

**Global Climate Change Institute (GCCCI)/  
Energy, Environment and Economy Institute (3E),  
Tsinghua University, China**

Global Climate Change Institute (GCCCI) / Energy, Environment and Economy Institute (3E) is the research center of Tsinghua University to address climate change policy issues and the integrated sustainable development strategies on energy, environment and economics. The former of GCCCI/3E is the Institute of Techno-Economics and Energy System Analysis (ITEESA), Tsinghua University, which was set up in the middle of 1980s, engaged mainly in energy and environment planning and policy study with remarkable achievements. Focusing on new challenging policy issues of climate change, GCCCI/3E was established to take the place of ITEESA in middle 1990s.

GCCCI/3E together with the former ITEESA have long been on the international and domestic fronts of addressing energy, environmental and economic challenges ever since the 1980s, and have come to be recognized, with its distinguished academic achievements, as an important policy decision supporting and advising think-tank for the governmental agencies, and a leading research institution in the field of energy system analysis, resource management and sustainable development as well as global climate change mitigation.

Over the global climate change issues, GCCCI/3E has been involved in the national key science and technology programs during the 8th, 9th and 10th Five-Year Plan periods, and international cooperation projects, especially focusing on the global strategy on GHG emission mitigation, GHG emission reduction technology options and corresponding social-economic impact assessment, and the Clean Development Mechanism (CDM) under Kyoto Protocol. The institute, with its outstanding contributions to the national climate change policies and international negotiations under the UNFCCC, was awarded with the Second-Class Prize of the National Science & Technology Progress issued by the Ministry of Science & Technology (PNSTP\_MOST) and the First-Class Prize of Science & Technology Achievement issued by the Ministry of Education (PSTA\_MOE).

As accredited by UNFCCC Secretariat as NGO representative of China and with one of its staff serving as the member of Methodology Panel under the CDM EB, GCCCI/3E is active in international efforts in dealing with global climate change. From COP1 on, GCCCI/3E has been devoting members to the UNFCCC negotiation delegation of the Chinese Government. Especially, in the field of CDM, GCCCI/3E gains international recognition and reputation for its capability both in academic research and in promotion of CDM cooperation and implementation in China.

In the field of climate change, GCCCI/3E has been engaged in activities categorized as follows:

- Climate change policy studies:
  - *National policy study to address climate change*, The National Key Scientific Research Program, 1991-1995.

- *China Climate Change Country Study*, first of its kind and sponsored jointly by DOE/USA and MOST, 1994 -1996.
  - *Asia Least Cost GHG Abatement Technology Strategy (ALGAS)-China Country Study*, sponsored jointly by GEF/ADB, 1995 -1998.
  - *National GHG mitigation strategies and their social-economic impacts assessment*, The National Key Scientific Research Program, 1996-2000.
  - *Long term GHG emission mitigation scenarios study for China*, The National Key Scientific Research Program, 2001-2003.
  - *AIJ and CDM related methodology and policy studies*, The National Key Scientific Research Program, 1998-2000.
  - *Climate change information service system development*, The National Key Scientific Research Program, 1998-2000.
  - *Carbon market structure and CDM/CERs pricing policy study*, The National Key Scientific Research Program, 2001-2003.
  - *China's National Strategy to Address Climate Change*, National Key Scientific Research Program, 2001-2003.
- AIJ and CDM methodologies and their application studies:
    - *AIJ methodology study and project case studies (for all of the four AIJ projects hosted by China)*, sponsored jointly by Norway, NEDO/Japan and MOST/China, 1997-2000.
    - *Tsinghua-Keio 3E Cooperative Study on CDM*, sponsored by NEDO/Japan, 1999-2004;
    - *China CDM Country Study*, sponsored jointly by the World Bank/Swiss, GTZ/Germany, SICP/Italy and MOST/China, 2001-2004.
    - *Opportunity for CDM in the energy sector of China*, sponsored jointly by the ADB and MOST/China, 2002-2004.
    - *China-Canada Cooperation on Climate Change (C5) Project: CDM Component*, sponsored jointly by CIDA/Canada and National Development and Reform Commission/China, 2001-2004.
    - *CDM Project Development Survey*, sponsored by Toyota Tsusho, implemented by GCCI and ITTC of Tsinghua, 2003-2004.
    - *CDM Case Study of Zhuhai Power Plant Project (Phase II)*, sponsored by BP Co., implemented by ERI of NDRC and GCCI of Tsinghua, 2002-2003.
  - Master and PhD education programs on climate change economics and policies as well as CDM methodologies.

On the basis of the CDM project development achieved on these studies, GCCI/3E has been making efforts to build up pipelines with industries and governmental agencies toward real implementation of CDM projects in China. Under the directions of the National Coordination Committee on Climate Change, Tsinghua CDM Promotion Center was just established to facilitate CDM project cooperation, co-sponsored by GCCI/3E and the International Technology Transfer Center (ITTC) of Tsinghua University.

In addition to the climate change field, following the former ITEESA, GCCI/3E has been committed to promoting China's long-term sustainable energy development strategy, not only at national level, but also for rural and urban areas. Since the middle of 1980s, the integrated energy planning methodology has been developed with a view to solve the shortage both in energy supply and investment as well as poor management in China. Since the early 1990s, Integrated Resource Planning models and Demand Side Management approach have been applied in order to explore least cost energy solutions with minimum environmental and socio-economic impacts. Many study reports were published on the middle- & long-term national energy strategy, energy mix and policy, rural and renewable energy planning, urban energy and environment development strategy, energy efficiency and conservation, clean energy technology assessment, market economy and system reforming in energy sectors, supported by the Ministries and Sino-EU energy cooperation programme as well as the other international donors.

On the front of resource management and environmental preservation, distinguished academic achievements have been made, including the Tarim Basin Water Management and Desertification Project, which has been awarded with the First-Class PSTA\_MOE and CIDA (Canadian International Development Agency) Excellent Project Award. Trusted by the Environmental Protection & Resources Conservation Committee of the National People's Congress, the institute is in the process of drafting *China Renewable Energy Development and Utilization Promotion Law*. Also the institute is the member unit of the Deputy Council Director of China Energy Research Society (CERS).

GCCI/3E consists of the following research groups:

- Long-term climate change and energy policy/strategy group,
- CDM and AIJ project development group,
- Emission mitigation/energy technology assessment group,
- Rural energy and renewable energy development group,
- Urban energy/natural gas and building energy group,
- Transportation energy group,
- Clean coal and energy efficiency training center,
- Water resources and land use group,
- Industrial economy and market economy reforming group, and
- Energy system modeling group.

The director of GCCI/3E is Prof. Wu Zongxin while Prof. He Jiankun, Executive Vice President of Tsinghua University is one of the academic leaders. Staffed by 22 professors and senior researchers and reinforced by 20 PhD candidates and 40 master degree candidates, GCCI/3E is capable and ready to continue promoting CDM in China, either studying programs or implementing real CDM projects.