

# TITLE XII Report to Congress FY 2013

#### December 2014

This report is submitted to Congress pursuant to Section 300 of Title XII of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000.



#### **FOREWORD**

I am pleased to present the U.S. Agency for International Development Title XII Report for Fiscal Year 2013. The report highlights how Title XII universities, the Board for International Food and Agricultural Development (BIFAD), and other partners are strengthening food security and combating malnutrition in association with Feed the Future, the U.S. Government's global hunger and food security initiative.

U.S. universities are significantly advancing agricultural research for development by finding research solutions to pressing food security problems. In this report, we provide an overview of the types of U.S. university partnerships that are essential to our shared goal of ending extreme poverty in the next two decades. The current and future U.S. university partnerships that we describe are advancing a new collaborative model of development that is evidence-based and results-driven.

Since the launch of the Feed the Future initiative in 2010, USAID has invested more than \$450 million in directly funded, agricultural-related U.S. university programs. In FY2013, USAID invested nearly \$110 million in partnerships with U.S. universities at a level similar to FY2012. These directly funded programs include more than 50 lead universities in nearly 30 states in the areas of agriculture, environment, and higher education.

Feed the Future is already demonstrating clear impact - in FY2013 programs reached more than 12.5 million children with nutrition interventions and helped nearly 7 million farmers and food producers use new technologies and management practices. It also leveraged more than \$160 million in private sector investment, a 40 percent increase from FY2012. In addition, complementary efforts under the New Alliance for Food Security and Nutrition involve more than 200 companies that have signed Letters of Intent to responsibly invest more than \$10 billion in African agriculture.

The Feed the Future Innovation Labs, Higher Education Solutions Network (HESN), and Global Development Lab (launched in FY2014) are recent examples of how U.S. university partnerships with the public and private sectors can address intractable challenges through data-driven, results-oriented approaches. For example, Feed the Future is pairing American ingenuity and expertise with some of the best and brightest minds across the globe through its 24 Feed the Future Innovation Labs. A unique network supported by over 60 top U.S. colleges and universities along with many partner country research and educational institutions, the Feed the Future Innovation Labs are on the cutting edge of efforts to research, develop, and take to scale safe and effective technologies that address current and future challenges posed by a changing climate and the need to feed a growing global population. The Feed the Future Innovation Labs also include short- and long-term training to support sustainability of these efforts.

I look forward to BIFAD's continued role in providing advice on Title XII university issues and guiding us toward our goal of ending global hunger and extreme poverty. Our submission of this report affirms our commitment to partnering with BIFAD and Title XII universities in achieving these ambitious goals.

**USAID** Administrator

Rajiv J. Shah

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#### Introduction

In this report, we reflect on USAID investments in U.S. university partnerships over the past four years and how that investment has spurred agricultural research, teaching, extension, capacity development and outreach since the 2010 launch of the Feed the Future initiative. This initiative embodies the U.S. Government's global hunger and food security efforts, dedicated to increasing global food security and reducing poverty worldwide. Under Feed the Future, more than \$4 billion has been obligated by the U.S. for global food security. Since FY2010, USAID, together with the Millennium Challenge Corporation (MCC), and the U.S. Department of the Treasury, has obligated more than \$1 billion annually for this initiative.

Feed the Future has supported U.S. university partnerships to reduce hunger and poverty in 19 focus countries and across regional platforms in Latin America and the Caribbean, Asia, and Africa. Since FY2010, USAID has invested heavily in university research to address food, health, nutrition, rural income, and environmental problems in food-deficit countries. Funding has been steady over the past four years, with an average of \$114 million obligated annually to support agricultural-related U.S. university partnerships. In the past four years, USAID has awarded more than \$450 million to more than 50 lead universities for agricultural-related programming in higher education strengthening, agricultural research, and the environment (natural resources, biodiversity, and clean energy) in nearly 30 states (Figures 1 & 2).

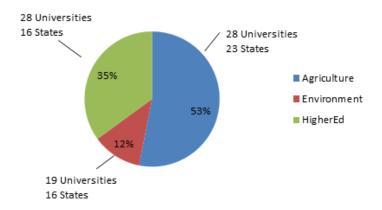


Figure 1. Percentage of USAID directly funded university partnerships FY 2010-2013 by program with the number of funded universities and number of states in which the funded universities are located.

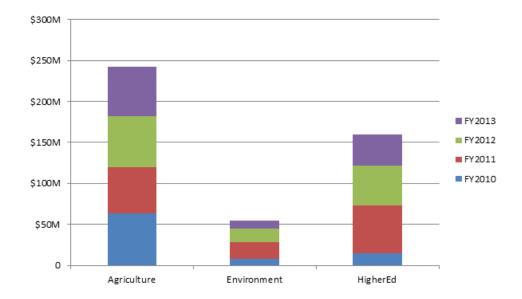


Figure 2. Level of funding for USAID directly funded university partnerships by program element, FY 2010-2013

## **Investing in Agricultural Research: Feed the Future Innovation Labs**

Agriculture remains one of the primary areas of USAID investment within USAID's economic development sector (Figure 3). In FY2013, agriculture programming represented nearly a quarter of all investment in the economic development sector.

