The world population is expected to grow to over nine billion people by the year 2050. Meeting the rising demand for food, feed, and energy with current technology and agricultural resources will be a formidable task. Our farms will have to produce more, on less land, and with more judicious use of inputs, requiring new science, technology, and innovations. The growing challenges of a looming water crisis, increasing energy demand, loss of biodiversity, and likely climate change will put additional strains on the global food production system.

These factors and other socio-economic issues, including strategies to make food accessible and affordable to those who need it, form an interacting, complex mix of challenges, the full scope of which is not yet known. We currently do not possess the data, tools, and skill-sets to address these challenges in order to maximize their economic, social and ecological value.

Center for Global Food Security

INITIATIVE

Purdue's Center for Global Food Security (CGFS) is a key member of the Global Sustainability Institute in Discovery Park. The Center is helping to ensure that there is enough food, feed and fuel for the 21st century and beyond. The Center will mobilize and focus its faculty and partners on the challenges arising from interactions among agricultural production and food systems with climate change, energy demand and supply, policy responses, population growth and associated development pressures. With a comprehensive, interdisciplinary, and holistic approach to educational and research programs, CGFS will develop strategies and tools to address the causes and consequences of food insecurity, and to equip a new generation of global leaders to find scientific solutions for global food security issues.

IMPACT

Through a 5-year, $5 million Borlaug Fellows Program grant, CGFS provides financial support to U.S. graduate students to undertake research related to food security in a developing country. This “next generation” of U.S. scientists is carrying out pioneer work to improve food security in Africa, Asia and Latin America. To date, the Fellows program has awarded 81 fellowship grants worth $1,500,000 for food security related research in 31 developing countries. As a result of this research, countless poor and marginal people are having improved access to healthy, nutritious food as a result of the research.

The Borlaug Program has also hosted two annual Summer Institutes. Thus far, 95 graduate students have participated in a two week intensive program of lectures, field visits and group projects focused on a multi-disciplinary approach to resolving global food security challenges.

The Integrated Striga Control in Sorghum in Ethiopia and Tanzania, a 4-year, $5 million project funded by the Bill & Melinda Gates Foundation, trained over 4,450 farmers in the two countries in integrated Striga management to curtail infestation of this terrible parasitic weed, and engaged 1,000 farmers in seed production of drought tolerant and Striga resistant varieties for distribution to thousands of small holder farmers.

The CGFS organized a Hunger Awareness and Food Security Information Fair to address food security challenges in Indiana. The fair connected student groups concerned about food security such asSwipe Out Starvation, Full Circle Agriculture at Purdue, and Heifer International to area civic organizations such as Food Finders Food Bank, Lafayette Transitional Housing Center and the Sagamore West Farmers Market so as to join forces in addressing local food needs. As a result, the civic groups are receiving help from student volunteers, where for example, Full Circle Agriculture assisted the Food Finders in establishing a garden to produce vegetables for the food bank. The CGFS has also provided more than $21,000 in grants to student groups to carry out collaborative efforts to address food security in Indiana and internationally.

The CGFS also provided $200,000 to four multidisciplinary teams of faculty to carry out innovative research on food security in developing countries. To date, four teams comprised of faculty from different departments and colleges were awarded grants of up to $50,000 each to work collaboratively and serve as a springboard to receiving larger grants from mainstream donors.

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