

New \$60m programme to help steer marine policy, conservation

Establishment of research centre will enable coordinated, science-based approach, say scientists

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Marine science research that informs policy decisions will get a boost with a new \$60 million programme at the research centre of excellence to be established by the National Parks Board (NParks) and the National University of Singapore (NUS).

Scientists from local institutions told *The Straits Times* in April that the centre will enable a coordinated, science-based approach to manage Singapore's marine and coastal resources amid escalating environmental pressures from development, climate change and biodiversity loss.

Singapore's sea level is projected to rise by up to 1.15m by 2100, prompting efforts to shore up coastal defences through land reclamation and other means.

The research centre, announced during the 2026 Budget debate, will be hosted by NUS. More details will be released later in 2026.

NParks' National Biodiversity

Centre group director Karenne Tun said the centre will bring together universities, industry players, government agencies and policy institutions.

Dr Tun, a coral reef biologist, said: "It will provide a unified strategic vision across key stakeholders, including existing marine science research institutes, to drive marine science research.

"This includes encouraging the formation of cross-functional and multidisciplinary teams that leverage the strengths of different institutions."

Taking guidance from a 2024 report on Singapore's marine science and oceanography research landscape, the centre intends to develop a comprehensive understanding of biodiversity to inform conservation, management and policy, added Dr Tun.

Beyond Singapore's shores, the centre is set to have an increased focus on regional collaboration with overseas research institutes, to facilitate comparative assessments of marine health across South-east Asia.

The \$60 million committed to its research programme, supported by the Research, Innovation and Enterprise 2030 plan, is more than double the funds given to earlier marine science research programmes, which were allocated \$25 million each.

NUS' St John's Island National Marine Laboratory facility director Jani Tanzil said she hopes the new centre of excellence will have more longevity than the previous five-year programmes.

"I believe we have now built critical mass in Singapore for world-class marine science expertise and capabilities, but to really see that return of investment there must also be a good, continued platform for growth," she added.

The centre comes at a time when national plans are demanding more of Singapore's limited marine and coastal assets, noted Dr Tanzil, who co-authored the 2024 report that had recommended a nationally coordinated research programme to inform the increasing uses of the Republic's sea spaces.

This includes the upcoming reclamation for the Greater Southern Waterfront and Long Island, as well as the Singapore Aquaculture Plan to overhaul Singapore's flagging seafood farming industry.

Said Dr Tanzil: "To balance potentially conflicting sea space use, cater to evolving social needs and capitalise on any emerging opportunities in the blue economy, we will need proactive planning and integrated management that is guided by the best available science and data relevant to Singapore's context."

Professor Koh Lian Pin, vice-president for sustainability and resilience at NUS, who led the 2024 report, hailed the research programme as a "significant commitment by the Singapore Government".

The centre will deliver solutions to support economic productivity, ecological resilience and climate adaptation in the marine and coastal realms, he added.

He said St John's Island National Marine Laboratory will continue serving as national infrastructure for marine-related research activities by research institutes, universities and industry in Singapore,

including the new centre.

Economist Seck Tan, who also contributed to the 2024 report, said national coordination will be key as marine science research calls for solutions that balance economic productivity and ecological resilience.

A unified strategy ensures that marine and coastal resources continue to support a sustainable blue economy without overexploitation or degradation, added the Singapore Institute of Technology associate professor in the business, communication and design cluster.

Associate Professor Rebecca Case from Nanyang Technological University's School of Biological Sciences said she hopes that the centre of excellence will encompass the important role that microbes play in the ecosystem.

"While they are unseen, they perform many ecosystem services, degrading pollutants such as petroleum, creating the air we breathe and interacting with plants and animals to make them healthy and resilient," said Prof Case.

"They can also cause disease, which is important in both our natural ecosystems and industries such as aquaculture."

Marine sciences are central to Singapore, which is surrounded by the ocean, with shipping as one of its major industries, she noted.

"We have the highest diversity per area in the world; we have monsoons rather than seasons, and our equatorial location uniquely places us to understand how our marine ecosystems continue to contribute to our economy.

"What is their value, both to our quality of life and economy? And how do we find solutions and innovation from nature?"

To sustain marine science research in Singapore, the centre will also develop a pipeline of local talent that can build capabilities across academia, industry and government.

Said Dr Tun: "This talent pool will then be able to be tapped for technical assessments by agencies and the industry, and in guiding the formulation of science and evidence-based policy and management strategies."

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