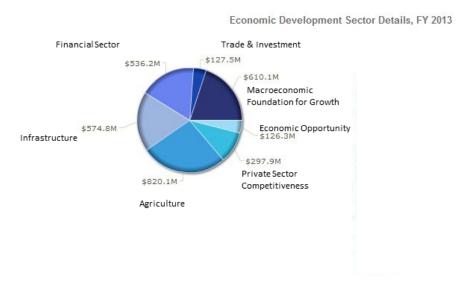


Figure 3. Distribution of funds in the USAID economic development sector in FY 2013 (foreignassistance.gov)

Through Feed the Future, USAID is focusing on building capacity at the local level through country-owned and country-led initiatives that are helping alleviate hunger and promote sustainable development. In addition to ongoing contributions from the former Collaborative Research Support Programs (CRSPs), now known as the Feed the Future Innovation Labs, USAID created a dozen new Feed the Future Innovation Labs in FY2013, which has more than doubled the number of Feed the Future Innovation Labs conducting research in FY2014 and increased the breadth of agricultural research programs represented. Two of the Feed the Future Innovation Lab implementing leads, University of California-Riverside and University of Texas-El Paso, are Minority-Serving Institutions (MSIs). Innovation Labs additionally include 15 MSI partners as well as partners from the private sector, government ministries, and non-profit organizations.

The Feed the Future Innovation Lab university partnerships are engaging international agricultural research centers, the private sector, and in-country agricultural research and educational institutions in the transformation of agricultural production systems. The Innovation Labs are conducting this collaborative research under the umbrella of the Feed the Future Food Security Innovation Center (FSIC), established to implement the Feed the Future Research Strategy policy by addressing research and capacity development themes that include heat and drought tolerance, climate-adapted cereals, advanced technology solutions for animal and plant disease, safe and nutritious foods, and legume productivity.

The Feed the Future FSIC is organized by seven linked programs that engage Feed the Future Innovation Labs in research that is strategically aligned with USAID's science and technology programs. The aim is to sustainably grow more nutritious food while using fewer resources in key regions—the rice-wheat systems of the Indo-Gangetic plains of South Asia, the Sudano-Sahelian systems in West Africa, and the maize and livestock mixed systems in East and South Africa. In FY2014, there are 24 Feed the Future Innovation Labs involving more than 65 partner universities across the country (see Table 1 in the Appendix).

The contribution of Feed the Future Innovation Labs to applied research and capacity development is reflected in a long-term commitment to find sustainable solutions to food security challenges. The Feed the Future Innovation Labs benefit from their consortia of international and regional partners who provide a strong global base of knowledge from which to address global food security problems. Most of the Innovation Labs have programs in several Feed the Future countries, making it possible to apply knowledge from one region to another region facing similar challenges (Figure 4).

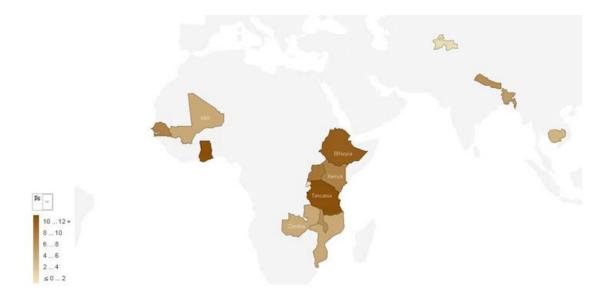


Figure 4. Number of Innovation Labs (ILs) with project and partners in the Feed the Future countries (not shown: Guatemala has 6 ILs, Honduras, 4ILs)

The following Innovation Lab success stories provide examples of how the Labs are improving food security and reducing poverty in Feed the Future focus countries:

# Virginia Tech University Collaborates with African Researchers to Combat Invasive Tomato Pest

Tomato leafminer, or *Tuta absoluta*, is an invasive insect pest native to South America that threatens to wreak havoc on tomato crops across West Africa. One of the most important vegetable crops in the world, tomatoes are produced by smallholder farmers in Feed the Future focus countries including Ghana, Senegal, and Mali. In 2012, the Tomato leafminer (*Tuta absoluta*) threatened the tomato crops of these smallholder farmers. Led by Virginia Tech, the Feed the Future Innovation Lab for Integrated Pest Management (IPM) responded by leveraging its large scientific network of expertise. The IPM Innovation Lab applies a systems approach to pest management that helps mitigate pest damage while reducing reliance on pesticides. The timeliness of IPM's response was of particular importance because West Africa had just received approval to export tomatoes to the United States.

The IPM Innovation Lab collaborated with African institutes and researchers to devise methods to manage and halt the expansion of the Tomato leafminer. Researchers discovered that the attack on plants was highest during flowering and fruiting stages and the predator ant species in Senegal, *Pachychondyla senareensis*, was a natural enemy of the leafminer. The collaborative effort also resulted in a global monitoring framework that is now tracking the spread of the pest and its impact on farmers. Past IPM Innovation Lab interventions such as the control of the

papaya mealybug in India have reaped economic benefits that have exceeded USAID's ten-year investment in the Lab.

