

FEWS

Research Network

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- Tennessee Department of Environment & Conservation

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- Shenyang Agricultural University
- Chinese Academy of Forestry
- Sandia National Laboratories
- Belfer Center for Science and International Affairs of Harvard Kennedy School
- And others

US-China Joint
Symposium on the
Nexus of Food, Energy,
and Water Systems

December 7 - 9, 2017

Franklin Marriott Cool Springs,
Franklin, Tennessee, USA

The Food-Energy-Water Systems (FEWS) Research Network is a joint project between the United States and China focused on bringing together transdisciplinary environmental areas to identify and solve future challenges.



The goal of this conference is to establish a US-China crosscutting research coordination network for collaboration in the nexus of food, energy, and water systems.

Participants in areas of academia, government agencies and private industry have expertise covering food, energy, water, sociology, and policy.

The quality and production of our food is directly tied to energy consumption, water and soil resources, and overall ecosystem health. Maintaining sustainable and environmentally acceptable natural resource use will be key to meeting the needs of a growing global population.

How will *YOU* support this effort?

There is a need for transdisciplinary areas of academia and industry to work together to identify future challenges that need to be the focus of current research efforts.

A new grant sponsored by the National Science Foundation (NSF) will provide academic scholars, student researchers, industry leaders, and government officials the platform to discuss their expertise and identify cutting-edge transdisciplinary research projects that will help achieve a sustainable use of natural resources for food, energy, and water systems.

IDENTIFY FUTURE CHALLENGES FOR ENVIRONMENTAL SUSTAINABILITY

For the next two years, researchers from the University of Tennessee Institute of Agriculture, UT Knoxville, Oak Ridge National Laboratory, and Nanjing University will host workshops for interested individuals from academia, industry, and government to develop an environmental research network around the topic of food, energy, and water systems (**FEWS**). The goal of this project is to build an international research coordination network and to generate technical whitepapers and documents that support international collaboration and research innovation on the topic of sustainability.

Workshops will cover identification of challenges, teaming activities and proposal development, and strategic research planning. Attendees will have the opportunity to develop transdisciplinary research initiatives and turn them into innovative proposals, which may be jointly funded by the United States NSF and the China NSF.

Another component of **FEWS** is to develop a framework to overcome hurdles to transdisciplinary research both between and among collaborating researchers from the United States and China and to establish models for education, training, communication, and evaluations of the international cooperation.

Major knowledge gaps and research limitations exist in the areas of nutrient and water resource availability and quality, sustainable energy production, environmental degradation, and land-use planning, restoration, and reutilization. Innovative, transdisciplinary projects from the areas of academia, industry, and beyond will bring us one step closer to shrinking those gaps and providing a roadmap for an increased demand of sustainable food, water, and energy systems.

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