture, Arts and Tourism.
 - expenditure which include fares to any country outside Malaysia for purposes of negotiating or securing a contract for advertising or participating in trade fairs or conference approved by the Ministry of Culture, Arts and Tourism. Such expenses are subject to a maximum of RM200 per day for lodging and RM100 per day for food for the duration of stay overseas.

- expenditure on organising trade fairs, conferences or forums approved by the Ministry of Culture, Arts and Tourism.
6. Double deduction on training programmes - allowed on expenses incurred in training programmes approved by the Ministry of Culture, Arts and Tourism in order to upgrade the level of skills and professionalism in the tourism industry.
 7. New Investment Fund - introduced in September 1985, this incentive was to stimulate new fixed investments in the manufacturing, agriculture and tourism sectors. Under this scheme, the Central Bank will channel government deposits to the commercial banks for on-lending. Its lending rate is computed as the average of the Base Lending Rate (BLR) of the two largest commercial banks, less 1.5% and this rate will float with the BLR. The minimum amount of financing is RM250,000 per project and the maximum being RM50 million. Funding is available up to 75% of the total cost of the project.
 8. Preferential Government Loans - available to indigenous Malaysians for the construction of low-cost tourist accommodation units. Each chalet loan is for RM7,000, available for 5-7 year period. This is to provide additional small-scale accommodation in areas such as the east coast and the island resorts. This will also provide alternative funds to enterprising local community who have difficulty in qualifying for personal loans, thus spreading the benefits of tourism to the rural population.
 9. Abolishment of import and excise duty - on CKD components of locally assembled tourist buses and limousines which qualified certain conditions.
 10. Abolishment of tax - pewter ware is included in the range of items, such as cameras, watches, lighters, fountain pens, transistor radios, perfumes and cosmetic products, which are made available as tax-free products to tourists.

(Source: Muda, 1992)

APPENDIX D

Visitors Survey Questionnaire



VISITORS SURVEY QUESTIONNAIRE

June 14, 1995

Dear Visitor,

I am a full-time student at the University of Strathclyde reading for my PhD degree in tourism.

The following questionnaire is designed for academic research. By completing this questionnaire, you will be providing me with valuable information which I can use in writing the thesis titled '**Managing Tourism in National Parks: Case Studies of Taman Negara and Kinabalu Park, Malaysia**'.

Before leaving the park, I will be grateful if you could leave the completed questionnaire at the Reception Office.

Your cooperation will greatly be appreciated.

Zainab Khalifah.

The Scottish Hotel School
University of Strathclyde
Curran Building
94 Cathedral Street
Glasgow G4 0LG.
Scotland.
Tel. 0141 - 552 4400
Fax. 0141 - 552 2870

SECTION A - Visitor Characteristics

We would like to get some information about your personal characteristics. It is strictly for statistical purpose. Please () or fill in the appropriate answers for each question.

1. Gender

- Male Female

2. Age Group (Years)

- Below 20
 20 - 29
 30 - 39
 40 - 49
 40 - 49
 50 - 59
 60 and above

3. Your occupation/profession : _____

4. Education status :

a. Presently,

- I am still studying I have completed my study

b. At what level?

- Lower secondary (SPM/'O' levels)
 Upper secondary (STPM/'A' levels/High school)
 Diploma
 University level

5. Gross Annual Income (Please whichever is applicable)

- Not applicable

	<i>US dollar</i>	<i>Malaysian RM</i>
10,000 and below	<input type="checkbox"/>	<input type="checkbox"/>
10,000 - 29,999	<input type="checkbox"/>	<input type="checkbox"/>
30,000 - 49,999	<input type="checkbox"/>	<input type="checkbox"/>
50,000 - 89,999	<input type="checkbox"/>	<input type="checkbox"/>
90,000 and above	<input type="checkbox"/>	<input type="checkbox"/>

6. Country of residence

- Malaysia, which state? (*please proceed to Section C*)
 Others, (*please specify*).....

SECTION B - For Non-Malaysian Resident/Foreigner

Please (☑) or fill in the appropriate answers for each question.

