

## CHAPTER 3

### HISTORICAL PERSPECTIVE AND ADMINISTRATION IN CHARACTERISING FOREST RECREATIONAL AREAS

#### Forest Legislation, Forest Policy and Forest Recreation

Constitutionally, forestry is a State matter and it implies that legislations and executive authority vest with the respective State Government (Anon, 1992a). As such, each State is empowered to enact laws and regulations on forestry, as well as the right to formulate forest policy independently (Anon, 1992a). Although the independence of actions by the States on forestry matters are constitutionally guaranteed, but in reality there is a large degree of uniformity of actions in relation to forest administration, management, planning and forest renewal activities (Chin, 1993). For better understanding of forest recreation as it is today, it may be necessary to trace its development, as it relates to the promulgation and implementation of forest legislations and policies in Peninsular Malaysia.

#### Forest Enactment 1918

Forest conservation policy concerning forest recreation that was only put into effect in the late 1970s, evolved from an inadequate legal base for the protection of nature. The Forest Enactment 1918 for the Federated Malay States (Negeri Sembilan, Pahang, Perak and Selangor) was one of the earliest legal documents that regulated and recognised a system of Reserved Forests, to be set aside for the purpose of conservation of nature (Anon, 1918). Under the Act, lands that were gazetted as Reserved Forest were

no longer recognised as public domain or common property. These areas, the laws maintained, should be managed as Reserved Forest and should be preserved for prosperity (Anon, 1918). The Act also laid the foundation for a system of forest administration, regulations for reserved forest, protection of forest and forest produce, and subsequent formulation of forest rules on the exploitation of forest resources (Anon, 1918). This Forest Enactment was gradually extended to the other non-Federated Malay States (Johor, Kedah, Kelantan, Perlis and Terengganu) through their British Advisors, with minor modifications on the format of forest administration to commensurate with the administrative nature of the respective states. This accession of the Enactments represented an important step to formalising the conservation aspects of forestry in the Malay Peninsular (Kumar, 1986). However, these Forest Enactments contained no specific provisions regarding forest recreation, other than that as a component of Reserved Forest. As such, forest recreation was accorded the privilege of protection in areas gazetted as Reserved Forest, under Part II on Reserved Forest of the Forest Enactment 1918 for the Federated Malay States (Anon, 1918) and the respective Enactments for the non-Federated Malay States. This accordance of protection was vague and in reality, it was discouraging as it carried with it a threat of trespassing into the reserved forest, if recreation was “undertaken without a grant or contract in writing from the Resident, after reference to the Conservator and with the sanction from the State Council”, as stipulated in Section 19, Part II on Reserved Forest of the Forest Enactment 1918 (Anon, 1918). As such, the law was absolutely clear that trespassers were to be prosecuted (Anon, 1918), but in reality visitors to forested areas for recreation were tolerated, as a matter of custom or rather that the law could not be enforced, especially those staying near forest fringes (Hummel, 1992). Incidentally, the declared policy of the Forest Enactment 1918 was not fully implemented, or where they

were, haphazardly so since there was little, if any coordination among the States in Peninsular Malaysia (Kumar, 1986).

#### Forest Enactment 1934

The evolution of the Forest Enactment 1934 for the Federated Malay States was basically a further refinement of the Forest Enactment 1918, which laid emphasis on uniformity on issues of forest administration, regulation of forest produce and wood based industries (Anon, 1934). Similar to the earlier Enactment, this Enactment was also extended to the other non-Federated Malay States through their British Advisors, but with some differences in format and substances (Kumar, 1986). These Forest Enactments again, accorded no special preferences for forest recreation, save for the ancillary issue of protection which was equally applied to all areas of the Reserved Forest, as well as the ignominy on the need of use permit to recreate within these forest. Section 20 (e) of the Forest Enactment 1934 for the Federated Malay States was explicit in the requirement of a use permit:-

“Section 20                      Subject of the provisions of Section 22, no person shall  
in a reserved forest-  
(e) trespass in any manner not in this section  
herein before prohibited”

and, as such forest recreation was not encouraged. Although the Enactment was appropriate at the time, it was found to be deficient and weak in areas of forest management, planning and forest renewal activities during the 1970s and 1980s, where Government policy was in favour of sustained yield forest management (Anon, 1992a). In response to the changing needs of society, the National Forestry Council (NFC) set

up in 1971, agreed to review, up-date and uniformise existing State Enactments with the objectives of streamlining forest administration, management, conservation and forestry sector development (Anon, 1992c). These lead to the formulation of the National Forestry Act 1984 and the Wood-Based Industries Act 1987 (Anon, 1992a).

The NFC whose membership comprise of the States' Chief Minister, is chaired by the Deputy Prime Minister of Malaysia, is an effective forum for Federal and State Governments to discuss and to resolve common problems relating to forestry, as well as to ensure the development of common approaches and uniformity of actions among the States in Peninsular Malaysia on similar matters (Anon, 1992a).

