

Research may pave way for urban mangroves to be used to fight climate change

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Research on the use of planted mangroves to fight climate change may spur the development of more urban wetlands in Singapore.

Data is now being collected from mangrove habitats at the Gardens by the Bay's Kingfisher Wetlands, a 1.5ha man-made garden opened last November.

Mr Rodricks Wong, a senior assistant director in Gardens by the Bay's sustainability office, said if the mangrove habitats capture carbon well, there is potential for mangrove wetlands to be used as a nature-based solution in other urban areas.

The National University of Singapore's (NUS) Centre for Nature-based Climate Solutions and environmental consultants DHI Water and Environment are working with Gardens by the Bay to conduct the study.

The team is looking at "blue carbon", which refers to carbon which is captured by coastal and marine ecosystems.

Findings from the study will be shared at a public lecture in the first quarter of next year, said Mr Wong.

Conservation expert Koh Lian Pin said nature-based solutions involve leveraging nature to remove carbon dioxide – a heat-trapping gas – from the atmosphere.

This includes reducing emissions by avoiding deforestation or removing emissions through reforestation, said Professor Koh, who is director of the NUS centre.

Ms Crystle Wee, associate environmental consultant at DHI, said: "About 50 to 100 times more carbon is captured annually by sea grass and mangroves compared to tropical forests."

Prof Koh and Ms Wee made the comments at a public lecture at Gardens by the Bay.

The lecture is part of a new Wonderful Wetlands programme launched yesterday.

The series will give members of the public opportunities to get involved in research efforts.



National Development Minister Desmond Lee (in red) planting a mangrove tree with Temasek's managing director for sustainable solutions Frederick Teo (far left) at Gardens by the Bay to kick off the Gardens' Wonderful Wetlands programme yesterday. ST PHOTO: EUGENE GOH

During monthly sessions from June to December, 30 volunteers will learn about scientific research from experts, and help by collecting data on mangrove health. The data will aid in studies on the use of urban wetlands – such as Kingfisher Wetlands – as potential nature-based solutions to fight global warming.

At the launch, National Develop-

ment Minister Desmond Lee said that the public can sign up to be citizen scientists, and help with mangrove monitoring activities at the Kingfisher Wetlands.

Yesterday, he also witnessed the signing of two memorandums of understanding between Gardens by the Bay and two educational institutes. Under a five-year partnership with the Institute of Technical

Education, its students will be involved in horticultural maintenance works.

Gardens by the Bay will also offer six book prizes annually to students studying landscaping.

Meanwhile, students from Republic Polytechnic will be involved in mangrove monitoring at the wetlands, under a two-year partnership with Gardens by the Bay.

The two organisations will also develop marketing platforms that promote sustainability among young people.

Visit www.gardensbythebay.com/wonderfulwetlands for more information on Wonderful Wetlands, which is sponsored by Temasek and the SG Eco Fund.

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