7. Is this your first trip to Malaysia?
 Yes No, times
8. Your purpose of visit to Malaysia.
 Holiday
 Business
 Visit friends/relatives
 Transit
 Conference
 Others (*please specify*).....
9. To what extent did the country's protected areas (i.e. national parks, wildlife reserves, etc.) INFLUENCE your decision to come here?
 Not applicable
 Not important
 Somewhat important
 Moderately important
 Important
 Very important
10. Source of information used to plan for your travel to Malaysia?
 Travel agencies
 Friends or relatives
 Published sources (e.g. guidebooks, newspaper articles, etc.)
 Tourism Malaysia overseas office
 Others (*please specify*).....
11. Number of days in Malaysia? _____ days
12. a. During this trip to Malaysia, did/will you visit the other protected area(s) in Malaysia?
 None at all (***please proceed to Section C***)
 Maybe
 Yes
- b. Please ☑ the place(s).
- | | | |
|--|--|---|
| <p><i>Peninsular Malaysia</i></p> <input type="checkbox"/> Taman Negara
<input type="checkbox"/> Endau-Rompin Park
<input type="checkbox"/> Pulau Redang MP
<input type="checkbox"/> Kuala Selangor NP
<input type="checkbox"/> FRIM, Kepong | <p><i>Sabah</i></p> <input type="checkbox"/> TAR Marine Park
<input type="checkbox"/> Sepilok
<input type="checkbox"/> Danum Valley
<input type="checkbox"/> Rafflesia Centre
<input type="checkbox"/> Kinabalu Park
<input type="checkbox"/> Turtle Island | <p><i>Sarawak</i></p> <input type="checkbox"/> Bako NP
<input type="checkbox"/> Niah Caves
<input type="checkbox"/> Gunong Mulu
<input type="checkbox"/> Semenggok |
|--|--|---|
- Others, (*please specify*).....

13. Please indicate the total/expected number of days of your stay at the above location(s), excluding this park?

Number of days _____

SECTION C - In the Park

Please or fill in the appropriate answer to each question.

14. Please indicate your travel arrangement to this park.

a. It is a :

- Package tour Non-package tour

b. You are travelling :

- Alone
 With a friend/partner/spouse
 In a group
 As a family (with children/relatives)

15. Why did you choose to visit this Park? (Please all that are applicable)

- It was in the itinerary
 Well known/famous
 As a diversion from city/beach vacation
 Short travel time
 Adventure
 Flora and fauna (plants/animals)
 Landscape/scenery
 Others, (*please specify*).....

16. Duration of your stay?

- Day trip only (*please proceed to No. 18*)
 Overnights, (*please specify*) nights

17. Type of accommodation used while visiting the Park?

- Stay at private accommodation outside the Park
 Hostel
 Twin-bed room
 Chalet
 Lodge
 Camping
 Others, (*please specify*).....

18. Activities that you have done while in the park. Please all that are applicable.

- Hiking to the highest peak
 Trail walking
 Boat ride
 Swimming
 Bird watching

19. a. Are you a member of any organisation related to outdoor activities or natural history? (e.g. Royal Society for the Protection of Birds, Sierra Club, Malayan Nature Society, etc.)

No (*please proceed to No. 20*)

Yes, (*please specify*).....

20. Please circle the number that best reflect the existing CHARGES in the Park?

- 0 Not applicable
- 1 Very low
- 2 Low
- 3 neither low nor high
- 4 High
- 5 Very high

- a. Entrance fee 0
- b. Camera fee 0
- c. Canopy-walkway 0
- d. Permit to the summit 0
- e. Accommodation 0
- f. Meals 0
- g. Park guide 0
- h. Porters 0

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

21. A major source of revenue for park management, including its conservation work, is from user-fees. Compare to the existing charges, do you agree that the following user-fees need to be INCREASED, subject to further studies.