#### Interim Forest Policy 1952

In consonance with the Forest Enactment 1934 for the Federated Malay States, as well as the respective Enactments for the non-Federated Malay States, was the promulgation of The Interim Forest Policy for the Federation of Malaya in 1952. The expressed aim of this policy was the recognition on the need to set aside an area equivalent to "25% of lands in the Malay Peninsular to be recognised as Permanent Reserved Forest and to be managed in such a way to supply timber and fuel requirements for a population of 12 million for agriculture, domestic and industrial purposes" (Anon, 1952).

Although the Interim Forest Policy 1952 was geared towards the enhancement of the administration and management of the national forest resources (Anon, 1993), it however gave scant acknowledgment of recreation on lands, which were reserved as

Productive Forest (Anon, 1952). Included within this category were Domestic Forest for the supply of forest produce for local consumption and Amenity Forest, which were reserved for aesthetic reasons (Anon, 1952). Although amenity forest was not defined in the policy statement, it could include recreation. Furthermore, the Interim Forestry Policy was necessary to oversee orderly clearing of forest lands for agriculture (Kumar, 1986), until land planning on a rational basis under the Land Capability Classification, was introduced (Freezaillah, 1982).

### Land Capability Classification

The evolvement of the Land Capability Classification (LCC) in Peninsular Malaysia in 1964 provided the framework upon which the existing land use policy was largely derived (Freezaillah, 1982). LCC was compiled on the basis of mineral potentiality, soil suitability and forest productivity classification and represented a single ordering of natural productive form of land-use, in terms of highest value added under present and foreseeable economic conditions (Freezaillah, 1982). The five land usages of the LCC were:-

- Class I : Land possessing a high potential for possible mineral development.
- Class II : Land possessing a high potential for possible agriculture development with a wide range of crops.
- Class III : Land possessing a moderate potential for possible agriculture development with a restricted range of crops.
- Class IV : Land possessing a high potential for possible productive forest development.

Class V : Land possessing little or no minerals, agriculture or productive forest potential, but suitable for possible development as protective forest, water catchment areas, game development as protective forest, water catchment areas, game reserves, and national parks. (Source: Freezaillah, 1982)

LCC not only provided the guidelines for land use, but also indicated the most appropriate areas where particular development activities could be best located (Freezaillah, 1982). Based on the above classification, mining had priority over agriculture, agriculture over forestry and forestry over water catchment areas, games reserves and national parks (Freezaillah, 1982). Although recreation was not catered for, it could be considered within the scope of forestry.

The opening up of the forest for land development schemes for agriculture by land development agencies such as Federal Land Development Authority (FELDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA) and various other State Land Development Agencies during 1960s and 1970s, saw the rapid depletion of the forest resources (Arshad, 1979). The rise in demand and price of tropical hardwoods in overseas markets, and the growth of wood-processing industries in Peninsular Malaysia accelerated the erosion of the forest base (Kumar, 1986). The FDPM felt that the Interim Forestry Policy 1952 was limited in scope and depth to meet the needs of a development orientated industrial sector (Kumar, 1986). As such, there was an urgency to update the earlier forest policy to reflect current developments (Kumar, 1986).

## Proposed Uniformed Forestry Act

A proposed Uniformed Forestry Act was prepared and forwarded to all states in the Peninsular Malaysia for their acceptance in the early 1970s (Kumar, 1986). Apart from making existing forestry laws uniform, the Act also strengthened forest administration and promoted uniformity of actions and approaches in forest development strategies (Kumar, 1986).

During the same period, demand on forest recreation in Peninsular Malaysia was beginning to be felt, as was reported by Abdul Manap (1966), Winston and Luqman (1972), Abdul Kadir (1983), Lai (1983). However, the inadequacy of both forest policy and law to accommodate this demand was evident (Abdul Manap, 1966; Winston and Luqman, 1972; Abdul Kadir, 1983). This Act was timely, as it gave direction for the orderly development of both forest administration and the wood-based industries. The proposed Uniformed Forestry Act was later superseded by the National Forestry Act in 1984, whereby more stringent forest management regimes on resource renewal were incorporated, to reinforce sustained yield concept (Chin, 1993).

## National Forestry Policy 1978

The National Forestry Policy 1978 adopted by the National Forestry Council (NFC) in 1978 seek to guide the development of the nation's forest resources, through the provisions of scientific management, in order to maximise social, economic and environmental benefits, which can be accrued from the forest (Anon, 1978). As such, this policy ensures uniformity in the implementation of all forest management, conservation and development strategies towards achieving common objectives (Anon,

1992a). Portions of the National Forestry Policy 1978 were not new, as parts of the policy were already operationalised in various existing State Forestry Enactments of 1934 and the Interim Forestry Policy 1952 (Chin, 1993). Nevertheless, the National Forestry Policy 1978 distinguished three kinds of forest as protective, productive and amenity, while activities associated with amenity forest include recreation, education and research (Anon, 1978). Section 1 (iii) of the National Forestry Policy 1978 was explicit of this association:-