#### Michigan State University Improves Cowpea Varieties in Senegal

Michigan State leads the Feed the Future Innovation Lab for Grain Legumes that is building on decades of USAID research investment to introduce new varieties of cowpeas to sub-Saharan Africa. These new varieties have higher yields and mature faster, providing essential nutrients when other household food supplies have been exhausted and farmers are waiting for the cereal harvest. Cowpeas are a staple food for many people who live in the dry, hot regions of Sub-Saharan Africa, so the improved varieties are serving as an important food source and providing a source of income through the sale of the edible cowpea pods. As of 2010, more than 40 percent of farmers receiving assistance have adopted the new cowpea varieties developed by the Innovation Lab. An economic impact analysis concluded that cowpea varietal improvement has been profitable in Senegal, estimating the value of net benefits at \$78.6 million, with an internal rate of return on investment of 17.9 percent.

# Peanut and Mycotoxin Innovation Lab at University of Georgia Develops Technology to Detect and Sort Contaminated Peanuts

The Peanut and Mycotoxin Innovation Lab, led by University of Georgia, has developed a groundbreaking dry blanching technology that helps peanut producers detect and sort aflatoxin-contaminated peanuts after light roasting. Aflatoxins are naturally occurring fungi that produce carcinogenic toxins causing severe health issues, especially in developing countries where aflatoxin levels are not well-regulated. Originally implemented in the Philippines, the dry blanching technique has opened up international export opportunities for Philippine processors to markets with strict aflatoxin standards.

In 2012, the technology was transferred to Ghana and Uganda and has been picked up by private industry. In Ghana, private food processing company CBA Foods launched a chocolate peanut spread. Demand was so great and exceeded supply that CBA Foods has since invested in a large-capacity grinding mill to keep up with sales. In Uganda, a new nutritious peanut cookie developed by Hometech Foods is selling about 1,000 packages of cookies and generating \$400 per week due to their ability to now screen for aflatoxin contamination.

One of the Lab's scientists, Dr. Anna Resurreccion, was a recipient of the *Institute of Food Technologists' 2013 W.K. Kellogg International Food Security Award and Lectureship* for her contribution to the development of aflatoxin-free peanut products. This new dry blanching technology has enormous potential to enable even the smallest peanut processors to reduce aflatoxin contamination in processed peanut products to levels consistent with international contaminant standards, representing greater market opportunities as well as offering new solutions for U.S. producers to reduce contamination. According to the Peanut and Mycotoxin

Innovation Lab, the U.S. peanut industry benefits by at least ten dollars for every dollar invested in peanut research through the Lab.

#### **Strengthening Research and Higher Education**

In 2010, then-Secretary of State Hilary Clinton launched the first Quadrennial Diplomacy and Development Review intended to provide a strategic framework and oversight for ensuring that U.S. development investments have the highest impact. The review pointed toward the need for more science and technology in U.S. development efforts. In the past four years, USAID has been meeting that mandate by steadily increasing the number of scientists and technical experts in the Agency, as well as hosting an increasing number of Fellows through the American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellowship, US State Department Jefferson Faculty Fellows, and Franklin Fellows Programs.

In FY2013, a USAID technical working group drafted the first research policy at USAID in twenty years. The policy provides principles and procedures to guide the review of USAID research proposals and the implementation of research-based grants/cooperative agreements. The Research Policy was released for public review early in FY2014 and covers the following five areas: 1) Research Standards, 2) Research Ethics, 3) Research Reporting, 4) Research Design, and 5) Support for Scientific and Technical Staff. Cross-cutting themes across these areas include key principles of quality, oversight, coordination, equity, and participation. Research ethics and research support are addressed as cross-cutting themes as well as key areas within the Research Policy. The development of a comprehensive USAID research policy highlights the importance of an approach to development based upon science and technology that reflects the Agency's commitment to developing principles and procedures to guide high-quality research for development investments.

U.S. universities represent key partners in this effort to build a stronger science and technology base at USAID. As part of the Agency's drive toward a more science and technology based approach to development, USAID has supported programs that strengthen institutions of research and higher education in developing countries through U.S. university partnerships with the public and private sectors. Over the past four years, USAID's Higher Education for Development program has sponsored the efforts of 41 U.S. universities operating in 23 countries with more than 90 participating institutions. Some of these universities include: Tulane University, Mississippi State University, University of Hawaii, California State University Fullerton, University of Texas at San Antonio, Tuskegee University, and several community colleges received Higher Education for Development awards to strengthen individual and institutional capacity in business, agriculture, health, governance, and the environment in countries such as Honduras, Ethiopia, Kenya, Senegal, and Uganda.