- 0 Not applicable
- 1 Disagree strongly
- 2 Disagree a little
- 3 Maybe
- 4 Agree a little
- 5 Agree strongly

- a. Entrance fee 0
- b. Camera fee 0
- c. Canopy-walkway 0
- d. Permit (summit) 0
- e. Fishing 0

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

22. Do you agree to a two-tier 'entrance fee' for visitors to the park? (i.e. locals pay a lower fee than foreigners)

Yes

No

23. How would you RATE the existing visitor information/interpretation services provided by the park?

<i>Visitor Information</i> • Maps • Trail guides • Signposts • Brochures/leaflets • Publications • Checklist	<i>Visitor Interpretation</i> • Slides show • Guided walks • Display/exhibit • Canopy walkway • Mountain garden • Orchid Centre	0	Not applicable
		1	Very disappointing
		2	Disappointing
		3	As expected
		4	Better than expected
		5	Far exceeded expectation

a. Visitor Information	0	1	2	3	4	5
b. Visitor Interpretation	0	1	2	3	4	5

24. Which of the following best reflect the QUALITY of the visitor interpretation services? It is.....

- 0 Not applicable
- 1 Very poor
- 2 Poor
- 3 neither good / nor poor
- 4 Good
- 5 Very good

a. Informative	0	1	2	3	4	5
b. Educational	0	1	2	3	4	5
c. Entertaining	0	1	2	3	4	5
d. Stimulating	0	1	2	3	4	5

25. In your opinion, please circle the number that reflects the TECHNIQUES of communication that have been adopted by the Park for visitors.

- 0 Not applicable
- 1 Very poor
- 2 Poor
- 3 neither good / nor poor
- 4 Good
- 5 Very good

a. Brochures/leaflets	0	1	2	3	4	5
b. Maps/checklists	0	1	2	3	4	5
c. Publications/books	0	1	2	3	4	5
d. Guided walks	0	1	2	3	4	5
e. Self-guided trails	0	1	2	3	4	5
f. Wilderness trails	0	1	2	3	4	5
g. Park rangers	0	1	2	3	4	5
h. Souvenirs shop	0	1	2	3	4	5

26. Please provide the overall rating on your level of SATISFACTION while in the Park?

- 0 Not applicable
- 1 Most disappointing
- 2 Disappointing
- 3 As expected
- 4 Satisfying
- 5 Most satisfying

a. Accommodation	0	1	2	3	4	5
b. Meals	0	1	2	3	4	5
c. Park management	0	1	2	3	4	5
d. Park staff	0	1	2	3	4	5
e. Tour operator	0	1	2	3	4	5
f. Park guide	0	1	2	3	4	5

27. How would you rate the following FEATURES in the main attraction areas within the Park?

- 0 Not applicable
- 1 Very poor
- 2 Poor
- 3 neither good / nor poor
- 4 Good
- 5 Very good

a. Accessibility to locations	0	1	2	3	4	5
b. Cleanliness	0	1	2	3	4	5
c. Distribution of visitors	0	1	2	3	4	5
d. Wildlife sighting (birds/mammals)	0	1	2	3	4	5
e. Diversity of flora (plants)	0	1	2	3	4	5
f. Access to information	0	1	2	3	4	5

28. How much did you SPEND on the following services and items while in the park? Please leave it blank if not applicable.

Malaysian RM

- a. Porters _____
- b. Park guides _____
- c. T-shirts _____
- d. Postcards _____
- e. Books/publications _____
- f. Local handicrafts _____
- g. Others..... _____

Note: Do not include the amount spent on meals, accommodation & transportation

29. Will you RECOMMEND this Park to your friends/relatives?

Yes

Maybe

No

30. In your opinion, what could have been done to improve the quality and experience of your visit to this park?

We would like to thank you for your co-operation for participating in this survey. It is assured that all information provided in this survey will be treated with strict confidentiality. And finally, we do hope you have a pleasant stay while in this country.

Location : Taman Negara / Kinabalu Park (*circle where applicable*)

Date : _____

APPENDIX E

Local Community Questionnaire



LOCALS SURVEY QUESTIONNAIRE

We would like to get some information about your personal (details) characteristics. It is strictly for statistical purpose.

1. Gender

<input type="checkbox"/> Male	<input type="checkbox"/> Female
-------------------------------	---------------------------------
2. Your age : years
3. Race :.....
4. Marital status

<input type="checkbox"/> Single	<input type="checkbox"/> Married
<input type="checkbox"/> Widowed	<input type="checkbox"/> Divorcee
5. Number of children

a. Staying with you :
b. Staying away from you :
6. Your level of education

<input type="checkbox"/> No formal education
<input type="checkbox"/> Completed primary school
<input type="checkbox"/> LCE/SRP
<input type="checkbox"/> MCE/SPM
<input type="checkbox"/> HSC/STPM
7. Were you born in this area?

