MONDAY, JUNE 23, 2014 THE STRAITS TIMES

S'pore measuring its carbon footprint

5-year project to study greenhouse gas levels, greenery's mitigating effect

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SINGAPORE has started an ambitious five-year project to measure its own carbon footprint, as well as the mitigating effect of the island's greenery.

The authorities want to develop a monitoring system that tracks how much trees, soil and possibly even the grass help to reduce greenhouse gases.

An accurate inventory is needed since international groups, using different calculating techniques, have come up with widely fluctuating emissions figures.

To make sure the system passes muster, the National Parks Board has roped in the National Institute of Education (NIE) and the Austrian Natural Resources Management and International Cooperation Agency (Anrica). Anrica, which comprises several Austrian government agencies and private firms, focuses on climate change and rural redevelopment issues.

The findings will be submitted regularly to the United Nations Framework Convention on Climate Change, as part of Singapore's obligations as a party to the convention.

The project started last November and will be completed in 2018. It will span five phases, each lasting about one year.

Satellite images will be used to classify Singapore's vegetation into different categories. Sample land plots will be chosen, and researchers are expected to be in the field by the end of this year to collect data, such as trunk diameters, from vegetation.

Soil samples will also be taken as the earth also absorbs greenhouse gases. Ground and satellite data will be plugged into established equations to calculate how much of the gases are absorbed by the various plant species here.

"The report will be an attempt to estimate, with the highest possible degree of accuracy, Singapore's carbon inventory," NIE lecturer and Nature Society (Singapore) president Shawn Lum said.

Carbon accounting experts said the data could help Singapore take better care of the environment. If the research reveals that a certain plant species absorbs more carbon dioxide, for instance, more could be planted.

A 2010 report by environment group World Wide Fund for Nature ranked Singapore's carbon footprint per person as the highest in the Asia-Pacific, based on all imports here.

The Government disagreed with how this was measured, and said it uses the UN method, which attributes such emissions to the country producing the goods.

Singapore contributes less than 0.2 per cent of global emissions, it added. The Government has pledged to cut emissions by between 7 per cent and 11 per cent below 2020 estimates of 77.2 million tonnes per year.

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