For decades, USAID has recognized and facilitated strong tertiary research and education linkages that have built human capital and advanced knowledge and innovation critical to

economic growth and national development. U.S. University Minority Serving Institutions (MSIs), including Asian American, Alaskan Native and Pacific Islander Serving Institutions (AANAPISIs), Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), and Predominantly Black Institutions (PBIs) have been instrumental in building human and institutional capacity in Africa, Asia, Latin America and the Caribbean. MSIs have helped accelerate Feed the Future results toward increasing food security and reducing extreme poverty as leads and partners on HED awards and Feed the Future Innovation Labs. For example, USAID's partnership through the Innovation Labs with Tuskegee University is benefitting horticulture in Ghana and nutrition in Nepal and Uganda; the University of Puerto Rico at Mayaguez is working to improve grain and legume value chains for the benefit of Haiti, Honduras, Guatemala, and Tanzania; and, the University of Hawaii is contributing to aquaculture and fisheries, horticulture, grains and legumes, and natural resource management that benefits four African countries and three Asian countries.

As the Agency has increased its investment in research and higher education strengthening, it has increased the number of programs associated with U.S. university partnerships. In FY 2013, USAID Administrator Dr. Rajiv Shah launched the Higher Education Solutions Network with university partners Massachusetts Institute of Technology (MIT), University of California-Berkeley, Michigan State University, Duke University, Texas A&M University, The College of William & Mary, and Makerere University in Uganda. In FY 2013, USAID also established Development Labs with these cornerstone university partners, investing \$137 million and leveraging an almost equal amount from universities and research institutions in the network of 100 partner institutions that reach across 38 countries.

Many of the HESN cornerstone partners have already made advances through their HESN Development Labs. Michigan State University, a Title XII University, has launched the HESN Global Center for Food Systems Innovation that is looking at innovative approaches to agricultural development through the lens of three Mega-Trends: climate change/population growth, urbanization, and workforce skills development. The Development Lab team at MIT has engaged students and the private sector in the U.S. and Ghana on the collaborative design of mini cassava graters. The College of William and Mary is working on an upgraded version of a development finance data portal (aiddata.org) that was launched at the Global Transparency Week in 2014. The portal update will make it possible for policymakers and practitioners to evaluate the availability of development resources by comparing data from over \$40 trillion in remittances, foreign direct investment, and 90 donor agencies. The data portal will also include advanced GIS that will allow USAID, researchers, and other users to work with geocoded data from HESN and other sources.

U.S. Title XII universities are building the capacity of individuals and institutions in Feed the Future partner countries to respond to agricultural challenges through fellowship programs such as the Borlaug Higher Education for Agricultural Research and Development (BHEARD) led by

Michigan State University, and the Borlaug Leadership Enhancement in Agriculture Program (LEAP) at UC Davis. Both programs are designed to support long-term training for scientists by increasing the quality of research of scientific professionals in developing countries so that they can be leaders in their fields of agriculture and related disciplines. The BHEARD program has a specific focus on strengthening the agricultural research capacity of strategic organizations identified by USAID field missions. The Borlaug U.S. Global Food Security Fellows Program at Purdue University supports food security-related research for American graduate students and hosts an annual Summer Institute for early-career graduate students to learn about global food security issues. Mentorship is an important aspect of all three programs, with U.S. university faculty contributing additional insight and support to ongoing research projects. BHEARD provides full funding to researchers in Feed the Future target fields to pursue graduate degrees. BHEARD's first cohort for the 2013-14 academic year placed 27 graduate students from Bangladesh, Cambodia, Ghana, Mozambique, and Uganda in 12 U.S. universities. Students from Mali, Malawi, and South Sudan joined a second cohort in 2014.

Daniel Ninsiima, of Makerere University's Agricultural Research Institute, is one of the BHEARD Fellows in this cohort pursuing his master's degree in telecommunications at Michigan State University. As part of his research at Makerere, Daniel will design applications and content that will provide audio in different Ugandan languages to reach farmers who are illiterate and who may speak one of Uganda's minority languages. Since more than half of Uganda's farmers have access to mobile phones, this technology is a new method of reaching farmers. At Michigan State University, Daniel is exposed to state-of-the-art research in his field, both in his department and in another USAID-funded program, the Michigan State Global Center for Food Systems Innovation. Daniel's work in this field in the short time he has been at Michigan State has brought him an invitation to participate in the Innovation Marketplace at TechCon 2013, sponsored by another USAID-funded program, the Resilient Africa Network. RAN is one of seven innovation labs under HESN. Another USAID fellowship program focused on mentoring the next generation of agricultural professionals is The African Women in Agricultural Research and Development (AWARD), a career-development program for highachieving women agricultural scientists across sub-Saharan Africa. The objective of the program is to refine the networking and technical skills of women scientists so that they can promote and prioritize the needs of women throughout the agricultural value chain.

The success of these programs can be measured in part by the demand at the country level. In the past three years, USAID Missions in Kenya, Tanzania, Mozambique, Ghana, Zambia, Bangladesh, Mali, Cambodia, Malawi, South Sudan, and Liberia have invested in the programs. The amount that Missions have contributed toward AWARD and BHEARD has increased every year (Figure 5).