<input type="checkbox"/> Yes (<i>proceed to no. 9</i>)	<input type="checkbox"/> No
--	-----------------------------
8. Years of residency : years
9. a. Is this property yours?

<input type="checkbox"/> Yes	<input type="checkbox"/> No (<i>proceed to No.10</i>)
------------------------------	---

b. If yes, did you?

<input type="checkbox"/> Inherit it
<input type="checkbox"/> Bought it
<input type="checkbox"/> Given by the government
<input type="checkbox"/> Family owned (wife, husband, relatives)
<input type="checkbox"/> Others,

13. Are you satisfied with the current tourism development in the area?

Location : Kuala Tahan / Kinabalu Park
Village :
Date :
Time :

APPENDIX F

Park Managers Questionnaire



PARK MANAGERS QUESTIONNAIRE

SECTION A - Staff

1. Number of persons employed by the Park?

<i>Category</i>	<i>Total</i>	<i>Number involve with visitors</i>
a. Management
b. Naturalist/ecologist
c. Rangers
d. Clerical
e. Casual labourers
f. Others

2. Is the number of personnel adequate to :

- 1 Totally insufficient
- 2 Insufficient
- 3 Sufficient
- 4 More than sufficient
- 5 Excess

- a. Manage the level of visitors
- b. Protect the natural resources of the park

1	2	3	4	5
1	2	3	4	5

c. Please describe briefly your reasons for the answers provided :

.....

.....

.....

.....

3. What type of training did the park personnel receive to work with visitors?

Explain.

.....
.....
.....
.....

4. What is the main source of funding for the salaries of park personnel?

.....
.....
.....
.....

SECTION B - About the Park

5. Level of visitation and information on visitors

a. System of recording visitors to the park. How do you differentiate between day/overnight and local/foreign visitors?

.....
.....
.....
.....

b. Do you have any demographic information (age, profession, gender, country of residence, etc.) about the visitors? Please describe.

.....
.....
.....
.....

c. Do you think there is a problem of crowding/congestion of visitors in the main attraction areas during peak period?

.....
.....
.....
.....

d. If yes, is there a contingency plan to reroute visitors to other areas?

.....
.....
.....
.....

6. a. How many surveys have been conducted of visitors in the park? Please list.

.....
.....
.....
.....

b. Accessibility of the survey materials. Please elaborate.

.....
.....
.....
.....

7. Has there been any attempt to estimate the carrying capacity in the park? If yes, how was this done?

.....
.....
.....
.....
.....

8. User-fees (entry permits, camera, fishing, canopy, etc.)

a. Please describe the system for collecting the fees.

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b. Do you think there should be a different scale of fees for locals and foreigners?

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c. Does the income collected stay in the park? Please elaborate.

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d. When were the fees last revised?

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e. What has been the reaction of visitors to the existing fee level?

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- 9. Do you think the park has adequate budget to manage the increasing number of visitors while continuing to protect the natural resources? Explain.

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SECTION C - Overall

- 10. In brief, how do you perceive the visitors experience in the park?

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- 11. What is the impact of tourism on the park?

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- 12. In the park planning, is tourism taken into account? Please elaborate.

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- 13. Do you have an overall park management & development plan? Please elaborate.

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- 14. Are there any tourism expertise involve in the preparation of the park management or development plan? If yes, are they the park's staff or from other sources.

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SECTION D - Your Particulars

In this section, we would like to get some information about your personal characteristics. It is strictly for research purpose. Please the appropriate answer to each question.

- 15. Gender
 - Male
 - Female

16. Age : years

- 17. Level of Education completed
 - Lower secondary (MCE/SPM or lower)
 - Upper secondary (HSC/STPM)
 - Diploma
 - Bachelor's degree
 - Master's degree
 - Doctorate

- 18. a. Your position :
- b. Number of years in the present position?..... years
- c. Number of years employed by the park?..... years

Thank you for your cooperation.

