

# Perak Forest Resources

- What Is the distribution of forest in Perak?
- Are Perak's forests managed sustainably?
- How much wealth is generated from Perak's forests?

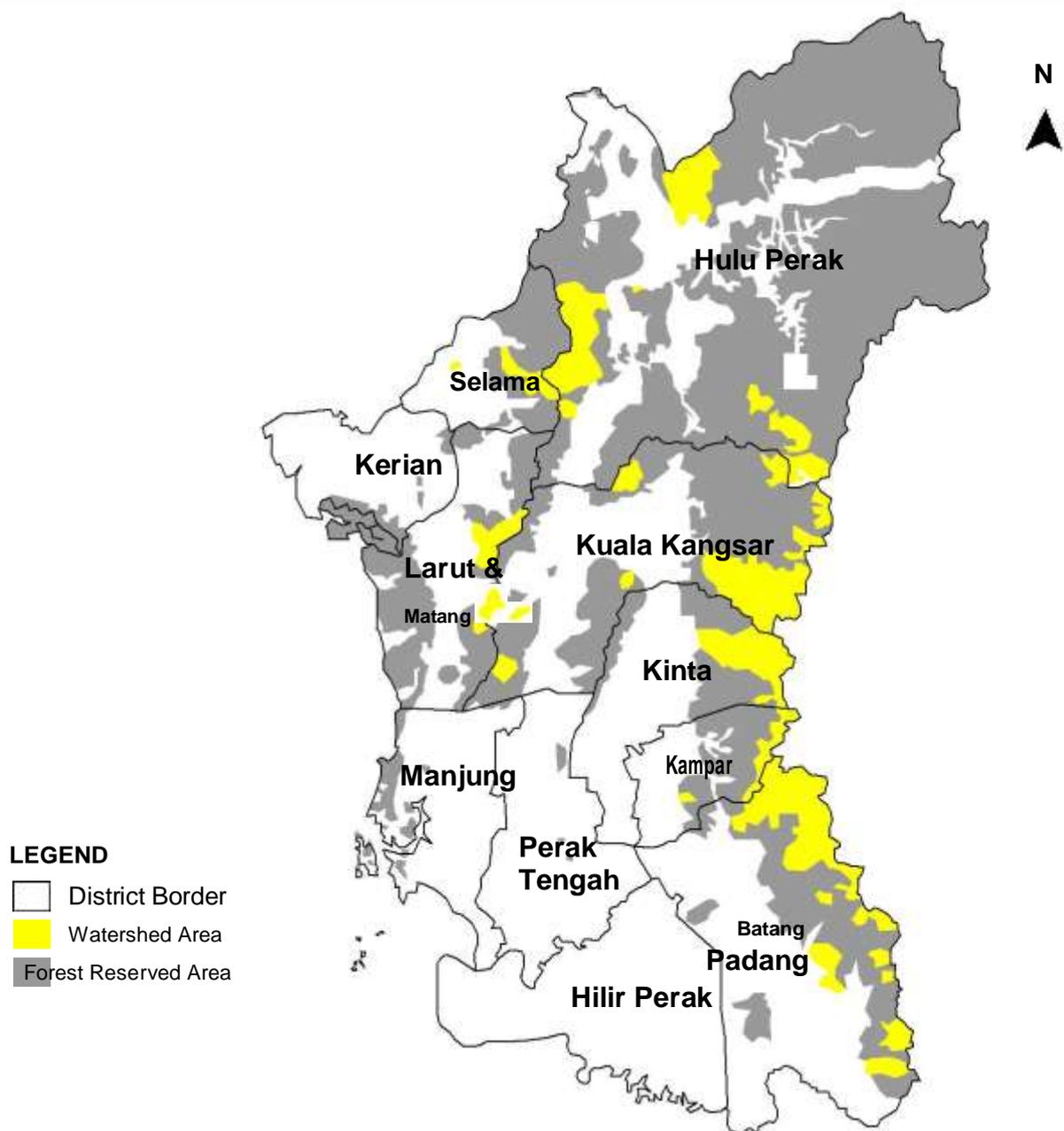


Figure 1, Forest cover in Perak represents a sizeable area of the state.

## FOREST RESOURCES

Perak is well endowed with large tracks of forest supporting diverse flora and fauna. These forests are distributed from the sea to the mountains, with mangroves along the coastal zone. The Perak forests are diverse, supporting many families of tropical hardwood trees, especially Dipterocarps, which grow to exceptional sizes over hundreds of years. Various types of forest are found within the State, including the tall hardwoods of the lowland and hill forests, and the stunted, montane trees that form the central forest spine bordering Pahang and Kelantan.