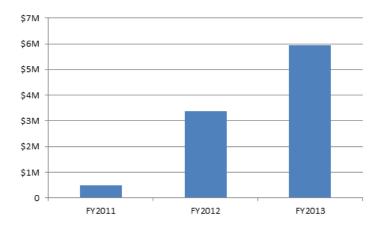


Figure 5. USAID Missions in focus countries buying in to BHEARD and AWARD by contributing additional funds

The Modernizing Extension and Advisory Services (MEAS) program implemented by a University of Illinois-led consortium supports development of efficient, effective, and sustainable rural extension, information, and advisory service systems. In many Feed the Future focus countries MEAS has completed a comprehensive examination of existing systems and provided recommendations on improvements. The program is validating and promoting new approaches to rural extension in partnership with a wide range of stakeholders including public, private, and civil society organizations. MEAS has completed several evaluations of rural extension approaches and is currently working on an evaluation of Farmer-to-Farmer extension practices.

MEAS is also pilot testing new extension tools. It is currently testing the use of a field-based ICT platform called the *Farmbook* developed by consortium member Catholic Relief Services. *Farmbook* is designed to enable field agents to assist farmers to manage the farm businesses more effectively and to quickly evaluate their productivity and profitability. Gender considerations are critical to modernizing rural extension in many countries and MEAS is a leader in addressing women's empowerment and issues of access to inputs and knowledge. MEAS has published a Technical Note on *Applying Gender Responsive Value-Chain Analysis in Extension and Advisory Services* and a Discussion Paper and Brief series *Reducing the Gender Gap in Agricultural Extension and Advisory Services*. The MEAS *Adaptation under the New Normal of Climate Change - implications for Extension and Advisory services* was one of the most watched webinars in the USAID Ag Sector Council monthly seminar, and a full discussion paper and brief was published in early 2014.

#### **Future Trends**

Extensive monitoring and evaluation of Feed the Future programs has demonstrated that significant progress is being made toward reducing poverty and improving nutrition. However,

more needs to be done. In FY 2014 and subsequent years, USAID will build upon its investments and scale up promising agricultural technologies and practices in Feed the Future focus countries. In addition, new investments in climate "smart" agriculture and a greater focus on nutrition-sensitive agriculture will increase the quantity and quality of nutritious crops with the goal of diet diversification and disease prevention. USAID and other USG agencies will build upon successful interagency collaboration under Feed the Future to join efforts of organizations such as the World Bank in developing an alliance for Climate Smart Agriculture. In the next five years, a focus on climate-smart agriculture, women's empowerment, and youth development will help strengthen the capacity of the population as a whole to respond and be resilient in the face of daunting challenges.

At USAID, the new model of development focuses not only on providing assistance, but building sustainability at the local level. Looking forward, USAID research developments will occur by applying the unique and valuable skill sets of a host of partners. One example is the partnership to eliminate coffee rust. With Texas A&M University in a lead role, partners are pooling efforts of the coffee industry, academia, and non-profit organizations to make a concerted effort to mitigate the economic threat that the plant disease poses to millions of Central Americans and others. It is one example of how, in the future, other breakthroughs will occur—by harnessing agricultural capacity and expertise using a multi-disciplinary and multi-stakeholder approach.

In collaboration with Title XII universities and other partners, USAID under the Feed the Future Initiative will continue to prioritize the training of future leaders. In FY2013, the number of short-term trainees totaled nearly 40,000, while the number of long-term trainees, including graduate students, totaled more than 400. This renewed emphasis on training through university, research institute and private sector partnerships will promote sustainable development in Feed the Future countries.

#### **BIFAD Guidance**

The Presidentially appointed Board for International Food and Agricultural Development (BIFAD) is providing valuable advice to USAID. BIFAD advises USAID on Title XII-related agriculture and higher education issues related to food insecurity in developing countries. The President appoints these board members, of whom at least four of seven represent the academic community. Current Board members include the Chair, Brady Deaton, Chancellor Emeritus of the University of Missouri; and five other members—Montana State University President Waded Cruzado; Marty McVey, McVey Investments; North Carolina A&T Chancellor Harold Martin; Purdue University Distinguished Professor Gebisa Ejeta; and Syracuse University Professor Catherine Bertini. Title XII of the Foreign Assistance Act established BIFAD in1975 in recognition of the critical role that U.S. land-grant institutions play in agricultural development, domestically and abroad.

The Board played a key role in FY2013 in working with USAID to implement the recommendations of the August 2012 BIFAD Review of the Collaborative Research Support Program (CRSP) Model. At the request of Administrator Shah, BIFAD also commissioned a study to recommend future directions in human and institutional capacity building. The findings from that study will be followed by an e-consultation in 2014 that will reach out to key stakeholders in the U.S., Africa, and Asia to further identify how universities can partner with the private sector and others to develop new approaches to human and institutional capacity building in the short-term that will lead to long-term impact. In addition to these priority studies, in FY2013 BIFAD convened two public sessions that focused on Title XII engagement in agricultural research and youth in development. Throughout the year, BIFAD members serve as "Ambassadors" to Feed the Future in speaking engagements in the U.S. and partner countries.

