

**George Bush China-U.S. Relations Conference:  
Development, Energy, and Security  
October 22-25, 2007  
Washington, D.C**

**RESEARCH ROUNDTABLE FINAL REPORT**

Session Title: *Bioenergy Development, Climate Change Mitigation, and Energy Security*

Co-Chairs: U.S.: **Jianbang Gan** and **Bruce A. McCarl**, Texas A&M University; Chinese: **Kejun Jiang**, China's Energy Research Institute

Session Summary: Our Research Roundtable was designed to address the opportunities and challenges that face both China and the U.S. related to the development of bioenergy for mitigating CO<sub>2</sub> emissions and enhancing energy and economic security. Specific objectives were to discuss (1) the potential role of bioenergy in primary energy supply and CO<sub>2</sub> mitigation, (2) major obstacles to bioenergy development, (3) co-benefits/costs associated with bioenergy production and consumption, (4) policies for increasing the share of bioenergy in primary energy supply, and (5) opportunities and mechanisms for collaboration in bioenergy research and development. Such discussion was expected to enhance future cooperation among the Roundtable participants from both the U.S. and China.

The Roundtable consisted of six sessions: (1) Policies, Legislation and Background for Biofuels; (2) Greenhouse Gases and Biofuels; (3) Forests and Biofuels; (4) Biofuels in a Greenhouse Gas Mitigation World; (5) Distributed Generation and Load Efficiency; and (6) Alternative Generation and Environmental Impacts. The presentations given at the Roundtable addressed the Roundtable's theme from diverse perspectives and represent the latest and state-of-the art research on energy and climate policy. The first four sessions primarily focused on economic and policy issues related to biofuels, greenhouse gas mitigation, and energy security. The last two sessions on the second day of the Roundtable were jointly held and organized with another Research Roundtable on "Electric Energy for the 21st Century: the China-U.S. Research and Development Needs." These joint sessions provided opportunities for interactions and exchange among economists and engineers.

Participants in our Roundtable were carefully selected, representing leading experts in their respective fields. We were fortunate to have Dr. Edward P. Lazear, Chairman of the Council of Economic Advisers join us and give opening remarks, which helped set the stage for the Roundtable and facilitate subsequent discussion. We were also proud that four of our eleven invited speakers had served on the Intergovernmental Panel on Climate Change (IPCC) that was awarded the 2007 Nobel Peace Prize. Our Roundtable participants came from several institutions in China and the U.S., including China's Energy Research Institute, Fujian Agriculture and Forestry University (China), Duke University, Auburn University, U.S. Department of Agriculture, U.S. Environmental Protection Agency, Joint Climate Change Institute (Pacific Northwest National Laboratory and University of Maryland), and Texas A&M University. Such a diverse group made the discussion interesting and beneficial.

Findings/Recommendations:

1. The Roundtable provided a great opportunity for exchanging research work and ideas among the participants.
2. The size and format of the Roundtable were appropriate for in-depth discussion on focal issues.
3. The joint sessions with the Electricity Roundtable were helpful; and interactions among the participants in two related disciplines/groups were excellent.
4. Bringing speakers from China was necessary, yet expensive.
5. Encouraging the participation of graduate students in the future could be beneficial.

Future Collaborations: Several participants in our Roundtable have collaborated in their research. We believe that this trend will continue. Given the fact that China has emerged as a large energy consuming country and greenhouse gas emitter, it is extremely important to develop and strengthen partnerships with our Chinese counterpart in energy and environmental policy research. Most likely cooperation area would be economic and policy analysis of biofuels and greenhouse gas mitigation. Yet, funding remains a major barrier to such an international effort. Nevertheless, we will continue looking for potential cooperation opportunities.