

The 2025 Asian Climate-SDG Technology Innovation HackathOn (ACTION) concluded successfully, Showcasing Youth-Led Climate-Health Solutions at COP30

Climate-related health risks rank among the most pressing and complex challenges of our era. The inaugural Asian Climate-SDG Technology Innovation HackathOn for Next-generation (ACTION): Safeguarding Human Health in the Climate Crisis has successfully concluded. Jointly organized by Tsinghua University, The University of Hong Kong, and the National University of Singapore, the initiative mobilized young talents across Asia to develop innovative solutions at the nexus of climate change and public health. It received strong support from the World Meteorological Organization (WMO), the World Health Organization (WHO), the Asian Universities Alliance (AUA), and the International Competency Development Committee.

Launched in May 2025, the HackathOn attracted over 40 high-quality proposals. Through a rigorous preliminary review, 12 teams were shortlisted for the semi-finals. In early September, each team was paired with a dedicated mentor to refine their projects. Following this intensive mentorship, the teams presented their solutions in an online session on September 22nd, evaluated by a distinguished panel of experts from international organizations, industry, and academia based on criteria including technical innovation, health impact, feasibility, scalability, and

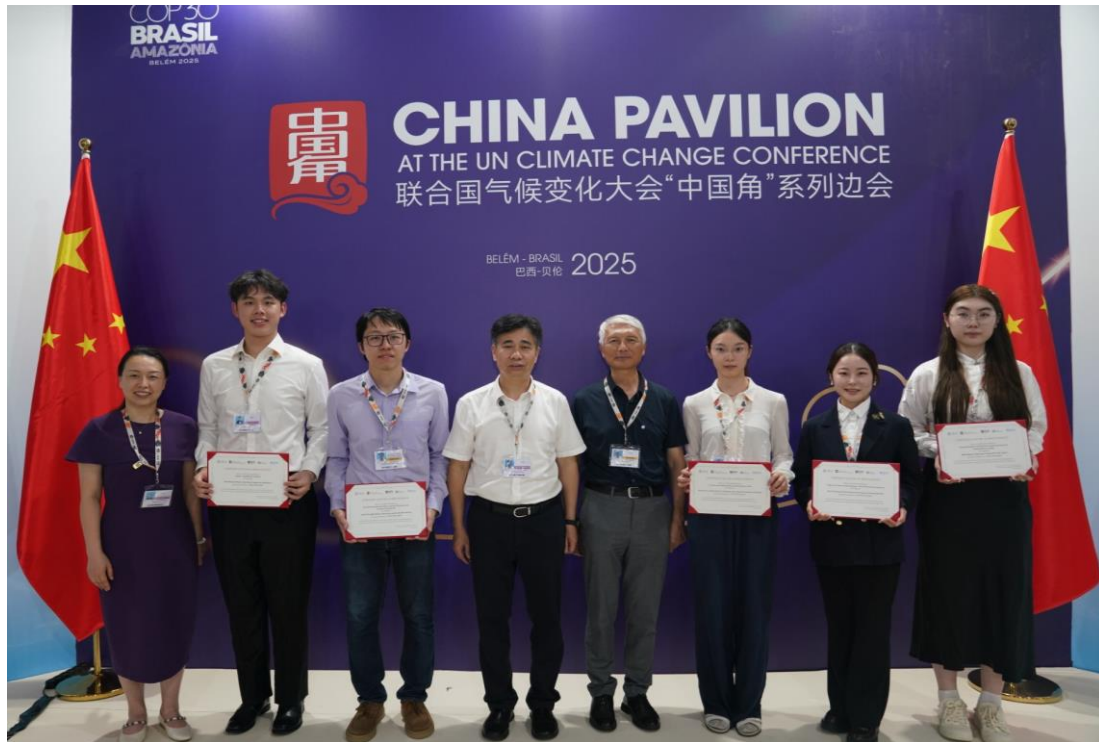
quality of presentation. Five teams ultimately advanced to the final round.

A roadshow held in Hong Kong on October 20th marked a significant transition—from an academic competition to real-world implementation.

The initiative reached its climax on November 14th with the finals of the "Asian Youth Climate and Health Innovation Challenge" during a landmark side event at the COP30 China Pavilion. As the Pavilion's first dedicated "Climate and Health" session, it elevated youth-driven innovation to the forefront of global climate dialogue. The event garnered high-level participation, including China's Vice Minister of Ecology and Environment, Mr. Li Gao; Brazil's Minister of Health, Mr. Alexandre Padilha; and Dr. Diarmid Campbell-Lendrum from the World Health Organization Headquarters, demonstrating robust political endorsement for integrating health into climate action. Mr. Xiong Shaoyuan, Deputy Administrator of the China Meteorological Administration, also attended and commended the youth-led projects for their profound understanding of real-world challenges and innovative use of technology.

The five finalist teams exemplified the pioneering spirit of Asian youth, presenting actionable ideas that highlight their role not only in identifying urgent climate-health threats but also in devising practical, scalable, and evidence-based responses. Overview of the finalist teams and their innovations **(Sorted by the first letter of the university name):**

- ✚ Nanjing University – Built hyper-local digital twin systems that enable precision forecasting of compound flood and dengue risks at the community scale.
- ✚ National University of Singapore – Created an intelligent real-time mosquito surveillance system that enhances early warning capabilities for dengue fever outbreaks under changing climate conditions.
- ✚ The University of Hong Kong – Designed a climate-adaptive safe navigation system to assist vulnerable groups in navigating urban environments safely during extreme weather.
- ✚ The University of Tokyo – Invented a biomimetic backpack that extracts drinking water from atmospheric air, offering a portable hydration solution for nomadic communities in arid regions.
- ✚ Tsinghua University – Developed shared mobile cooling devices designed specifically for urban delivery workers to effectively prevent heat stress during extreme heat events.



Representatives of the finalist teams and the event organizers at COP30