



Asian Climate-SDG Technology Innovation HackathOn for Next-generation (ACTION): Safeguarding Human Health in the Climate Crisis

Hackathon background and goals

The World Meteorological Organization (WMO) and the World Health Organization (WHO) have repeatedly warned that climate change poses severe challenges to global public health. In recent years, more and more countries around the world have prioritized addressing health risks from climate change. However, the current responses are largely concentrated in institutional frameworks, academic discourse, and public engagement initiatives, demonstrating substantive deficiencies in tangible and actionable technological solutions. This critical gap underscores the urgent global demand for cost-effective, replicable, and scalable technological solutions—including but not limited to new technologies, new materials and new informatics tools—to safeguard human health amidst the climate crisis.

To fill in the aforementioned gap, Tsinghua University, in collaboration with The University of Hong Kong and National University of Singapore, and supported by Asian Universities Alliance and the International Competence Development Committee of the Chinese Society of Educational Development Strategy, will convene the inaugural **Asian Climate-SDG Technology Innovation HackathOn for Next-generation (ACTION): Safeguarding Human Health in the Climate Crisis**, from May to November, 2025. This hackathon will require university students to submit project proposals outlining innovative solutions, accompanied by a 3-minute demonstration video. Finalist teams will be awarded prizes (shown below). It aims to:

- foster a deeper understanding on climate change and health issues among Asian university students
- encourage interdisciplinary collaboration
- stimulate innovative solutions to real-world challenges
- enhance their leadership and entrepreneurship skills

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Awards and Benefits Awaiting You

1. Participation in COP30: Each of the five finalist teams will receive one official accreditation to attend the 30th United Nations Climate Change Conference (COP30) to be held in Brazil. These representatives will present their projects in front of senior UN officials and ministers from multiple countries.

2. Pitching Opportunity with Scholarship: Each finalist team will receive a scholarship of HKD 20,000 provided by the University of Hong Kong, and will travel to Hong Kong to participate in a roadshow.

3. Certificate Award: Each team nominated by their respective universities will receive a certificate jointly issued by all organizers.

4. Professional Guidance: All teams will receive expert training in the fields of climate and health. The 10 teams advancing to the semi-finals will also receive personalized mentorship.

Note: An invitation to co-organize this hackathon has been extended to the World Meteorological Organization, with confirmation anticipated by mid 2025. Additional participation benefits will be announced in due course.

Hackathon Focus Areas

The hackathon invites innovative solutions focusing on, but not limited to, the following key areas:

- New technologies or materials for protecting the health of vulnerable groups during heatwaves (such as the elderly, outdoor workers, women, children, persons with disabilities, specific occupational groups, and marginalized communities)
- New temperature regulation technologies or materials for indoor and outdoor environments
- New technologies for protecting personal hygiene, drinking water safety, and environmental sanitation during floods and droughts
- New health protection technologies for coping with other extreme weather events in Asia (such as typhoons, cold waves, heavy snow, mudslides, etc.)
- New methods for protecting health from climate-sensitive infectious diseases (e.g., innovative technologies for mosquito and tick control, rodent control in underdeveloped areas; efficient and low-cost tracking and prevention technologies for climate-sensitive diseases)

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- New technologies and business models for forecasting, early warning, public education, and commercial innovation (e.g., how to provide efficient and low-cost weather forecasts in regions with weak meteorological infrastructure; health alert applications; personalized health management software that provides specific protective recommendations during extreme weather)

Judging criteria

- Technical Innovation (30%) - Emphasizes breakthrough thinking and originality and assesses the novelty of the solution
- Health Impact Metrics (20%) – Evaluates how effectively the solution addresses a health-related challenge, and includes measurable benefits or projected outcomes
- Scalability Potential (30%) – Assesses the practicality and potential for the solution to be adapted and/or expanded, and if the solution could create lasting impact
- Commercial Viability (20%) - Evaluates the business potential and long-term feasibility and success in the market

Note: Commercial entities (if applicable) must be registered after 1 January 2018. The project must demonstrable ownership rights with zero active IP disputes.

Judges

An esteemed judging panel comprising world-leading academics, representatives from the UN and national governments, venture capitalists, and public health experts will be formally announced on [event website](#) in the coming weeks.

Eligibility & Team Composition

- Eligibility

Participants: Currently enrolled undergraduate/graduate students from universities invited to participate in the hackathon (list shown below). Alumni and postdoctoral researchers may join as non-core members.

- Team Structure

3-5 members per team all from the same university

A minimum of two core team members must be currently enrolled undergraduate/graduate students

Multi-disciplinary collaboration encouraged

Please note that public exposure opportunities, such as media coverage and international conference presentations, will be prioritized for core members.