“Section 1 (iii)	The conservation of adequate areas for recreation, education, research and the protection of the country’s unique flora and fauna; such lands being known as Amenity Forests.”
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The promulgation of the National Forestry Policy 1978 also lend credence to the emergence of forest recreation, as an important form of forestry activity, as were the subsequent statements on policy implementation-

“Section 4.1	The forest land which will be set aside for the Permanent Forest Estate will not only meet the increasing demand for wood and other forest products, but will also ensure that environmental and soil conservation, watershed management, wildlife, recreational, aesthetic, research and educational requirements are satisfied.
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Section 24	Facilities for recreation in forests, such as look-out, picnic spots, forest parks and areas of natural beauty, should be provided and preserved and the community
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should be encouraged to make optimum use of such facilities.”

Though forest recreation was given credence under the National Forestry Policy 1978, there was however, no clear guidelines for the development of forest recreation (Chin, 1993) other than the listing of facilities to be considered in the development of Forest Recreation Areas (FRAs), and much was left to the ingenuity of the District Forest Officer of the time and this had resulted in both *ad hoc* (Wan Sabri et al., 1983; Chin, 1993) and “elitist” development (Anon, 1994) of FRAs in Peninsular Malaysia. However, the advantage of a declared forest policy, in a rapidly changing government bureaucracy was a formalising of all issues that were relevant to forestry (Chin, 1993), including those of forest recreation.

#### National Forestry Policy 1978 (Revised 1992)

The subsequent revision of the National Forestry Policy 1978 in 1992, was a reflection on the sustainability of forest resource management and development (Anon, 1993). The attention on forest resource had shifted from one, which is solely dependent on timber production to other multiple-values, which include the needs of socio-economic development, the protection of the environment and the conservation of forest resources (Anon, 1993). As such, the revision of the National Forestry Policy in 1992 incorporated more comprehensive approaches that address in greater depth the requirements for sustainable management, development, conservation and control of the resource to fulfill the needs of the people, industry and protection of the environment (Anon, 1993).

Included in the Revised Policy were eight new provisions, in addition to the existing provisions of intensifying forest resource conservation, management, protection, utilisation and development (Anon, 1993). The new provisions encompassed forest legislation, forest plantation, agro-forestry, non-wood forest product, community forestry, conservation of biological diversity and special scientific values (Anon, 1993). Under this policy, forest recreation and tourism were recognised as the main components of community forestry and the obligation to develop them to suit with the requirements of the rural and urban communities (Anon, 1993). Forest recreation, which was included within amenity and community forestry, was finally put on par with forest production and forest protection. The relevant sections in the policy statements and their implementation policy reflected this recently acquired recognition. The policy statements were as follows:-

“Section 2.2.1.3      Amenity Forests for the conservation of adequate forest areas for recreation, ecotourism and public awareness in forestry.

Section 2.2.15      To develop a comprehensive programme in community forestry to cater for the needs of the rural and urban communities.”

as was the policy implementation statements which included,

“Section 3.15.1      Community forestry programme will be intensified to cater for public needs in recreation and tourism.”

Complementing the National Forestry Policy 1978 (Revised 1992) was the National Forestry Act 1984, which was passed by an Act of Parliament in 1984 (Anon, 1992a). This Act provided for the State Government to manage the forest not only for timber, but also to promote multiple-use such as forest conservation, protection, recreation and education concepts (Anon, 1992a). In addition, under this Act legal recognition was also given to forest recreation, as a specific activity within the ambit of Amenity Forest. Notwithstanding, Section 4 (e) of the Act defined the duties and responsibilities of the State Director of Forestry in areas covering amenity forest and among his other duties, were:-

“Section 4 (e)            The Director shall cause to be prepared and  
implemented programmes relating to amenity forests”,

while Section 10 (1) of the Act allowed the State Director of Forestry to classify the Permanent Reserved Forest into eleven functional classes, one of which is amenity forest, whose activities might include recreation. The details were as follows:-

“Section 10 (i)            The Director, with the approval of the State Authority,  
shall by notification in the Gazette, classify every  
permanent reserved forest under one or more of the  
following classification which shall be descriptive of the  
purposes or purpose for which the land is being or  
intended to be used:-  
(h) amenity forest”.

Similar to the earlier Forest Enactment 1934, the National Forestry Act 1984 also emphasised on the necessity of use permit for activities undertaken within the permanent reserved forest. Section 34 (c) of the Act was explicit on the subject of use permits, which include research, education, recreation, use of water resources, cultivation of vegetables, establishment of conversion plants and establishment of logging infrastructures for activities to be carried out. Salient points of Section 34 were as follows:-

“Section 34    Use permits may, subject to any contrary direction by the State Authority and to the provisions of any rules be issued or renewed on behalf of the State Authority by the Director for carrying out of any of the following activities,  
  
                  (c) recreation”

Section 45 of the Act elaborated on the criteria of both open and closed forest. The former allowed free access by public without the requirement of use permit, whereas access to the latter was subjected to the application of use permit. Salient points of Section 45 were as follows:-

“Section 45    The State Authority may, by notification in the Gazette, declare any permanent reserved forest or part thereof to be an open forest or closed forest, and until a permanent reserved forest or part thereof has been so declared to an open forest it shall be declared a closed forest.”