APPENDIX G Legislation in Malaysia

	Land area (sq. km) ¹	Population ¹
Malaysia	330,355	18,400,000 (1991)
• P. Malaysia	132,750	14,303,000 (1988)
• Sabah	73,620	1,371,000 (1988)
• Sarawak	123,985	1,590,000 (1988)
Legislation (National)		
a. Environmental ¹	<ul style="list-style-type: none"> • Environmental Quality Act 1974 • Fisheries Act 1985 	
b. Tourism ²	<ul style="list-style-type: none"> • Tourism Industry Act 1992 <ul style="list-style-type: none"> ⇒ Tourism Industry (Tour Operating Business and Travel Agency Business) Regulations 1992 ⇒ Tourism Industry (Licensing and Control of Tourist Guides) Regulations 1992 ⇒ Tourism Industry (licensing of Tourism Training Institutions) Regulations 1994 	
Legislation (State)^{1,3}		
a. Peninsular Malaysia	<ul style="list-style-type: none"> • Town and Country Planning Act 1976 • National Parks Act No. 226 of 1980 (amended in 1983) • Protection of Wildlife Act of 1972 (Revised), 1976 • National Forestry Act 1984 • Aboriginal Peoples Act 1954 (Revised), 1974 	
b. Sabah	<ul style="list-style-type: none"> • Parks Enactment 1984 • Forests (Amendment) Enactment 1984 • Fauna Conservation Ordinance 1963 (amended in 1979) 	
c. Sarawak	<ul style="list-style-type: none"> • National Parks (Amendment) Ordinance 1990 • Wildlife Protection (Amendment) Ordinance 1990 • Forests Ordinance 1954 	

Sources:

¹ IUCN (1992); ² GOM (1992, 1994); ³ Sham (1993)

APPENDIX H Features Found in the Parks

Descriptions	Taman Negara	Kinabalu Park
<p><i>Attributes</i></p> <ul style="list-style-type: none"> • geomorphology • flora/ fauna 	<ul style="list-style-type: none"> • Mt Tahan (2,187 m), the highest mountain in Peninsular Malaysia • lowland vegetation 	<ul style="list-style-type: none"> • Mt Kinabalu (4,101 m), the highest mountain in South East Asia • lowland/montane vegetation
<p><i>Facilities</i></p> <ul style="list-style-type: none"> • main centre • other(s) 	<p>(refer Table 6.2 & Figure 6.7)</p> <ul style="list-style-type: none"> • <i>Kuala Tahan</i> (refer Table 6.2) main visitor centre with about 100 chalets, 64 beds hostel, restaurants, multi-purpose hall, interpretative centre, private accommodation • <i>Kuala Koh</i> 10 chalets, restaurant, 80 beds hostel, staff quarters • <i>Kuala Trenggan</i> 10 chalets • <i>Kuala Kenyam</i> 10 chalets 	<p>(refer Table 6.6 & Figure 6.9)</p> <ul style="list-style-type: none"> • <i>Kinabalu Park HQ</i> (1,554 m asl) hostels, twin-bed cabin, lodges, villa (refer Table 6.4 for rates and configuration); restaurants, shops, auditorium, interpretative centre • <i>Panar Laban</i> (3,300 m asl) Resthouse and cafeteria with heating, several mountain huts • <i>Sayat Sayat</i> (3,810 m asl) accommodation for mountaineers • <i>Poring Hot Spring</i> accommodation (resthouse & hostels), canteen, refreshment kiosk,
<p><i>Attractions</i></p> <ul style="list-style-type: none"> • within easy access • requiring efforts or competency 	<ul style="list-style-type: none"> • Kuala Tahan nature trails, overnight hides, rapids, cascading waterfall, salt licks, limestone cave, canopy walkway • Mount Tahan, 4 Steps waterfall, limestone caves 	<ul style="list-style-type: none"> • Park HQ mountain garden, nature trails, • Poring Hot Spring Orchid garden, canopy walkway, butterfly garden, hot spring pools, waterfall, bat caves, Rafflesia flower • Mount Kinabalu,
<p><i>Activities</i></p> <ul style="list-style-type: none"> • within easy access from main centre • requiring efforts 	<ul style="list-style-type: none"> • guided nature walk, caving, boat ride/rafting, birdwatching, wilderness trails, photography, nature study, • trekking to highest summit (9 days return journey) 	<ul style="list-style-type: none"> • guided nature walk, hiking, slide show, photography, birdwatching, nature study, swimming, • hiking to highest summit (2 days return journey), rock climbing at Southern Plateau