For centuries forests have provided us with a wealth of natural resources, including timber, foods, water, and medicinal herbs. In recent years, the values of our

forests for carbon sequestration and carbon storage have also been realised. Most importantly, the forest is a source of revenue for the nation, therefore, it must be managed in a sustainable manner to ensure that future generations can benefit from its legacy.

At the end of 2014, the total forest area in Perak was estimated to be 1,022,274 ha., or 48.63% of the total land area of the state; of which, 999,967 ha., has been gazetted as Permanent Reserved Forest (PRF). In terms of forest types, in 2014, it was estimated that Perak had 899,576 ha., of inland forest; 43,888 ha., of mangrove forest; and, 2,117 ha., of forest plantation (see *Table 1* and *Figure 2*).

<b>Land Area</b>			<b>2,102,200</b>
<b>Forested</b>	<b>Permanent Reserved Forest (PRF)</b>	<b>Gazetted</b>	<b>995,217</b>
		Proposed	4,750
		Total	999,967
	Wildlife Reserve	In PRF	-
		Outside PRF	3,161
	State Park		117,500
	Stateland Forest		19,146
	Total	(ha)	1,022,274
	%	48.63	
<b>Non-Forested</b>	Total	(ha)	1,079,926
		%	51.37

Table 1: Forested and Non-Forested Area, 2014 (ha)  
Source: Institut Darul Ridzuan (Extract from Department of Statistics, Malaysia)

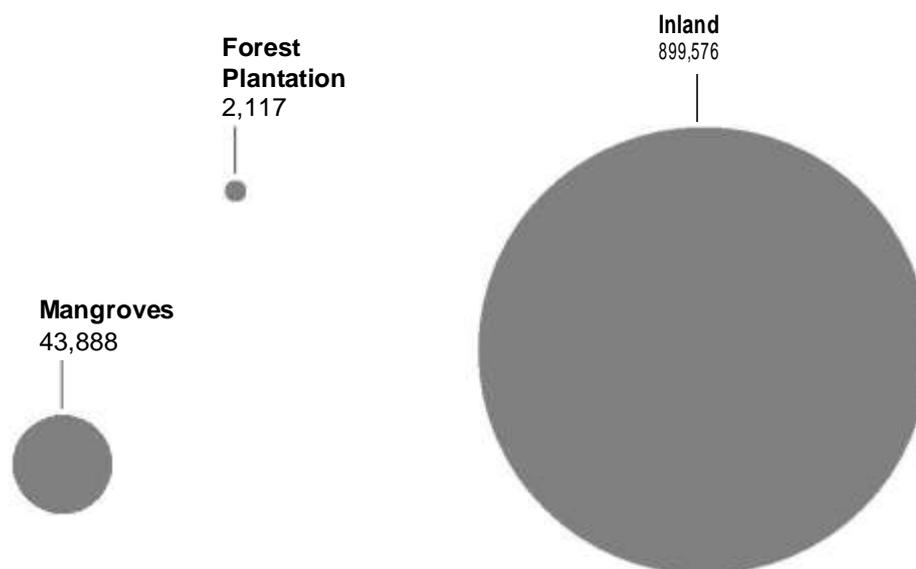


Figure 2: Status of the total Permanent Reserved (ha)

## BIODIVERSITY AND CONSERVATION

Forest biodiversity does not only consist of trees; but also includes the multitude of other plants, animals and micro-organisms that constitute the ‘forest ecosystem’. The high diversity of species; and their associated genetic diversity, is what make Perak’s forest so important for conservation. A series of Forest Biodiversity Expeditions have been undertaken by the Perak Forestry Department to assess and document the rich biological diversity of the forest. Expeditions have been made to selected forests, including the Bintang Hijau Forest Reserve; Pulau Pangkor Forest Reserve; and, the Royal Belum State Park.

### HIGH CONSERVATION VALUE FORESTS

HCVFs are defined as forests having especially high ecological or social values. In other words, HCVFs are areas which are more valuable in terms of biodiversity values, ecological values and importance for local people than in terms of their value for commercial timber extraction.

