

New \$60m marine science institute to help S'pore, region deal with ocean challenges

Its objectives include developing tools for sustaining marine ecosystems

Ang Qing
Correspondent

A landmark national research initiative on marine science was officially launched on Sept 22, with a remit to help Singapore and the broader South-east Asian region deal with challenges ranging from coastal development to climate change.

The \$60 million National Institute for Marine and Ocean Sciences, dubbed NIMOS, was established by the National Parks Board with the National University of Singapore (NUS).

This builds on two earlier marine research programmes, which were funded to the tune of \$25 million each. The five-year programmes focused more on applying science to domestic challenges.

The launch event for NIMOS at the NUS University Hall Auditorium was attended by Minister for National Development Chee Hong Tat, as well as some 150 other guests, including researchers, university representatives and government officials.

NIMOS director Huang Danwei, a coral biologist, said the launch of the new institute comes as several changes are expected in Singapore's sea spaces. Regionally, too, the waters of South-east Asia are under stress from coastal development and climate change.

Huang pointed to the recently announced plans for a new western island in Singapore as an example of how partnerships between scientists and government agencies will be paramount for securing a sustainable sea space for the country.

Prime Minister Lawrence Wong had in August announced plans to merge several southern islands to reclaim a new western island for industry, energy and defence needs.

At the same time, Singapore will soon welcome its second marine park at the nearby Lazarus-South Kusu reef. This park was first announced in May 2024, but has not been officially gazetted.

Said Huang: "As a small, highly urbanised island nation at the centre of one of the world's most intensively used marine regions, Singapore can serve as a living laboratory for the future of tropical coastal



Above: Minister for National Development Chee Hong Tat (second from left) viewing marine science projects presented at the launch of the National Institute for Marine and Ocean Sciences (NIMOS) on Sept 22.

Left: Researchers and conservationists at the NUS University Hall Auditorium for the launch of NIMOS. Its permanent home on the NUS campus is expected to be ready by 2028. PHOTOS: LIANHE ZAOBAO

environments.

"Our goal is therefore larger than understanding Singapore's seas. It is to develop the science and tools for sustaining marine ecosystems alongside economic development – solutions that Singapore can demonstrate locally and contribute to a rapidly changing South-east Asia."

He noted that coastal cities in South-east Asia are expanding and becoming more urbanised, taking the path that Singapore took years earlier.

Huang added that the Republic has played a prominent role in the High Seas Treaty, a hard-fought global deal that aims to protect the marine life of two-thirds of the ocean.

Speaking to the media at the launch event, Huang said he hopes

NIMOS can help decision-makers weigh the value and services that ecosystems provide, especially for the upcoming Long Island and western island developments.

Long Island will be reclaimed off the East Coast shoreline to create new land while serving as a buffer to protect the country from rising sea levels.

NUS said in a statement that NIMOS will start by operating as a virtual institute while its longer-term facilities are being developed.

NIMOS' permanent home on the NUS campus is expected to be ready by 2028.

Outlining the objectives of NIMOS for the years ahead, Huang said it will develop tools to enable marine ecosystems to withstand multiple stressors while continuing

to provide the essential services on which Singapore relies, among other things. Ecosystems provide natural benefits like improving water quality and supporting populations of marine life.

The objectives include understanding which organisms and processes are critical for maintaining ecosystem functions, and whether ecosystems are performing the functions society depends on.

Over the next decade, NUS and NIMOS will also offer 22 post-graduate research scholarships supporting the growth of local expertise and projects.

Addressing guests, Chee said NIMOS will help Singapore "make good decisions supported by science".

On the western island, he noted that it is important for the Republic to plan ahead for its future strategic national needs even as it recognises that the area is rich in biodiversity.

Said Chee: "I think members of the marine research and conservation community would agree with me that this is something that we need to do our best, to preserve as much as possible to minimise the impact as far as we can."

He added that NIMOS' work can deepen Singapore's understanding of the marine environment, assess the choices and trade-offs, and help make informed decisions about how its limited marine space is used.

NIMOS' approach will help the Republic better understand the cumulative effects of climate

change, human activity and other pressures on Singapore's marine environment over time, he added. He pointed out that the waters around Singapore have always been important to its development as a nation.

"How we understand, protect and manage them will become even more important in the decades ahead as the demands on our limited marine space continue to grow," said Chee.

"Our investments in marine science today are therefore investments in Singapore's future. The better we understand our marine environment, the better equipped we will be to make sound decisions."

aqing@sph.com.sg