



NEWS RELEASE

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NTU Singapore launches new interdisciplinary research centre to tackle health risks of climate change

To address the growing health threats posed by climate change, **Nanyang Technological University, Singapore (NTU Singapore)** is launching a new interdisciplinary research centre focused on climate change and environmental health in the tropics.

The **Centre for Climate Change and Environmental Health (CCEH)** will focus on the health impact of climate change under three key pillars: air quality, extreme heat, and water supply and quality — issues that are becoming increasingly urgent in Southeast Asia due to rising global temperatures and environmental changes.

CCEH, a university-level research centre, brings together expertise from across NTU's research ecosystem, including the Lee Kong Chian School of Medicine (LKCMedicine), the Asian School of the Environment (ASE), Earth Observatory of Singapore (EOS), the Singapore Centre for Environmental Life Sciences Engineering (SCELSE), and the Nanyang Environment & Water Research Institute (NEWRI). It will also collaborate with both local and international partners to develop evidence-based policies and real-world solutions.

The centre was officially launched today by **Dr Amy Khor, Senior Minister of State for Sustainability and the Environment**.

NTU Vice President (Research), Distinguished University Professor Ernst Kuipers, said: "Climate change forms a major threat to human health, including in tropical regions like Southeast Asia. NTU recognises the urgent need for solutions tailored to our environment. The new Centre for Climate Change and Environmental Health will bring together leading experts across disciplines to study and tackle the complex health challenges driven by climate change. Through cutting-edge research, innovation and regional partnerships, we aim to safeguard communities, influence policy and train the next generation of researchers to build a healthier, more resilient future."

Addressing gaps in climate health research in Southeast Asia

Climate change is having an increasing impact on public health. From deadly heatwaves to air pollution, flooding and poor water sanitation, populations are facing serious and growing health risks.

To better understand and address these challenges, CCEH will employ advanced tools including artificial intelligence, environmental sensors, remote sensing and modelling, to study how climate change exacerbates respiratory, cardiovascular and mental health conditions, especially among vulnerable communities.

Currently, most climate-health research is conducted by Western countries with temperate climates. There is a significant lack of research focused on tropical regions like Southeast Asia, which face unique issues such as high humidity, monsoons and transboundary haze pollution.

CCEH seeks to fill this gap by focusing its research specifically on the tropics, ensuring relevance and impact for the region. It will also work closely with regional experts to compare findings and develop shared solutions.

Associate Professor Steve Yim, Director of CCEH, said: “Southeast Asia is one of the regions most exposed to climate-related health risks, yet remains underrepresented in global research.”

“The Centre for Climate Change and Environmental Health will help close that gap by bringing regional insight and solutions to the global conversation, focusing on how air pollution, extreme heat and water issues – matters that often compound each other - impact health in tropical regions. By bringing together experts across fields and partnering with regional centres, we will develop practical solutions to help governments, hospitals, and communities respond more effectively. Through collaboration, innovation and real-world impact, we aim to make a positive impact in our societies,” added Assoc Prof Yim, who is also affiliated with ASE, LKCMedicine, and EOS.

NTU Senior Vice-President (Health and Life Sciences), Distinguished University Professor Joseph Sung, said: “Climate change-induced health issues such as heat-related illnesses and increased risk of vector-borne diseases are a growing concern in Singapore. It is a 21st century challenge that needs to be urgently mitigated.”

“By leveraging a multidisciplinary team of experts in medicine, climatology, environmental science, public health, epidemiology, microbiology, and technology development as well as inputs from its regional partners, the Centre for Climate Change and Environmental Health is well-positioned to investigate the intricate relationship between climate change and health and develop interventions and

policies to safeguard Singapore's public health," added Prof Sung, who is also **Dean of LKC Medicine**, one of the schools involved in research at the centre.

Regional consortium and capacity building

One of CCEH's first initiatives is to establish a regional consortium, bringing together universities and health institutes from Indonesia, India, Thailand, Taiwan and the United Kingdom. The consortium will facilitate the sharing of data, research findings, and best practices.

Other projects include the use of AI and environmental sensors to monitor, predict, and project trends in pollution, heat and water quality. These technologies can be used to forecast potential health emergencies during heatwaves or pollution surges. The centre will also explore emerging environmental risks, such as microplastics and their implications for healthcare sustainability and health economics.

To ensure its research has meaningful impact, CCEH will publish its findings in high-impact scientific journals to support informed policymaking.

Speaking in a congratulatory video at CCEH's launch, **World Health Organisation (WHO) Director, Department of Environment, Climate Change and Health, Dr Maria Neira** said, "Never more than now we need the expertise, the scientific capacity, the scientists that will be assessing the situation, responding and proposing interventions that will be good for accelerating the three transitions that are so much needed in our society today – the transition to clean sources of energy, the transition to more sustainable, healthy urban environment and the transition to more sustainable food system. For that, the opening of the centre is so important."

By establishing the region's first interdisciplinary climate-health research centre focused on the tropics, CCEH is poised to become a leader in training the next generation of climate-health researchers.

This initiative aligns with NTU's broader mission to address some of humanity's greatest challenges, including climate change and sustainability.

Over the next five years, a group of climate and health researchers, along with PhD students, are expected to be trained.

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About Nanyang Technological University, Singapore

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 35,000 undergraduate and postgraduate students in the Business, Computing & Data Science, Engineering, Humanities, Arts, & Social Sciences, Medicine, Science, and Graduate colleges.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies and Singapore Centre for Environmental Life Sciences Engineering – and various leading research centres such as the Earth Observatory of Singapore, Nanyang Environment & Water Research Institute and Energy Research Institute @ NTU (ERI@N).

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.

Ranked amongst the world's top universities, the University's main campus is also frequently listed among the world's most beautiful. Known for its sustainability, NTU has achieved 100% Green Mark Platinum certification for all its eligible building projects. Apart from its main campus, NTU also has a medical campus in Novena, Singapore's healthcare district.

For more information, visit www.ntu.edu.sg