

Three-year project to quantify nature benefits launched

An ambitious project to quantify all the benefits provided by Singapore's natural environment was launched yesterday, aiming to provide a framework for developers to assess the trade-offs between development and conservation.

The project will determine the economic, social and environmental benefits of the country's forests, parks, waterways and marine habitats. The effort to study the "natural capital" will take three years.

"In spite of the national effort towards greening the city state, we still need to know more about how to incorporate nature into holistic planning at a national scale," said a spokesman for the Singapore-ETH Centre, one of the project's leaders.

For example, trees can lower urban temperatures through providing shade and transpiration – when water evaporates from leaves, stems and flowers. While the effect of trees on temperature can be measured, other advantages they bring may not be as well known. Trees also help to slow storm-water run-off and help soil to absorb more rainwater, which

reduces the strain on the drainage network.

The National University of Singapore is the other project leader, and the two will form a team of 30 researchers, who will create a framework to define Singapore's most important ecosystems, determine their benefits and agree on tools to measure them.

They will then assess the current state of the land, coastal and marine habitats, quantifying their economic, societal and environmental benefits.

With this information, the team will programme a tool for planners and developers that can both visualise data on the benefits of natural capital and simulate the impact of various scenarios on Singapore's natural capital.

Singapore-ETH Centre principal investigator, Dr Dan Richards, said: "This will equip planners and developers to make better-informed decisions when faced with development-environment trade-offs, and also identify opportunities for the stronger incorporation of natural capital into our urban landscape."

- JOSE HONG



The project will lead to a framework to define Singapore's most important ecosystems. TNP FILE PHOTO