

SINGAPORE

Land conversion threatens Southeast Asia's mangrove forests: NUS study

Continued expansion for rice farming in Myanmar and conversion of mangroves into oil palm plantations in Malaysia and Indonesia could accelerate deforestation, according to researchers.

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PHOTOS



A boy walks past Mangrove trees at Honda Bay in Puerto Princesa, Palawan island, south of Manila, Philippines. (AFP/Ted Aljibe)

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SINGAPORE: The conversion of mangrove forests for other uses poses a big threat to their existence here in Southeast Asia, according to a study by National University of Singapore (NUS) researchers.

In a press release on Tuesday (Jan 5), NUS said that while the rate of deforestation was lower than previously thought, 2 per cent, or more than 100,000 hectares, of mangroves in the region were deforested from 2000 to 2012.

The study was authored by Assistant Professor Daniel Friess, from the Department of Geography at NUS, and Dr Daniel Richards, who was formerly from the same department. Dr Richards is now with the Department of Animal and Plant Sciences at The University of Sheffield.

According to the study, Southeast Asia has the greatest diversity of mangrove species in the world, which store substantially higher densities of carbon as compared to most other ecosystems globally. Thus, the mangrove forests play an "important role" in mitigating carbon dioxide emissions and climate change, the press release said.

"UNDER-RECOGNISED THREATS"

Despite the lower than expected rate of deforestation, the researchers found that continued agricultural expansion for rice in Myanmar and conversion of mangroves into oil palm plantations in Malaysia and Indonesia were "under-recognised threats" and may threaten the existence of the mangrove ecosystems in the region.

In Myanmar, rice expansion has accounted for more than a fifth of the total mangrove change in Southeast Asia over the study period, and these trends are likely to continue with the country's ongoing economic transformation, the press release said.

As for the development of oil palm plantations, this is already a "major driver" of terrestrial forest and peat swamp deforestation in Malaysia and Indonesia, and contributes to regional issues such as haze, the researchers said. With palm oil production in Indonesia expected to increase steadily over the next few years, especially into frontier areas such as Papua, this is likely to pose "severe threats" to the mangrove forests there, they added.

"Our study provides detailed information for evidence-based conservation of mangrove forests. Future research and policy interventions, at the national and subnational level, must consider the diversity of drivers of mangrove deforestation," said Dr Richards.

The findings were published in the journal, Proceedings of the National Academy of Sciences of the United States of America, in December last year.

- CNA/kk