The Perak Forestry Department has identified a number of HCVF areas in the state. These include the *Shorea lumutensis* stands in the Segari Melintang and Sungai Pinang Forest Reserves, the *Johannesteijsmania perakensis* stands in the Kledang Saiong Forest Reserve; and, the Rafflesia species and Tesau salt licks in the Temenggor Forest Reserve. The prehistorical burial sites at Pulau Kelumpang Forest Reserve have also been declared HCVF.

## FOREST MANAGEMENT

Good forest management aims to generate income from the forest, whilst, at the same time, preserving the forest ecosystem; its biodiversity; and, the ecological functions it supports. As part of its effort to conserve forests and biodiversity, the State Government of Perak has gazetted 18,866 ha., of land as ecological corridors under the Primary Linkages to the Central Forest Spine (CFS) initiative. The newly gazetted area has been declared as the Amanjaya Forest Reserve, and the State Government has initiated restoration of forest in this area under the Amanjaya Tree Planting Programme. Current forest management practices in the State are guided by the implementation of the Selective Management System (SMS).

The SMS was introduced to allow for more flexible timber harvesting regimes, consistent with the need to safeguard the environment, and at the same time take advantage of the demands of the timber market. The implementation of SMS involves three stages of forest management, namely pre-harvesting, during harvesting and post-harvesting activities. Under the SMS, post-F inventory is also required to determine the best regime and appropriate silvicultural treatment after timber extraction.

Silvicultural treatments include post-F inventory and cutting of lianas (CL) and enrichment planting. These are done annually to achieve maximum productivity from the PRF. On average, for the past ten years, a total of 6,236 ha., of PRF have received silvicultural treatments; and, a total of 2,200 ha., of enrichment planting have been conducted. To ensure that the PRF is managed sustainably, Malaysia has adopted the “Malaysian Criteria and Indicators [MC&I (Natural Forest)] Standard” to assess management effectiveness within each Forest Management Unit (FMU), for the purpose of certifying good forest management practices. The FMU of Perak State has been certified.

#### AFTER FELLING FOREST INVENTORY (POST-F)

Post-felling inventory is an inventory conducted after the forest harvesting operation to determine the types of silvicultural treatments to be carried out in an area.

Inventories are carried out every two (2) to five (5) years after a compartment or sub-compartment has

**been harvested.**

Another forest management initiative in Perak is the “Central Forest Spine Project” which aims to create an ecological network (ecological linkages) between fragmented forest blocks separating Royal Belum Forest Reserve and Temengor Forest Reserve in Gerik.

### WEALTH GENERATION FROM FOREST

A total of 12,770 ha., of forest in Perak was licensed for harvesting in 2014. The approved “annual allowable coupe” (AAC) in PRF was 6,990 ha., and harvesting

activities in PRF did not exceed the AAC. Meanwhile, a total area of 3,153 ha., of state land forest was licensed and 2,975 ha., of alienated land was also licensed for logging. Total forest revenue collected from royalties on logs and other forest products, premiums and other sources was valued at RM70 Million (see *Table 2*). However, all taxable revenue from forestry in Perak is remitted to the Federal Government.

### NEW SOURCES OF WEALTH FROM THE FOREST

#### *Payment for Eco-System Services (PES)*

Realising the economic value of the forestry sector for the State, considerable effort has been taken to ensure sustainability. One of the initiatives undertaken by the Perak Forestry Department has been to develop

#### WHAT ARE PAYMENTS FOR ECOSYSTEM SERVICES?

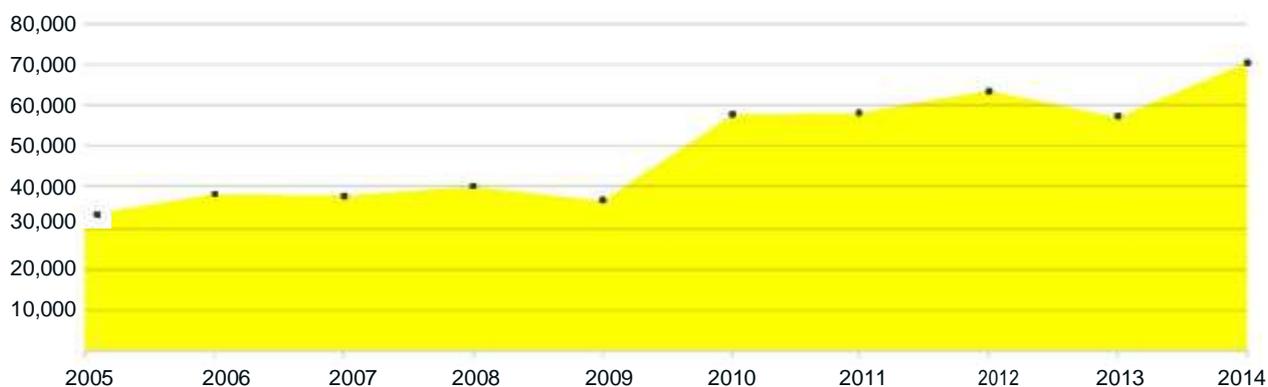
Payments for ecosystem services (PES) is the term used to describe a range of schemes through which the beneficiaries, or users, of ecosystem services, provide payment to the stewards, managers or providers of those services. The beneficiaries may be individuals, communities, businesses or public bodies.

