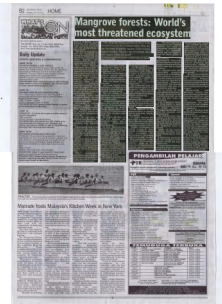


Headline	Mangrove forests: World's most threatened ecosystem	Language	English
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Mangrove forests: World's most threatened ecosystem

KUALA LUMPUR: Global warming and depleting water resources are not the only ones posing threat to life on earth.

The loss of wetlands not only has disrupted the ecological balance but also effectively removed the safety barriers that humankind have failed to appreciate all this while.

The Asian Wetland Symposium held in 2005 in India to assess the damage caused by the December 26, 2004 tsunami noted "certain wetlands played a role in reducing the tsunami impact, especially in locations close to the epicenter, including mangrove swamps that broke the impact of waves and absorbed some of the energy and this protected areas further inland."

Tragically, today the mangrove forests are the world's most threatened tropical ecosystems.

According to United Nation's Food and Agriculture Organisation (FAO), about 20 per cent of the world's mangrove forests have disappeared since 1980.

And the sad part is Malaysia is no exception!

"It is a case of money over everything else," lamented I.S.

Shanmugaraj, head of the environmental education division of the Malaysian Nature Society (MNS) in an interview with Bernama recently.

Born and bred in Kuala Selangor, he clearly voiced his grave concern over the state of the mangrove forests in the country despite the current efforts to replant them.

"The catastrophic tsunami has come and gone, but as always we never learn despite the calamity being a dreadful human tragedy.

"The mangrove forests, particularly those in the coastal areas are very important to us.

They are our first layer of defense against coastal erosion, against tsunami.

They are our strongholds. What will happen if they

are gone?

"You need roughly about 400 metres of mangroves of about 20 to 25 metres high to stop the tsunami waves.

The root system of the mangrove trees will break the impact of the waves and the undercurrent.

"Some of the mangroves have also evolved where they can, if you go to Redang or Langkawi or Kuala Sungai Sepang Besar, you can also find them surviving when there are more sand than mud.

But despite all these, we are still clearing our mangrove forests," said a clearly disappointed Shanmugaraj.

He said Malaysia had about 570,000 hectares of mangrove cover in year 2000 and currently the size has dwindled to about 70,000 hectares with large areas being cut and cleared in the name of development.

Peninsular Malaysia, he added has about 17 per cent of the country's total mangrove forests and large areas are concentrated in the west coast, particularly in Selangor and Perak.

Shanmugaraj speaks with such profound conviction because he grew up amongst

the mangrove forests.

His birthplace of Kuala Selangor, located about 60 kilometers north of Kuala Lumpur is famous for the Kuala Selangor Natural Park (KSNP), a significant conservation area for coastal and riverine mangroves.

The mangroves found in KSNP consist mainly of the Bruguiera species mixed with some Rhizophora namely Bakau Kurap, Bakau Minyak and Api-Api.

According to Shanmugaraj, the mangrove areas are a nursery for marine life and serves as a stop over point for migratory birds.

Lying adjacent to the mangrove forest is another crucial ecosystem, namely the mudflats.

"In Kuala Selangor the area right up from Sungai Besar, Sabak Bernam, there are huge mudflats, a natural breeding ground for cockles.

"Besides mudskippers or widely known as ikan belacak, mudflats are also a rich ecosystem for invertebrates including crabs and prawns," he said.

Shanmugaraj who is also a qualified environmental educator spoke on the importance of mangroves in trapping whatever being thrown upstream.

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"The main function of mangrove is not trapping rubbish but more of eliminating sediments and toxins," he explained, adding that the mangrove trees are hardy plants as well.

According to Shanmugaraj, Peninsular Malaysia has been losing its mangrove forest over the last twenty years due to illegal activities.

He explained other than sustainable mangrove logging done at the Matang Forest Reserve in Perak, most of the mangrove forests are being over exploited for wood-based industries, particularly for charcoal production and also for aquaculture activities.

As a result of the unscrupulous and excessive clearings, the mangrove belt is getting thin both on the west and east coast of Peninsular.

A lot of mangrove forests are being cleared to make way for prawn aqua culture in Perak, Selangor, Terengganu and Kedah even after the tsunami, said Shanmugaraj.

"By opening prawn aqua culture, you are destroying the mangroves because chemical used in the farms will make the soil acidic for the mangrove trees to survive.

"Some of the prawn breeding ventures were either abandoned or have failed.

In some areas, you hardly can see mangrove trees growing around that aqua culture area.

So these are the things we sometimes forget and only realise when the ecosystem has been destroyed," he said.

Even at KSNP's boundary, Shanmugaraj said a large tract of mangrove forest has been cleared to make way for prawn aqua culture to cater for the export market.

Shanmugaraj acknowledged the efforts taken by the Ministry of Natural Resources and Environment (MNRE) in replanting mangroves under the National Mangrove Replanting Programme after the tsunami.

The exercise covered the whole of Malaysia and even the Forest Research Institute of Malaysia (FRIM) has been enlisted to find new ways to plant the mangrove trees in places that are hard to grow.

Shanmugaraj told Bernama, several non-governmental organisations including MNS are also actively involved in rolling out educational programmes for local communities and children, stressing on the importance of mangroves.

"We get funding from MNRE through the Forestry Department.

It is a yearly funding to educate people on the importance of mangroves and MNS currently has two centers for these ongoing educational programmes," he said, adding that the two centers, one at KSNP and at the other MNS Eco Care Project, in Kerteh.

As for MNS Eco Care Project in Kerteh, the project involves three villages, namely Kampung Gelugor, Kampung Telaga Papan and Kampung Tengah as they are located in the mangrove belt along Sungai Kerteh.

"The mangrove forests, particularly those in the coastal areas are very important to us. They are our first layer of defense against coastal erosion, against tsunami. They are our strongholds. What will happen if they are gone?"

I.S. Shanmugaraj, head of the environmental education division of the Malaysian Nature Society (MNS)