Section 56 of the Act gave the financial basis to the management of forest, while Section 58 elaborated on the purpose of the fund and among other activities, may

include the preparation and implementation of programmes relating to amenity forest.

The details of which were:-

“Section 58 (d) the preparation and implementation of programmes relating to amenity forests.”

As such, the prominent features that emerged from the National Forestry Act 1984 in relation to forest recreation, were the legal requirements on the part of the State Directors of Forestry to develop amenity programmes, classification of forest on functional basis (including amenity forest) and the declaration of open forest which negated the necessity of use permits. All these were positive developments relative to forest recreation, within the permanent reserved forest.

#### Implication of Current Legislation and Policy on Forest Recreation

As opposed to the earlier forestry policies (Interim Forestry Policy 1952, National Forestry Policy 1978), which were lucid on forest recreation, the National Forestry Policy 1978 (Revised 1992) gave further clarity on the definition on amenity forest, “ which include forest recreation, ecotourism and public awareness”, and together were recognised as components of community forestry (Anon, 1992c). In tandem with this, the National Forestry Act 1984 not only provided the legal backing for the existence of amenity forest, but also the provisions to declare any part of the Permanent Reserved Forest, as open forest to circumvent the necessity of use permit for participants in forest recreation. These dual processes of legislation and policy provided the necessary impetus for forest recreation to assume a separate identity, on par with

both productive and protective forest. Thus laid the genesis for the development of forest recreation in Peninsular Malaysia.

From the passages of the National Forestry Act 1984, the National Forestry Policy 1978 and its revision in 1992, it could be gleaned that FRA that were developed within the amenity forest, were to achieve the following objectives:-

1. Conserving adequate forest areas for recreation, education, research and the protection of the country's unique flora and fauna (Anon, 1978).
2. Maximising social, economic and environmental benefits for the nation and its people in accordance with the principles of sustainable management (Anon, 1993).
3. Creating awareness and appreciation among the public of the importance of forestry to the community, since tropical forest serve as a valuable source of recreation (Anon, 1993).
4. Increasing the production of non-wood forest produces through scientific and sustainable management practices to supplement local demand (Anon, 1993).
5. Providing comprehensive programmes in community forestry to cater for the needs of the rural and urban communities (including recreation) (Anon, 1993).
6. Providing facilities for pleasure and rest in the forest areas in the form of look-outs, picnic spots, forest parks and areas of natural beauty, and community should be encouraged to make optimum use of such facilities (Anon, 1978).

7. Providing opportunities for outdoor recreation, including picnicking, camping, hiking and swimming (Anon, 1992c).

However, through the passage of time these objectives not only remained noble targets to achieve but also through time, changes in pattern of use, taste and demand, also warranted changes in both objectives and priorities (Anon, 1994). As such, sustainable development and management of forest recreation may require a new set of objectives, development guidelines and management system (Anon, 1994). Consistent with the FDPM's "Vision" and "Mission" Charter, a detailed analyses of both recreational resources and opportunities may be in order to guide the Department in its quest to meet current and future challenges in forest recreation. Management strategies, functions and operations are derived from an understanding of these resources, while sustainable management uses the knowledge about the area's resource to best manage the area, thereby ensuring its sustainability relative to physical, environmental, sociological and economic conditions (Anon, 1994). As such, it may result in the realignment of approaches in planning, development and management of the existing FRA.

Having reviewed the implications of various forest legislations and policies to forest recreation, there is also a need to examine the instrument of its administration, which is the FDPM.

#### Administration

The FDPM is under the auspices of the Ministry of Primary Industries, Malaysia

(MPI) and is charged with the responsibility of effective management of forest resources in Peninsular Malaysia (Anon, 1992a). It comprises of Federal Forestry Department and ten State Forestry Departments, each under the control of the respective State Governments (Anon, 1992c). Major function of FDPM is to advice and to co-ordinate forestry development activities with the State Forestry Departments (Anon, 1992c). These include forest development programmes, forest sector planning, administration and development of the resource policies and strategies, formulation for the orderly establishment of wood-based industries, provisions of guidelines for forest management plan preparation and sustained yield management, and to provide for education and training (Anon, 1993). The commitment of the FDPM to execute the above functions is formalised in the "Vision" and "Mission" Charter of the Department (Anon, 1995b). Their salient points include:-

- "1. Vision To be recognised as the agency of excellence in the sustainable management of tropical forest.
- 2: Mission To sustainably manage and develop the forest resources and optimise their contributions to national socio-economic development."