#### **BIFAD Response on the FY 2013 Title XII Report to Congress**

The Board for International Food and Agricultural Development (BIFAD) is pleased to comment on this Title XII Report to Congress for FY2013 (1 October 2012 to 30 September 2013). The U.S. Agency for International Development (USAID) has not only maintained its level of interaction with U.S. universities through a number of important traditional approaches described in the Report, but has established new avenues for working with universities to accomplish development goals. The Title XII Report to Congress continues to provide a level of detail on these interactions for consideration by Congress and BIFAD, started in FY2011, allowing for a much greater level of transparency than in Title XII Reports prior to FY2011. In the spirit of the new U.S. Government 'open data' policies, BIFAD calls upon USAID to make the full funding data available for concerning university partnerships and other data in future reports. This Title XII report to Congress has a four-year perspective, with this response offering a longer-term perspective.

BIFAD applauds USAID for steps taken to establish the Feed the Future Food Security Innovation Center (FSIC). BIFAD was pleased to work with USAID to evaluate the Collaborative Research Support Program (CRSP) during FY2012, and commends changes that the Agency has taken to address the spirit of the recommendations. The increased funding for Innovation Labs is noted and we look forward to the anticipated establishment of more Innovation Labs in FY2014. The involvement of U.S. university partners in collaborative research and human capacity development in these Innovation Labs is particularly noteworthy.

USAID significantly increased funding to support research, education, and capacity building for agriculture, food and nutrition in the last few years, with many of these commitments now coming to fruition. We concur with USAID and Administrator Shah's assessment that the Title XII university community provides unique capabilities to aid Feed the Future in meeting its development goals. BIFAD anticipates monitoring progress towards those goals in future Title XII Reports to Congress, especially related to InnovATE and MEAS Programs. The establishment of the FSIC in the Bureau of Food Security in FY2012 is an accomplishment that

offers great promise in facilitating synergy in research efforts among the Title XII university community, the international research centers and private sector. BIFAD supports this initiative and will be particularly interested in assessing this effort in the future.

USAID has also engaged U.S. universities in helping build human capacity for science and leadership in selected developing countries through the Borlaug Leadership Enhancement in Agriculture Productivity (LEAP) Program, the Borlaug Higher Education for Agricultural Research for Development (BHEARD) and the U.S. Borlaug Fellows Program. These programs are excellent in intent and management and are consistent with the aims of the Title XII legislation. BIFAD was concerned that the current funding levels for these programs are likely insufficient to meet the needs for trained scientific leaders and researchers in developing countries in either the near-term or the long-term. BIFAD is particularly pleased with the increase in Mission funding for BHEARD and the African Women in Agricultural Research and Development (AWARD) Programs. The funding level remains a serious concern of BIFAD because it represents a clear national need of the U.S. BIFAD will continue to work with USAID to address this issue in the future.

The FY2013 Title XII Report describes the Agency's response to the Quadrennial Diplomacy and Development Review that calls for more science and technology in U.S. development efforts. BIFAD notes the increased number of scientists and technical experts hired by the agency and further applauds involvement of an increasing number of science fellows through various programs. BIFAD applauds the Agency for developing its Research Policy. The terms of this policy are especially important to university partners who are steeped in the peer review process and committed to open access to research data. We look forward to implementation of the policy and the impact(s) that USAID's policy may have on relationships with universities and other partners. BIFAD will monitor closely this implementation process.

The FY2011 Title XII Report provided greater detail than the FY2013 Report on U.S. university involvement in support of human and institutional capacity development, collaborative research on key problems (CRSP Programs), international agriculture science networks, research programs, and other special programs. For the first time, the FY2011 Report provided information on 'sub-awards' to U.S. universities. BIFAD notes the absence of such information in the FY2013 Report and encourages inclusion of this level of detail in future Reports or making this data available to interested parties by publishing it on a website. This information would allow for greater transparency when evaluating involvement of U.S. universities in USAID programs related to food, nutrition and agricultural development.

In FY2011, BIFAD was challenged by Administrator Shah to play a more active role in engaging U.S. universities as "ambassadors" for the Feed the Future approach. BIFAD welcomes these changes and has accepted the Administrator's challenge. During FY2013, BIFAD members attended USAID sponsored or hosted meetings related to agricultural research and innovation. While in these countries (for example, Tanzania, Pakistan and Nepal) BIFAD members visited

not only with USAID Mission staff, but visited various Feed the Future projects. These outreach activities help inform BIFAD and allowed us to offer better counsel to USAID and the Administrator. We look forward to continuing interaction with the Administrator on these topics.

BIFAD commends USAID for increasing funding for food and agricultural development and for augmenting involvement of U.S. universities in these development activities. Some of the more recently funded activities, such as the Modernizing Extension Advisory Services (MEAS), have great potential and we look forward to monitoring their expected successes in the future. BIFAD thanks USAID for the excellent efforts and the opportunity to help strengthen U.S. university participation in the noble goals of helping foster food security worldwide.

