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Wetlands set to boost ecotourism

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ONCE a sleepy hollow, Sepang today, is the site of the now-operational KL International Airport. But unknown to many, 15km north at Paya Indah, development of a different nature is taking place.

For located here is the Malaysian Wetland Sanctuary, Selangor.

Business Times recently met with the Malaysian Wetlands Foundation (MWF) for an update on the development, restoration and rehabilitation of the sanctuary.

MWF is the promoter, facilitator, caretaker and developer of Paya Indah and its activities, on behalf of the Malaysian Government.

The birth of Paya Indah took off last September, when Prime Minister Datuk Seri Dr Mahathir Mohamad endorsed plans of developing the sanctuary. The estimated cost of the project is RM70 million.

"In November, we obtained possession of the land and began earthworks, rehabilitation of ponds and lakes, carried out a topographical survey, studies on flood mitigation and collected data on the ecosystem," said chief executive officer Muralee Menon at Paya Indah recently.

The 3,200ha sanctuary in the Kuala Langat district is an ecosystem featuring peat forests and swamps and lakes as well, which have suffered as a result of human activities.

Prior to the onset of fires in April, which took their toll on the peat forest, the forest had already been ravaged by earlier fires or destroyed by man, said Prof Dr Ho Sinn-Chye, director of environmental education and research at the MWF.

Conservation of peat swamps is important. Due to their particular biological constitution, peat swamps sustain several plant and animal species which are not easily found in other ecosystems.

Peat is a brown, flaky, usually acidic material made of compressed remains of plants which have not decomposed. It is semi-liquid under a solid crust of undecayed woody litter and tree roots. It can be from one to 10m thick.

"Whatever is planted has to survive and hence the important issue of tolerance to fires as this increases the chances of survival," said Ho.

He added that the lake system at Paya Indah had its origins as mining pools and as a result remained as pockets of water without vegetation.

"The immediate task was to revegetate and thus far, 3,000 trees have been planted. We have selected many trees and not seedlings as the area needs instant shade," he said.

Several considerations have to be taken into account in the selection of trees such as shade, diversity and hardiness. Some examples of the trees planted are the casuarina, pulai, bintangor, tembusu and willow trees.

"Trees that are planted should also encourage birds to stop and rest and here fruit trees are important. Apart from this, the trees selected should also provide shade, be fast growing ... and reflect the Malaysian landscape," said Ho.

Besides tree planting, aquatic plants are also being grown and attention has been paid to the selection of these.

For example, in one area, 300 aquatic plants such as the species Phragmites karka ("tebu salah") and Typha angustifolia (cat-tail) were planted.

The cat-tail is a hardy and common aquatic plant that can grow up to 3m. It propagates quickly and the rhizomes are rich in starch and can be eaten

when food is scarce.

The "tebu salah" meanwhile can be found in moist and water-logged areas. It is a favourite of nesting or roosting birds.

Besides sourcing from the wild, young plants were also sourced from nurseries such as the Putrajaya nursery. (A nursery at Paya Indah is in the works).

Both the tebu salah and cat-tail act as filters or traps for sediments and pollutants.

Muralee added that less than 1 per cent of the sanctuary will be developed while the rest will be rehabilitated.

Development encompasses an exhibition centre, chalets, infomation huts as well as birdhides.

"Construction will begin in one month's time consisting of simple buildings with different construction materials which are not just cost-effective but also environment-friendly," he said.

The architecture of the buildings is also "green", one example being roofs which have gutters to collect rainwater, said Ho.

Green engineering is also practised in the construction of the internal road system, where a 100m experimental road was built using the ISS (ionic soil stabiliser).

The ISS alters earth material by allowing maximum compaction and prevents reabsorption of water. The compacted layer has a high density and high load-bearing capacity.

It is not much affected by extreme climatic conditions. In terms of expenditure, it is cheaper than gravel roads.

"The idea is to retain a rustic ambience. Furthermore, gravel is not conducive for horse-drawn carts and rains will cause friction to high buggies," said Muralee.

"Roads are also flanked by subterranean drainage pipes to ensure there is no loss of water," said Ho.

While the horse-drawn carts, buggies and chalets idea means there will be tourists, Muralee assures that only 15 per cent of the sanctuary will be exposed to human activity.

"It will be low-impact eco-tourism and we are working on a good park management system to ensure that all aspects of the park, such as security and maintenence will be taken care of," he said.

Ho added the sanctuary is large enough and able to cater to tourists. It is expected to be opened to the public by January 1999 but will be ready to receive Asia Pacific Economic Cooperation leaders in November.

Measures are also taken to ensure that human activity does not jeopardise the ecosystem and the rehabilitation work.

An adequate number of bins, pamphlets and signages are provided for the tourists to dispose their trash responsibly, said Muralee. There will also be controlled zones where the number of tourists will be restricted in certain areas.

"Take birdwatching for example, we do not want large groups ... between two and three people at an area is ideal," said Ho.

One other important issue is to have a coordinated look at the watershed development in and around the area, he added.

Paya Indah depends on water for its continues existence and thus the water issue is a crucial one.

"Cyberjaya and Paya Indah are closely linked hydrologically. As they share the same ecosystem, they should be managed together. Therefore, any management plan has got to take cognisance of the hydrological link," said Ho.

The Department of Irrigation and Drainage has agreed to look into this and meet with the authorities at Paya Indah, Putrajaya, Cyberjaya and

related agencies.

The wetland sanctuary does not only encompass plants and wildlife but raises the issue of the local community's participation.

"The people of Bukit Changgang and Dengkil are the first to benefit from the sanctuary. These are the nearest towns to the sanctuary and naturally visitors to Paya Indah will then go to these towns.

"The community can add value to Bukit Changgang by having a good handicraft or fruit store here," said Muralee.

The orang asli such as the Temuan for example, can serve as guides in the sanctuary as well as sell handicraft at the market square.

In the development and rehabilitation of Paya Indah, education plays an important role. To this end, the sanctuary will also house an education and research centre.

Ho stressed that to carry out education and environmental awareness programmes, there has to be hard science and research. There is a need for detailed studies in peat swamps in order to know what resources can be found there to better carry out rehabilitation work.

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