



About 24 per cent, or 1,000sq km, of mangroves in Malaysia are exposed without any legal protection. FILE PIC

CONSERVATION OF MANGROVE ECOSYSTEMS

BAN CONVERSION OF MANGROVES



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MANGROVES matter to all of us dwellers of planet Earth, and they matter most to coastal communities of the tropics.

The occurrence of mangroves as the signature habitat and the "trademark" ecosystem of the tropics is with major purposes.

For one, they protect tropical and subtropical coastlines from the impacts of coastal and oceanic hazards, including tropical storms or cyclones — another environmental characteristic synonymous to the tropics. More than 1.3 billion people in developing countries benefit from this.

Mangroves are the breeding and spawning grounds for fish

and marine fauna, which are the key protein sources for humans.

Fish and marine catches from the tropics do not only feed tropical communities, but the footprint extends to the wider global market.

The trend of marine catch outside tropical waters has declined in recent decades causing a tremendous increase in the demand and pressure for tropical fish stocks. This is apparent with the demand from the ever increasing human population and the surge in the international fishing efforts and application of fishing technologies within the tropics.

More than 95 per cent of the world's mangroves are in the tropics, and 40 per cent lie within Southeast Asia, which is acknowledged as the global hotspot of mangrove species diversity.

At the same time, Southeast Asia is also recognised as the global hotspot for mangrove loss.

There are adequate data and information about the dire condition of the global mangroves. There are also abundant recommendations globally, particularly from scientists and intergovernmental organisations to halt fur-

ther destruction of mangroves.

These were, however, not implemented in total. Although the rate of mangrove habitat loss has declined quite substantially from the previous century, it is still ongoing.

More is needed to convince governments to protect mangroves and allow these dynamic ecosystems to remain intact in the face of roaring human-induced climate change.

Speaking of climate change, mangroves have been clearly identified to be the most prolific ecosystems to assist the planet in lowering the amount of carbon in the atmosphere.

Despite its small area coverage of the planet's total land mass, mangrove soil held 6.4 billion metric tonnes of carbon in an estimate made for the year 2000 by Dr Jonathan Sanderman and his team of scientists, published in the journal *Environmental Research Letters* in 2018.

But, the same analysis indicated that 30 million to 122 million metric tonnes of soil carbon was lost in the period of 2000-2015 due to mangrove deforestation, out of which 75 per cent were contributed by Indonesia,

Malaysia and Myanmar.

We must rectify this if we want to contribute positively as a global player in the concerted effort to fight climate change.

Recently, the Indonesian maritime affairs and fisheries minister pledged that there will be no more deforestation and conversion of mangroves into aquaculture ponds, instead they will go on and rehabilitate damaged mangroves and apply new technologies to boost the fisheries industry.

This is an action that should be emulated by all countries in Southeast Asia and the tropics.

Prior to that, Sri Lanka in 2015, followed by the Cayman Islands earlier this year, had called a tall order of protecting and gazetting all of their remaining mangroves. Meanwhile, other countries have started tabling laws to strengthen mangrove protection and enforced policies like payments for ecosystem services as a means to protect and conserve all mangrove and forested ecosystems.

Malaysia is in a very good situation to act significantly by enforcing full protection of its mangroves as an estimated 76 per cent of the current total area is already

protected as permanent forest reserves. That leaves another 24 per cent, about 1,000sq km exposed without any legal protection.

Conversion of mangroves to degazettement of mangrove forest reserves should be banned indefinitely in Malaysia to allow these precious habitats of just about 6,000sq km in size to flourish and support an extremely large amount of organisms, as well as to provide multitude ecosystem services for the natural environment and to local and global communities.

This is timely as Malaysia and the whole world are celebrating the 5th International Day for the Conservation of Mangrove Ecosystems tomorrow. It is hoped that this would be considered by all state governments in ensuring and promoting environmental, social and economic sustainability for the current and many generations to come.

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