### **APPENDIX**

Table 1. Feed the Future Innovation Labs within the Feed the Future Food Security Innovation Center

| Feed the Future Food<br>Security Innovation Center<br>Program Areas   | Feed the Future Innovation Lab, Implementing U.S. University Leads   | Feed the Future Innovation Lab U.S. University Partners   |
|---|--|---|
| 1. Research on Climate Resilient Cereals is helping smallholder farmers adapt to climate change by developing new cereal varieties that have a higher tolerance to drought and deliver higher yields. | Applied Wheat Genomics, Kansas State University Climate Resilient Millet, University of California, Davis Climate Resilient Sorghum, University of Georgia Climate Resilient Wheat, Washington State University Sorghum and Millet, Kansas State | Cornell University  Kansas State  Purdue, Texas A&M, West Texas A&M, Virginia Tech  |
| Research on Legume     Productivity is improving household incomes and  | University  Climate Resilient Beans, Penn State University  Climate Resilient Chickpea,  | University of Missouri-Columbia, North Dakota State University, University of Puerto Rico Florida International University, University of Southern          |
| nutrition, especially for women, by developing disease-resistant and stress-tolerant legume   | University of California, Davis  Climate Resilient Cowpea, University of California, Riverside  Grain Legumes, Michigan State  | California  Iowa State, Kansas State, North Dakota State, UC  |
| varieties and improving markets and post-harvest processing.  | University  Peanut & Mycotoxin,  | Riverside, University of Hawaii-Manoa, University of Illinois, University of Puerto Rico-Mayaguez  Cornell, Mississippi State, New Mexico State University, |
|   | University of Georgia  | North Carolina State, Texas A&M, University of Connecticut, University of Florida, Virginia Tech, Washington University                                     |
|   | Soybean Value Chain Research,<br>University of Illinois-Urbana,<br>Champaign   | Delaware State, Mississippi State, University of Georgia,<br>University of Maryland-Eastern Shore, University of<br>Missouri-Columbia                       |
| 3. Advanced Approaches to Combat Pests and  | Genomics to Improve Poultry, University of California, Davis   | Iowa State, University of Delaware  |
| <b>Diseases</b> is developing new vaccines and techniques to improve crop and animal disease resistance.  | Rift Valley Fever Control in<br>Agriculture, University of Texas, El<br>Paso   | University of Texas, Galveston  |

| Feed the Future Food<br>Security Innovation Center<br>Program Areas   | Feed the Future Innovation Lab, Implementing Lead   | Feed the Future Innovation Lab U.S. University Partners   |
|---|---|---|
| 4. Research on Nutritious and Safe Foods is preventing undernutrition, especially in women and children, by improving the | Adapting Livestock Systems to Climate Change Colorado State University  Aquaculture and Fisheries | Arizona State, CUNY City College of New York, Emory, Michigan State, South Dakota State, Syracuse, Texas A&M, UC-Davis, University of Vermont, University of Virginia, Utah State, Virginia Tech Alabama A&M, Auburn, North Carolina State, Purdue, |
| children, by improving the production and processing of safe and nutritious foods such as fruits, vegetables, meat, fish, | Oregon State University   | University of Arizona, University of Arkansas-Pine Bluff, University of Connecticut-Avery Point, University of Georgia, University of Hawaii-Hilo, University of Michigan, University of Rhode Island, Virginia Tech                                |
| dairy, and legumes.   | Food Processing and Post-Harvest<br>Handling<br>Purdue University                                 | North Carolina A&T State University   |
|   | Horticulture University of California-Davis   | Ohio State, Michigan State University, North Carolina A&T State, North Carolina State, Penn State, Purdue, Rutgers, Tuskegee, University of Florida, University of Georgia, University of Hawaii-Manoa, University of Wisconsin-Madison, Texas A&M  |
|   | Nutrition in Africa & Asia Tufts University   | Harvard, John Hopkins, Purdue, University of Georgia, Tuskegee  |
|   | Reduction of Post-Harvest Loss Kansas State University  | Oklahoma State, University of Illinois  |
| 5. Sustainable Intensification is improving smallholder farmer resilience through the                                     | *Sustainable Agriculture and<br>Natural Resources Management<br>(SANREM),<br>Virginia Tech        | Kansas State, North Carolina A&T State, Penn State,<br>University of Hawaii-Manoa, University of Tennessee,<br>University of Wyoming  |
| integration of technologies<br>that aid in agricultural<br>intensification and  | Integrated Pest Management, Virginia Tech   | Arizona State, Clemson, Fort Valley State, Kansas State, Michigan State, North Carolina State, Ohio State, Penn State, Purdue, UC-Davis, Virginia State, Washington State   |
| diversification.  | Small-scale Irrigation, Texas A&M University  | North Carolina A&T State  |
| 6. Markets and Policy Research and Support is increasing inclusive  | Assets and Market Access (AMA) University of California-Davis                                     | Cornell, George Washington University, Harvard, Michigan State, Ohio State, Stanford, UC-Berkeley, UCLA, UC-San Diego, University of Colorado, Yale   |
| agricultural growth with improved policies and markets.   | Food Security Policy Michigan State University  |   |