a mechanism which collects Payments for Ecosystem Services (PES) for selected uses of the forest.

The Perak Forestry Department has undertaken a pioneering initiative to develop PES mechanisms with hydro-power generation from forested watersheds, through its collaboration with the Perak Hydro Renewable Energy Corporation (PHREC). It is estimated that the potential annual contribution to Perak from the PES uptake from the estimated 155MW generated, is between RM0.5 to 0.6 million annually from year 2017.

### FOREST RECREATION

As urban populations grow, and pressure to find areas and activities for recreation increase, forests are becoming popular places for recreation and public amenity. A total of 16 amenity or recreational forests have been established within the Perak PRF



YEAR	ROYALTY	PREMIUM	CESS	OTHER SOURCES	TOTAL
2005	12,741,470.00	8,428,601	8,008,614	3,981,387	33,160,072
2006	13,730,443.00	11,965,038	8,506,758	4,172,951	38,375,190
2007	14,277,751.00	13,137,343	7,758,000	2,585,980	37,759,074
2008	14,544,256.00	15,176,218	7,114,328	3,132,889	39,967,691
2009	15,631,142.00	10,823,505	6,093,813	4,248,895	36,797,355
2010	15,791,585.00	30,675,387	6,502,838	4,567,278	57,537,088
2011	27,065,454.00	18,368,285	7,445,803	5,401,605	58,281,147
2012	22,771,845.00	24,823,569	7,442,188	8,521,864	63,559,466
2013	22,633,330.00	22,398,706	6,633,403	5,382,089	57,047,529
2014	23,492,722.00	22,874,965	8,186,691	15,877,589	70,431,967

Table 2: Forest Revenue Collected 2005 – 2014 (RM)

Source: Perak Forestry Outlook

since 1979 (see *Table 3*). Amenity forests provide facilities for visitors, such as toilets, camping sites, resting huts, *surau*, open hall and forest trails.

The first amenity forests established in Perak in 1979 were at Kaki Bukit Larut, located in Bukit Larut FR; and, at Lata Iskandar in the Bukit Tapah FR. In 2004, the Perak Forestry Department established an eco-education centre in the Jebong FR at Kuala Sepetang in the Matang mangroves. The eco-education centre provides visitors with opportunities to learn about the diversity of the

mangrove forest and, in cooperation with local communities, to visit charcoal kilns, fishing villages and aquaculture farms locally.

The largest amenity forest in Perak is at Taman Rimba Kledang Saiong (Ulu Sah), established in 2010 with a total area of 2,188 ha., the area is located in the Kledang Saiong FR near Ipoh.

Numbers of visitors to Perak's amenity forests shows an increasing trend over the last 7 years. Total visitation numbers in 2008 were 101,338; and,

NAME OF AREA	ESTABLISHED (YEAR)	SIZE (HA)	LOCATION	TOWN / DISTRICT
Kaki Bukit Larut	1979	584	Bukit Larut FR	Taiping
Lata Iskandar	1979	891	Bukit Tapah FR	Tapah
Kuala Woh	1983	379	Bukit Tapah FR	Tapah
Ulu Kinta	1987	119	Bukit Kinta FR	Batu Gajah
Taman Eko-Rimba Lata Kinjang (Hutan Lipur Lata Kinjang)	1989	513	Bukit Tapah FR	Tapah
Ulu Kenas	1990	687	Bubu FR	Kuala Kangsar
Lata Kekabu	1990	308	Bintang Hijau FR	Grik
Papan	1992	218	Kledang Saiong FR	Batu Gajah
Pulau Pangkor	1992	136	Pangkor Utara FR	Pangkor
Pasir Panjang	1996	27	Segari Melintang FR	Sitiawan
Pulau Tali Kail	1997	263	Belum FR	Hulu Perak
Sungai Salu	1998	423	Bujang Melaka FR	Kampar
Sungai Nyior	1998	561	Bubu FR	Taiping
Pusat Eko Pelajaran Hutan Paya Larut Matang	2004	781	Jebong FR	Taiping
Ulu Licin	2006	473	Bubu FR	Kinta Manjung
Taman Rimba Kledang Saiong (Ulu Sah)	2010	2,188	Kledang Saiong FR	Ipoh