This underlying principle of the FDPM's "Vision" and "Mission" is sustainable management of the nation's forest, such that the next generation will continue to receive the benefits accrued from the many goods and services provided by the forest. Infrastructural linkages of the FDPM, comprising of the three members Directorate, ten Forestry Department Divisions and ten State Forestry Departments are already in placed to implement the above Charter (Anon, 2000) (Figure 1).



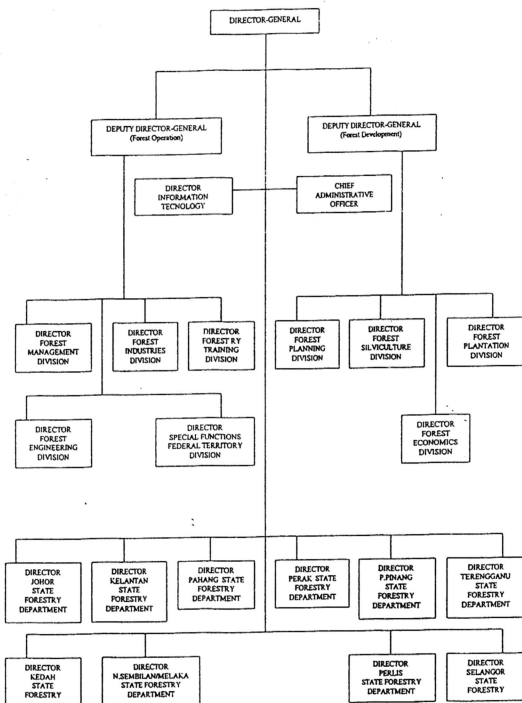


Figure 1. Organisation of the Forestry Department Peninsular Malaysia

Source: Anon (2000)

In 1999, the FDPM consisted of 144 professional foresters, 137 sub-professional foresters, 555 technical and clerical staff and 4,466 field staff (Anon, 2000) (Table 1). In addition, forest administration activity is closely coordinated with other related forestry agencies, such as Forest Research Institute, Malaysia (FRIM) for research and development inputs, University Putra of Malaysia (UPM) for research, institutional and human resource development, Malaysian Timber Industry Board (MTIB) for marketing and trade inputs and the Malaysian Timber Council (MTC) for addressing timber requirements of the wood-based industries, promoting timber trade, and providing training and technical services to the industries (Anon, 2000).

#### Forest Recreation in Peninsular Malaysia: Past and Present

The tropical forest contain a wide variety of attractive landscape (Litton 1972), flora (Anon, 1992a; Anon, 1994) and fauna (Jasmi, 1993), rivers (Lai, 1983; Lai and Amat Ramsa, 1993) and geological features (Chin et al., 1996), which people seek in outdoor forest recreation (Chin et al., 1996).

During the formative days of Peninsular Malaysia, which was similar to those experienced in North America and Western Europe, forest recreation was not only restricted to forages by people living in the vicinity of the forest for food, fuel and building materials, but also derived some leisure from participating in the above activities (Jubenville, 1976; Pigram, 1983; Douglass, 1990). However, the thrust of such activities was more on sustenance than on recreation (Jubenville, 1978). These people were generally well-oriented personally, careful with fire, left little litter and causing minimal disturbances to the ecology of the area (Hummel, 1992). They enjoyed the

Table 1. The Forestry Department Peninsular Malaysia

Category	No. of Staff		
	H.Q.	States	Total
Professional	63	81	144
Sub-Professional	63	74	137
Technical and Clerical	95	460	555
Others (including Field Staff)	85	4,381	4,466
Total	306	4,996	5,302

Source: Anon (2000)

experience of forest recreation, as everything had to be provided by themselves because few, if any, facilities were available at the time (Hummel, 1992).

During the colonial era (prior to 1957), what little interest shown in outdoor forest recreation was restricted to the precincts of hill resorts, where the colonials seek refuge from the tropical heat (Windstedt, 1962), as well as certain hunting grounds which were almost monopolised by the colonials and local elite, while the rural communities still continued to practice sustenance recreation (Abdul Kadir, 1983). Outside these groups, the forest was presumably seen in non-recreational utilitarian terms (Abdul Kadir, 1983).

In response to the colonials search of cool refuge, hilly forested areas were carved out as hill resorts (Abdul Kadir, 1983); Penang Hill was established in the late

1800s, Kledang Hill, Perak in 1892, Bukit Kutu, Selangor in 1893, while Maxwell Hill, Perak; Gunong Angsi, Negeri Sembilan; Fraser Hill and Cameron Highlands, Pahang and Gunong Jerai, Kedah were completed by early 1920s (Abdul Kadir, 1983).

