



INTERNATIONAL FOOD SECURITY AT ILLINOIS (IFSI)

OUR CHALLENGE

The challenges for the world's food systems are daunting. Almost a billion people suffer from chronic hunger. In the next 25 years, countries that now have the greatest concentration of hungry people are expected to have 2 billion more mouths to feed. Agriculture faces additional demands for food and fuel even as the planet's natural resource base for production is under threat.

To answer this challenge, the University of Illinois College of Agricultural, Consumer and Environmental Sciences (ACES) established International Food Security at Illinois (IFSI). This interdisciplinary initiative will **help secure abundant food for all through food systems research, innovation, and outreach**. By applying University of Illinois expertise to food security, IFSI can enable food systems in the United States and worldwide to better serve the world's food-insecure people.

OUR MISSION

IFSI supports the application of science in a food systems framework to help secure abundant food for everyone. Our intention is to build the most comprehensive farm-to-fork university program for global food security in the nation. The goal is food security—meaning that all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for active and healthy lives.

OUR STRATEGY

A food system is the array of activities involved in producing and consuming food. IFSI activities seek to understand food systems, relate food insecurity to specific aspects of those systems, and intervene to improve food system performance. IFSI contributes to improved food security by coordinating activities following a food systems approach, by linking capacity in ACES with other resources of the University of Illinois, by cooperating with industry and institutional partners here and abroad, and by magnifying the impact of discoveries through domestic and international outreach and capacity building.

OUR GOAL

Building better food systems for greater food security

Food systems connect food production, processing, and distribution to food consumption within relevant social and cultural frameworks. IFSI's approach situates food-insecure people in these food systems, enabling researchers and outreach specialists to identify promising interventions and address barriers to food system performance. Ultimately, better food system performance will yield greater food security.



OUR INTENT

We intend to build the **most comprehensive farm-to-fork university program for global food security in the nation**. Centered in the College of ACES, current and future intellectual capabilities from a range of academic departments will be devoted to a broad spectrum of problems that are vital to achieving food security. We will advance knowledge relevant to critical factors in food systems that in turn affect international food security. These include:

- Agricultural and food production efficiency and sustainable practices
- Management systems using integrated approaches
- Innovations in genetics, genomics, reproduction, bioprocesses, and biotechnology
- Cultural, socio-economic, and demographic factors relevant to food security
- Data analytics and modeling, systems informatics, and computational genomics
- Health outcomes related to food insecurity and nutritional status
- Agricultural, food, and nutrition policies affecting household food security
- Post-harvest loss and food waste remediation
- Family, community, and partnership strategies to attain food security
- Education and extension interventions in food systems
- Environmental sustainability, epidemiology, and microbial ecology

OUR APPROACH

We implement a four-pronged approach to achieve food security—innovate, empower, educate, and evaluate.

Innovate: Our research efforts with partners around the world seek to identify solutions to complex problems that trap people in poverty and food insecurity. Innovations like improved soy varieties for Africa and appropriate farm equipment for smallholders will help make good food available and affordable.

Empower: By building the capacity of individuals and institutions, our programs enable people from some of the world's least food-secure regions to find solutions that work in their contexts. For example, rural extension and advisory service systems in Africa and Asia have been enhanced by work of ACES' Modernizing Extension and Advisory Services (MEAS) program.

Educate: Through multiple means—lectures, seminars, publications, and innovative educational channels and curricula—IFSI works with partners to inform the public and the scientific and policy communities about problems and progress in the struggle for food security. Our International Distinguished Lecture series brings global leaders in food security to local audiences.

Evaluate: Rigorous evaluation of the impact of interventions to improve food security is a key to progress. For example, our scholars assess the effectiveness of domestic and international food security initiatives like animal donation in Zambia and food assistance in the U.S.

OUR PARTNERS

To conduct our work, IFSI first draws upon the strengths of colleges, schools, and centers of excellence on the University of Illinois campus; external partners add breadth and depth to our capabilities. We seek to engage the U.S. commercial food sector in removing constraints in the global food system. Our partnership with Archer Daniels Midland Company through the ADM Institute for the Prevention of Post-Harvest Loss is a model of corporate–university collaboration to address food security. IFSI researchers also work with international agricultural research institutions, including the International Rice Research Institute (IRRI), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the International Institute for Tropical Agriculture (IITA), and the International Food Policy Research Institute (IFPRI). Successful partnerships extend our global reach and enhance our sensitivity to international food challenges.

If you are part of the U of I community and wish to be an IFSI affiliate, please visit: intlprograms.aces.illinois.edu/content/application-affiliate-faculty.