Table 3: List of Amenity Forests in the PRF in Perak, 2014

by 2014 this had increased significantly to 568,508 (see *Figure 3*). This trend shows a positive response from the general public towards the establishment of recreational areas and the outdoor activities associated with them.

## RECOMMENDED STRATEGIC ACTIONS

### 1. Forest Protection

The most critical action to be addressed by the Perak Forestry Department is to ensure that all existing Permanent Reserved Forest (PRF) is fully protected. It is also recommended that state land forests that are unsuitable for other development be gazetted as PRF.

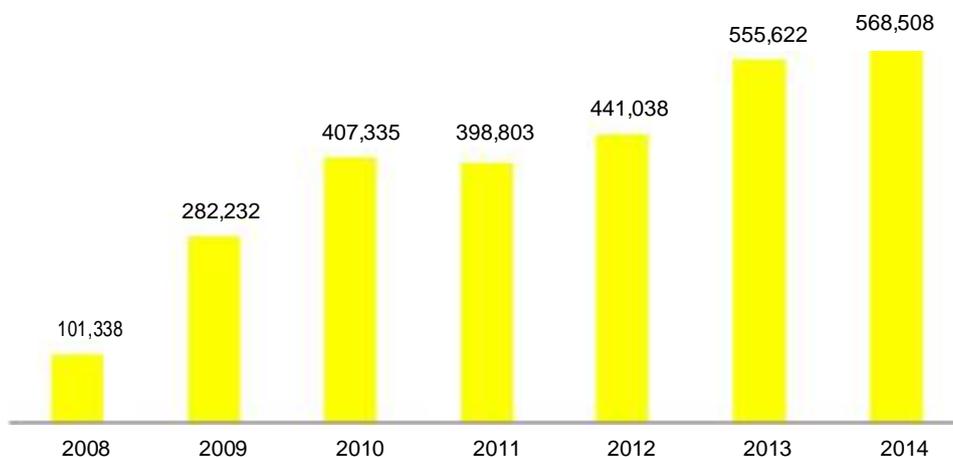


Figure 3: Number of Visitors to Amenity Forest and State Park Forest, 2008 – 2014

#### 2. *State Forest Conservation Fund*

Currently revenue from forestry within the State is channelled to the Federal Government. It is recommended that the Perak State Forestry Department explore options for the establishment of a “State Forest Conservation Fund” to broaden their mechanisms of funding.

This new arrangement can broaden the source of funds from public, private and international foundations. For example, private funds could be generated from industries; corporate contributions through corporate social responsibility schemes; philanthropic donations; and, also non-governmental organizations. Furthermore, international funding sources can come from bilateral aid, multilateral grants, and international financing mechanisms.

#### 3. *Expanding the implementations of PES*

Actions should also be taken to expand the implementation of PES to other forest areas in Perak; and to investigate potential for PES schemes for water supply; food supply; carbon sequestration and storage; and, production of medicinal plants.

#### 4. *Showcasing Matang Mangroves*

Perak should further support and promote the Matang Mangroves as a globally recognised site for wetland conservation and sustainable forestry management. The area should be promoted as a national centre for mangrove and fisheries research; mangrove ecosystem restoration and management; and, training, through the establishment of a Mangrove Research Centre. The Research Centre could cater as a one-stop centre for mangrove research in the country, as well as regionally and globally, and can provide opportunities for research; environmental

*Source of Data: All are from Department of Statistics Malaysia*

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#### IDR PERSPECTIVE

IDR Perspective is a quarterly publication by Institut Darul Ridzuan that provides analytical insights of socio-economic issues of Malaysia in general and with specific emphasis on Perak. Literary analyses from publicly available data cover the five main focus areas: economy; services; social and government; human capital and environment. It is aimed at keeping decision makers both in public and private sectors informed; as well as meeting the interest of scholars, laymen and the public.



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