During the early era of post independence Malaysia, especially in Peninsular Malaysia emphasis was placed in maximising economic growth through modernisation of the rural primary sector (Arshad, 1979; Freezaillah, 1982; Abdul Kadir, 1983; Kumar, 1986). As such, large tracts of forested land were cleared for agriculture (Ashad, 1979) and at the same time the thrust in the forestry sector was both for export and local consumption (Freezaillah, 1982; Kumar, 1986). During this period, these developments brought forth a growing concern for environmental protection (Abdul Manap, 1966; Winston and Luqman, 1972), as well as the awareness on multiple-values of the forest, other than solely for timber production (Anon, 1993), and with it the emergence of the concept of amenity forestry (Abdul Kadir, 1983).

Progress in the development of forest recreation had been remarkable, since the promulgation of the National Forestry Policy 1978, as there were many reasons for the establishment of FRAs in Peninsular Malaysia. Among those reasons might include, as an example of a natural science museum (Anon, 1992c), to encourage the public to enjoy the aesthetic beauty of the forest (Abdul Manap, 1966), recreation (Winston and Luqman, 1972; Wohlfarth, 1982), to bring awareness to the public of the importance of preserving the environment, especially the forested areas (Abdul Manap, 1966; Winston and Luqman, 1972; Abdul Kadir, 1983; Wan Sabri et al., 1983; Chin, 1993; Wong, 1994) and a place for relieving the stress and strains of modern day living (Wan Sabri, 1993).

Although some form of forest recreation were established by the respective State Forestry Departments during the 1950s (Gunong Ledang, Johor), 1960s (Gunong Jerai, Kedah), and early 1970s (Ulu Bendol, Pasir Panjang, N. Sembilan; Telok Bahang, P. Pinang; Gunong Pulau, Johor), forest recreation development really took-off during the Third Malaysia Plan period (1976-1980), where 14 FRAs, encompassing 230 hectares were established, 23 (1,497 hectares) were established by the Fourth Malaysia Plan period (1981-1985). By the Fifth Malaysia Plan period (1986-1990), the number of FRAs had increased another 20 sites encompassing 1,606 hectares (Chin et al., 1996), while another 11 FRAs encompassing 2,608 hectares were developed by the Sixth Malaysia Plan period (1991-1995) (Chin et al., 1996). During the Seventh Malaysia Plan (1996-2000), another 25 FRAs were developed (Anon 2000). In all, a total of 99 FRAs encompassing 9,796 hectares or 0.07% of the Permanent Reserved Forest were established, in Peninsular Malaysia.

The distribution of FRAs among the States of Peninsular Malaysia is shown in Table 2 and their locations in Figure 2. The rate of FRA establishment during the Third, Fourth, Fifth, Sixth and Seventh Malaysia Plan period, were 14%, 23%, 20%, 11% and 25%, respectively of the total numbers of FRA in Peninsular Malaysia (Table 3). In terms of area, their growth were most prominent during the Fourth, Fifth, Sixth and Seventh Malaysia Plan period, where they constitute 15%, 16%, 27% and 39%, respectively of total area (Table 3). However, forest recreation is just not restricted to the effective used area (effective recreation area), but also include a bigger catchment area, which is needed to provide a wider spectrum of recreation opportunities. As such, beginning with the Fourth Malaysia Plan the average size of the FRA increased from 65 ha to about 100 ha by the Seventh Malaysia Plan, to accommodate the desired elements

Table 2. Distribution of FRA in Peninsular Malaysia, 1999

State	Code	FRA	Location
JOHOR	J1	Gunong Arong	Mersing
	J2	Panti	Kota Tinggi
	J3	Gunung Belumut	Kluang
	J4	Gunung Lambak	Kluang
	J5	Gunong Pulau	Kulai
	J6	Gunong Ledang	Tangkak
	J7	Kota Tinggi	Kota Tinggi
KEDAH	K1	Bukit Wang	Jitra
	K2	Batu Hampar	Yan
	K3	Lata Bayu	Baling
	K4	Lata Mengkuang	Sik
	K5	Pahau	Kulim
	K6	Puncak Janing	Padang Terap
	K7	Lubuk Semilang	Langkawi
	K8	Seri Perigi	Yan
	K9	Sungai Badak	Kuala Muda
	K10	Sungai Kunyit	Gurun
	K11	Sungai Rambai	Pendang
	K12	Sungai Teroi	Yan
	K13	Taman Perangin	Sik
	K14	Telaga Tujuh	Langkawi
	K15	Bukit Hijau	Baling
	K16	Pasir Tengkorak	Langkawi
	K17	Air Terjun Temurun	Langkawi
	K18	Gua Cherita	Langkawi
	K19	Lata Lembu	Alor Setar
	K20	Tupah	Alor Setar
	K21	Gurun Kuari	Alor Setar
	K22	Titi Hayun	Alor Setar
	K23	Tasik Dayang Bunting	Langkawi
	K24	Tasek Pedu	Kuala Nerang
	K25	Sg. Sedim	Kulim
	K26	Bukit Enggang	Alor Setar
KELANTAN	D1	Bukit Bakar	Machang
	D2	Jeram Lintang	Machang
MELAKA	M1	Ayer Keroh	Ayer Keroh
NEGERI SEMBILAN	N1	Gallah	Mantin
	N2	Jeram Toi	Jelebu
	N3	Pantai Lenggeng	Lenggeng
	N4	Pasir Panjang	Port Dickson
	N5	Serting Hulu	Simpang Pertang
	N6	Ulu Bendul	Kuala Pilah
	N7	Batu Maloi	Johol
	N8	De Bana	Kuala Pilah
	N9	Gunong Tampin	Tampin
	N11	Gunong Datuk	Tampin
	N12	Jeram Tengkek	Batu Kikir