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Submission Requirements

- Completed Project Proposal (Download the proposal template on [event website](#))
- 3-minute concept/demonstration video (Language in English; MP4/H.264; submissions exceeding 3:05 automatically disqualified)

Deadline:

The specific date and time will be determined by each invited university (expected in early August). Late submissions will not be accepted. Please note that all university nominations must be finalized by August 15, requiring submission deadlines to be set prior to that date.

Where to submit:

Please submit the above documents to the contact email address specified by your invited university, **AND** copy to gofio@mail.tsinghua.edu.cn The email subject should be titled “ACTION2025-University-Department-Leader's Name”. It is recommended to use Dropbox, Baidu Cloud, or other cloud sharing platforms to ensure the attachment size does not exceed the email limit. If you are unsure of the submission email for your university, or you have other questions, please check the event website or contact healthclimate@tsinghua.edu.cn

Preliminary Schedule (subject to change)

Time	Phase	Events	Format
May-Aug	Hackathon Promotion and Training	Tsinghua University will hold information sessions (including hackathon training and Q&A sessions) in June. Students interested in participating are strongly recommended to attend to enhance the competitiveness of their projects. Specific time and guest speakers of the information sessions can be found on the event website. Specific date and email to submit required documents are decided by each invited university (mostly likely in early August) Please copy your submissions to gofio@mail.tsinghua.edu.cn Late entries will not be accepted! If unsure of your school's submission email, please contact healthclimate@tsinghua.edu.cn	Online. Training materials can be downloaded from the event website .
Aug.11-15	University Nomination	Each university needs to nominate up to 3 teams and send their submission documents to Tsinghua	/

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		University (healthclimate@tsinghua.edu.cn) by Aug 15. Submissions lacking university nomination will not be considered.	
Aug.18-29	Preliminary review	Tsinghua University invites judges to review all nominated submissions and selects 10 teams to enter semi-finals. Results to be announced by end of August.	Virtual
Sep.1-14	Mentoring	Tsinghua University assigns mentors to each of the 10 teams, to further improve the submissions. Updated submissions to be sent to Tsinghua University (healthclimate@tsinghua.edu.cn) by Sep 14.	Virtual
Sep.15-29	Semi-final	Tsinghua University invites judges to further evaluate the 10 teams' updated submissions and selects 5 finalist teams.	Virtual
Sep.30	Announcement of the Final list	Results to be announced on event website by Sep 30.	Virtual
October (specific date to be announced on the website)	Roadshow	Finalist teams will participate in a startup project roadshow held in Hong Kong, where they will present their projects and receive suggestions for improvement.	In person in Hong Kong
November	Finals and Award Ceremony at COP30	Each finalist team selects one representative to present solutions alongside WMO and COP activities, invite experts to review, and announce results with organizers and winning teams.	In person in Belém, Brazil

All event and contact information, training materials and progress update could be found on [event website](#).

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Invited universities include (sorted in alphabetical order):

- Beijing Institute of Technology (China)
- Chulalongkorn University (Thailand)
- Indian Institute of Technology Bombay (India)
- King Saud University (Saudi Arabia)
- Nanjing University (China)
- National University of Singapore (Singapore)
- Nazarbayev University (Kazakhstan)
- Peking University (China)
- Qatar University (Qatar)
- Renmin University of China (China)
- Seoul National University (Republic of Korea)
- Shanghai Jiao Tong University (China)
- The Hong Kong University of Science and Technology (China)
- The University of Hong Kong (China)
- The University of Tokyo (Japan)
- Tsinghua University (China)
- United Arab Emirates University (UAE)
- Universiti Malaya (Malaysia)
- University of Colombo (Sri Lanka)
- University of Indonesia (Indonesia)
- University of Yangon (Myanmar)
- Zhejiang University (China)

ACTION HACKATHON

SAFEGUARDING HUMAN HEALTH IN THE CLIMATE CRISIS

*Millions in Asia
are battling deadly heatwaves,
catastrophic floods,
and climate-driven diseases.
Your Ideas Can Save Lives!*

Awards and Benefits Awaiting You

All participating teams
Certificate & series of exciting lectures

Finalist teams
Attendance at COP30 in Brazil & Roadshow
in Hong Kong (scholarship of HKD 20,000)

More benefits on the way

Deadline

No later than 10 August.
Specific submission date decided
by each invited university.

Visit event website here:



<https://www.dess.tsinghua.edu.cn/en/Events/action2025.htm>

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Joined by: 20+ Asian Top Universities