

# Leading academic collaborations towards a net-zero future

A five-year-old research institution affiliated with one of **CHINA'S LEADING UNIVERSITIES IS DRIVING STRATEGIC PLANS TO TACKLE CLIMATE CHANGE.**

## Climate change is one of the world's most pressing issues.

The Paris Agreement demonstrates the international commitment to green, low-carbon development. However, its goal of limiting global warming to well below 2°C above pre-industrial levels is still a great challenge. Against this backdrop, Tsinghua University established the Institute of Climate Change and Sustainable Development (ICCSA) in 2017. Focusing on strategy and policy research, international dialogue and exchange, and education and training, ICCSA strives to become a top think tank, providing solutions to China's low-carbon transition and global climate governance.

It has since improved its reputation in spearheading collaborative and interdisciplinary

research, ranging from long-term low-carbon development strategy, methane reduction, to Nature-based Solutions (NbS) such as carbon sink. The goal is to offer science-based advice for climate policies at home and abroad, as Zheng Li, ICCSA's executive vice president and the director of Tsinghua's Laboratory of Low Carbon Energy, explains.

In 2021, for example, ICCSA led the publishing, by Springer, of the report on *China's Long-Term Low-Carbon Development Strategies and Pathways*, which models different transition pathways under four long-term policy scenarios against quantitative and qualitative indicators, such as costs, emission profiles and technological capacities.

His team puts forward policy recommendations on raising

climate ambition that turns out to be aligned with China's 14<sup>th</sup> Five-Year Plan and the 2030 Nationally Determined Contributions (NDCs) under the Paris Agreement, informing the country's long-term policymaking for society's low-carbon transition.

"ICCSA is now working with more than 20 institutions in China to conduct a new round of policy analyses on China's mid-term low-carbon transition by 2035, and long-term carbon neutrality transition before 2060," says Li. "We are taking into account socio-economic development, international governance, as well as sectors such as energy, industry, transport, building, agriculture and forestry."

Collective effort across and beyond academia is crucial for achieving a net-zero future. ICCSA has organized cross-disciplinary research efforts across Tsinghua while collaborating with international organizations such as UNEP (United Nations Environment Programme), UNFCCC (United Nations Framework Convention on Climate Change) and the Intergovernmental Panel on Climate Change (IPCC).

In addition, ICCSA actively promotes this by operating the Global Alliance of Universities on Climate (GAUC). Initiated by Tsinghua during the 2019 World Economic Forum, GAUC is an alliance of world-leading

universities that focuses on tackling climate change. Currently, it has 15 member universities across six continents.

"I'm excited to see first-hand how the younger generation is eager to collaborate through platforms GAUC provided, such as one of our flagship programmes, the Global Youth Summit on Net-zero Future," says Li.

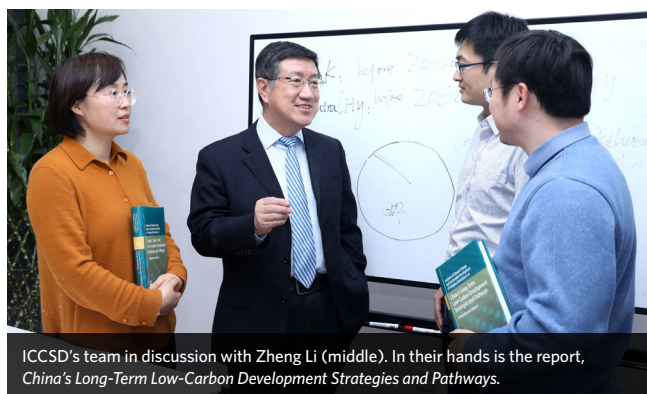
The summit, which was co-organized by GAUC member universities in 2021, presented a total of 30 events around COP26 and attracted more than 1.25 million participants worldwide.

ICCSA has also launched the 'Climate Change Global Lectures', a lecture series live-streamed globally and delivered by more than 20 renowned climate leaders and experts, included China's special envoy on climate change Zhenhua Xie, executive vice president of the European Commission Frans Timmermans, and former United States Special Envoy for Climate Change, Todd Stern.

"We are dedicated to empowering researchers and entrepreneurs, as well as international collaborations to push through new research innovations and timely solutions, which call for global collaboration beyond China," says Li. ■



Website: <http://iccsa.tsinghua.edu.cn/>



ICCSA's team in discussion with Zheng Li (middle). In their hands is the report, *China's Long-Term Low-Carbon Development Strategies and Pathways*.



GAUC activities inspire collaboration amongst young global academics.