State	Code	FRA	Location
PAHANG	C1	Kemasul	Temerloh
	C2	Lata Jarum	Raub
	C3	Lentang	Bentong
	C4	Mencali	Rompin
	C5	Parit Falls	Tanah Rata
	C6	Sungai Pandan	Kuantan
	C7	Teladas	Temerloh
	C8	Telok Cempedak	Kuantan
	C9	Terenggun	Kuala Lipis
	C10	Kampong Asah	Pulau Tioman
	C11	Gunong Senyum	Felda Jengka 23, Temerloh
	C12	Konifer	Bukit Tinggi, Lentang
	C13	Jeram Nusa	Jerantut
	C14	Ulu Tembling	Kuala Tahan
	C15	Bukit Bertangga	Bera
	C16	Lata Serandang	Kuala Lipis
PERAK	A1	Kuala Woh	Tapah
	A2	Lata Iskandar	Tapah
	A3	Ulu Kinta	Batu Gajah
	A4	Kaki Bukit Larut	Taiping
	A5	Lata Kekabu	Lenggong
	A6	Pulau Pangkor	Pulau Pangkor
	A7	Ulu Kenas	Kuala Kangsar
	A8	Papan	Batu Gajah
	A9	Kuala Sepetang	Kuala Sepetang, Taiping
	A10	Pasir Panjang	Manjung
	A11	Lata Kijang	Batang Padang
	A12	Pulau Lata Kecil	Hulu Perak
	A13	Sg. Nyiur	Larut Matang
	A14	Sg. Salu	Kinta Manjung
PERLIS	R1	Bukit Kubu	Kuala Perlis
PULAU PINANG	P1	Bukit Mertajam	Bukit Mertajam
	P2	Pantai Keracut	Pantai Acheh
	P3	Sungai Tukun	Pantai Acheh
	P4	Telok Bahang	Telok Bahang
SELANGOR	B1	Ampang	Ampang
	B2	Kanching	Rawang
	B3	Sungai Tekala	Kajang
	B4	Sungai Chongkak	Ulu Langat
	B5	Sungai Tua	Ulu Yam
	B6	Komenwel	Rawang
	B7	Taman Rimba Negeri Kuala Langat Selatan	Sepang
	B8	Taman Rimba Sungai Tinggi	Tanjung Karang
TERENGGANU	T1	Lata Tambakah	Jertih
	T2	Rantau Abang	Dungun
	T3	Sekayu	Kuala Brang
	T4	Tanjong Gadong	Dungun
	T5	Rasau Kerteh	Kerteh
	T6	Bumbung Raja	Pasir Raja
	T7	Lata Payong	Setiu

State	Code	FRA	Location
WILAYAH PERSEKUTUAN	W1	Bukit Nanas	Kuala Lumpur

Source: Chin (1993), Chin et al. (1996), Anon (1994, 2000)





Table 3. Growth of FRA in Peninsular Malaysia

Malaysia Plan	Period	FRA				
		No.	Cumulative No.	Area (ha)	Cumulative Area (ha)	Ave. Size (ha)
First	1966-1970	2	2	14	14	7.00
Second	1971-1975	4	6	45	59	11.25
Third	1976-1980	14	20	230	289	16.43
Fourth	1981-1985	23	43	1497	1786	65.09
Fifth	1986-1990	20	63	1606	3392	80.30
Sixth	1991-1995	11	74	2608	6000	231.09
Seventh	1996-2000	25	99	3796	9796	98.95

Source: Chin (1993), Chin et al. (1996), Anon (1994, 2000)

of diversity in recreation (Figure 3). From a broad management perspective, quality in outdoor recreation is equated with the provisions of diverse recreational opportunities (Anon, 1994).

It was during the Fourth Malaysia Plan period (1981-1985) that a separate financial vote for developing FRAs was set aside by both Federal and State Governments. Between the Fourth and the Seventh Malaysia Plan period, financial allocation grew from RM 5.5 million in 1981 to RM 70.3 million in 1996 or a 118% increase (Table 4), reflecting the importance that the authorities attached to forest recreation. Similarly, expenditure for forest recreation also increased likewise.

