

## Indonesia, Singapore to work on blue carbon research project

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Indonesia and Singapore are preparing to work together on a research project on carbon captured and stored by coastal and marine ecosystems.

Findings from the blue carbon project could help Indonesia estimate how much carbon dioxide it can capture and meet its emission reduction targets.

The pilot project will be carried out on Setokok Island in Riau province as soon as the end of this year or early next year, said Dr Kus Prisetiahadi, assistant to the deputy for climate change and disaster management at the Coordinating Ministry for Maritime Affairs and Investment.

Setokok Island, one of the locations of a government-run mangrove rehabilitation programme, was chosen because of its potential blue carbon, the size of its mangrove forests and the variety of its mangroves, Dr Kus said.

"Indonesia and Singapore are designing a concept note that will serve as guidelines for the research," he told The Straits Times.

The project follows a bilateral agreement signed in March and covers collaborations on sustainability and climate change.

Over the years, Indonesia has lost a vast span of mangroves – which can store around four times more carbon dioxide than trees – primarily due to abrasion and land use changes. Its mangrove ecosystems total 3.36 million hectares, and potential areas to rehabilitate come to more than 756,000ha.

Riau province is among nine of 34 provinces prioritised by the Indonesian Peatland and Mangrove Restoration Agency for its mangrove rehabilitation programme.

Indonesia has a potentially huge

amount of blue carbon, especially from mangrove and seagrass, that may reach 3.57 billion tonnes of carbon dioxide equivalent, or 17 per cent of the world's carbon, but it is still largely untapped.

Dr Kus said research and technology would be key in maximising the utilisation of the sizeable carbon potential to support economic growth, enhance coastal resilience and mitigate the impact of climate change. "It is expected that through this research, Indonesia can calculate its potential carbon more accurately by way of advanced technology at the lowest costs possible," he said.

A mangrove rehabilitation programme, that may run together with the research on the island, is also expected to drive local economic growth and provide coastal protection, he added.

The project will involve experts from both countries, including those from Indonesia's National Research and Innovation Agency, Bogor Agricultural University and the National University of Singapore (NUS).

Professor Koh Lian Pin, director of NUS Centre for Nature-based Climate Solutions, told ST the university has been exploring opportunities for research collaboration on nature-based solutions with its counterparts in South-east Asia.

"For example, there are opportunities to leverage technology to improve our estimates of the carbon stocks and sequestration rates of mangrove forests and other coastal ecosystems," he said. "This research could help unlock the potential of nature-based solutions for climate change mitigation."

Dr Kus said the research will also pave the way towards a carbon sharing scheme between Indonesia and Singapore. But there are no talks so far pertaining to carbon offset as part of the partnership.

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