The FRAs that were developed in the early years were of a rudimentary nature with provisions for access, benches and clearings for picnic spots (Wan Sabri et al.,

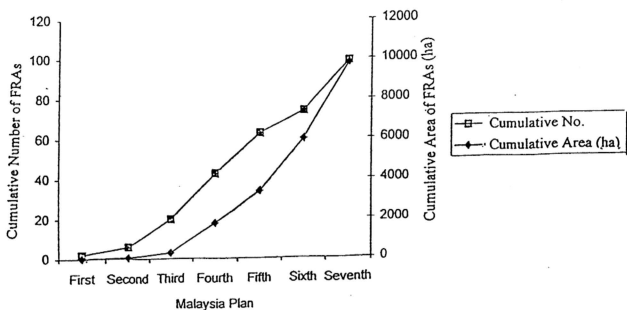


Figure 3. Development of FRAs in Peninsular Malaysia

Table 4. FRA Financial Allocation and Expenditure (RM million)

Malaysia Plan	Period	Allocation	Expenditure
First	1996-1970	*	*
Second	1971-1975	*	*
Third	1976-1980	*	*
Fourth	1981-1985	5.5	5.6
Fifth	1986-1990	11.9	7.9
Sixth	1991-1995	20.6	19.2
Seventh	1996-2000	70.3	68.4

\*No actual allocation, but expenditure incurred during this period were paid from other forestry programmes

Source: Chin (1993), Chin et al. 1996), Anon (1994, 2000)

1983). As recreational needs grew, rustic facilities and a few amenities were added, primarily as a result of improved social and economic conditions of the country (Wong, 1994), and also on the interest of the District Forest Officer at the time (Chin, 1993). The development of FRAs was labour intensive, and materials at hand were used. This heavy rustic style that resulted, fitted neatly into the landscape (Wong, 1994).

Provisions of minimal facilities, while emphasizing on pleasant surroundings of the FRAs were generally the style of forest recreation management, until the present time. However, this management style has resulted in the unconscious zoning of the FRAs in Peninsular Malaysia on a “honey-pot” or “elitist” principle. The “elitist” approach hinges on the ability to coax or to induce demand, whereby the benefits of recreation are accrued by a handful of visitors (Anon, 1994), which unfortunately does not reflect majority preferences. Under this system of management, FRAs in Peninsular Malaysia are managed either for forest recreation or nature conservation. FRAs that were proven to attract “elite” groups of visitors were ear-marked for further development, which include well-laid foot paths, benches, picnic sites, play area for children, weather shelters, car-parks and toilets, while others as a result of their inability to “attract” visitors due to poor access, poor public transportation system, remoteness, and inherently less attractive landscape be designated for nature conservation (Hummel, 1992).

As a result, they continued to be disadvantaged in terms of infrastructural development, while the “elite” FRAs will continue to be endowed with more concentration and aggregation of facilities, to maintain their cutting-edge in forest recreation. This system of forest recreation management, which was developed on an *ad*

*hoc* basis (Chin, 1993), with top-down approaches (Wong, 1994; Anon, 1994) and managed on an “elite” basis, seems adequate for managing the existing FRAs, and set the style for many decades, as to what the public admired and expected in outdoor forest recreation. Examples of such “elite” FRAs in Peninsular Malaysia include those in Gunong Ledang in Johor, Gunong Jerai in Kedah and Air Keroh, Melaka, Ulu Bendol, N. Sembilan, Lentang in Pahang, Kuala Woh in Perak, Congkak in Selangor and Sekayu in Terengganu.

This style of management practice for FRAs in Peninsular Malaysia was adequate previously, as the demand for forest recreation was low (Wong, 1994). However, in the face of improved socio-economic conditions in the country (Anon, 1993; Wong, 1994), increased public demand for outdoor recreation (Berkmuller et al., 1992; Mohd Nasir, 1993), higher expectations of the recreationists (Wan Sabri, 1993), and recreation be undertaken within the resource carrying capacity (Washburne, 1982; Pigram, 1983), this system of management appears to be inadequate to cope with this situation.

Evidence of site deterioration within the “elite” FRAs supported this observation (Anon, 1994). Patches devoid of vegetation, natural resources damaged by recreationists common, fire occurrences due to careless campers; and uncontrolled collection of firewood in campsites, are some of the early warning signals on the limitations of this management system. As such, some management measures may have to be taken to ensure that recreation is undertaken within the resource capacity. Some of the frequently applied management measures used in the developed countries, may be adopted for use in this country. These include site hardening (Jubenville, 1978),

imposition of some management control such as entrance fees (Pigram, 1983; Douglass, 1990), parking charges (Glyptis, 1991) and lastly partial closure to allow for sites' recovery (Pigram, 1983). Currently, such management measures are alien to the Malaysian situation, since FRAs are managed as "public goods", and as such opportunities for recreation are provided to the public for free, to encourage their participation, with minimal disturbances to the resource. However, due to the current situation, some of these management practices may have to be imposed to ensure the continued provision of equal recreation opportunities among the existing FRAs in Peninsular Malaysia. Thus, there is a need to look into the impact of forest recreation using appropriate environmental indicators, to enable pragmatic strategies be developed, and this is the thrust of this study.