| Feed the Future Food<br>Security Innovation Center<br>Program Areas | Feed the Future Innovation Lab, Implementing Lead | Feed the Future Innovation Lab U.S. University Partners     |
|---|---|---|
| 7. Human and Institutional  | Borlaug Higher Education for                      |   |
| Capacity Development**  | Agricultural Research and                         |   |
| is strengthening strategic  | Development (BHEARD)                              |   |
| elements in the   | Michigan State University                         |   |
| agricultural innovation   | Modernizing Extension and                         | Cornell, Michigan State, North Carolina A&T State, UC-      |
| system.   | Advisory Services (MEAS)                          | Davis, University of Florida, University of Illinois-Urbana |
|   | University of Illinois, Urbana-                   | Champaign   |
| **The programs under this   | Champaign   |   |
| program element of the  | Innovation for Agricultural Training              | Penn State, University of Florida, Tuskegee                 |
| FSIC are not innovation   | and Education (innovATE)                          |   |
| labs. More information on   | Virginia Tech                                     |   |
| these HICD programs can   | Borlaug Leadership Enhancement in                 |   |
| be found in the Higher  | Agriculture Program                               |   |
| Education section of this   | University of California, Davis                   |   |
| report.   | US Global Food Security Fellows                   |   |
|   | Program   |   |
|   | Purdue University                                 |   |

<sup>\*</sup>SANREM ended in FY2014 and USAID has announced a new Innovation Lab for Sustainable Intensification at Kansas State University Universities highlighted in blue are Minority Serving Institutions

Table 2. Direct Awards to U.S. Universities in the Agriculture Program Area FY 2010, FY 2011, FY 2012 & FY 2013

| Lead Title XII Partner                                  | Project Title / Award  | Life of Project<br>(Start and End Dates) | Geographic Focus                                     |
|---|--|--|--|
| American Council on Education                           | Higher Education for Development (HED)   | 9/28/2005- 9/30/2010                     | Global   |
| Association of Public and Landgrant Universities (APLU) | Assessments and Opportunities for Higher Education in Africa, AID-OAA-A-11-00017 | 8/12/2011-8/11/2012                      | Africa   |
| APLU  | EDU-University Partnership Focus Meeting, AID-497-O-11-00079                     | 8/18/2011-8/18/2011                      | Indonesia  |
| Colorado State University                               | Adapting Livestock Systems to Climate Change AID-OAA-L-10-00001                  | 4/20/2010-9/30/2015                      | Global   |
| Colorado State University                               | Adapting Livestock Systems to Climate Change 688-CA-A-00-10-00131                | 8/1/2010-9/30/2013                       | Mali   |
| Cornell University                                      | Agricultural Biotechnology Support Project II GDG-A-00-02-00017                  | 9/30/2002-9/29/2013                      | Global/India, Indonesia,<br>Philippines & Bangladesh |
| Cornell University                                      | Agricultural Biotechnology Support Project II 617-A-00-04-00012                  | 8/18/2004-8/18/2012                      | Uganda   |
| Cornell University                                      | Agricultural Biotechnology Support Project II AID-388-LA-13-00005                | 9/27/2013-9/26/2015                      | Bangladesh   |
| Cornell University                                      | Agricultural Biotechnology Support Project II AID-617-LA-11-00002                | 8/31/2011-8/30/2016                      | Uganda   |
| Cornell University                                      | Agriculture Education and Innovation Systems Project (AEISP) AID-386-A-11-00002  | 12/9/2010-9/30/2014                      | India  |
| Florida International University                        | Rwanda Integrated Water Security Program (RIWSP) AID-696-LA-11-00001             | 5/18/2011-5/17/2016                      | Rwanda   |
| Georgetown University                                   | Scholarships for Education and Economic Development                              | 2008-2012                                | Guatemala  |
| Kansas State University                                 | Feed the Future Innovation Lab-Climate Resistant Wheat AID-OAA-A-13-00051        | 8/15/2013-8/14/2018                      | Global   |
| Kansas State University                                 | Feed the Future Innovation Lab- Sorghum & Millet                                 | 7/22/2013-7/21/2018                      | Global   |
| Michigan State University                               | (DGP-AA) AID-OAA-LA-10-00007   | 10/1/2010-9/30/2013                      | Global   |
| Michigan State University                               | (FS III-AA) Food Security and Climate Change: AID-OAA-LA-11-00010                | 9/30/2011-9/29/2014                      | Global   |
| Michigan State University                               | (FS III-AA) 611-690-A-00-03-0024   | 10/9/2009-9/30/2010                      | Zambia   |
| Michigan State University                               | (FS III-AA) 656-A-00-04-00058  | 12/21/2009-11/30/2012                    | Mozambique, Mali                                     |
| Michigan State University                               | (FS III-AA) 688-A-00-09-00006  | 12/1/2008-9/30/2013                      |  |
| Michigan State University                               | (FS III-AA) AID-442-LA-12-00001  | 9/29/2012-9/28/2016                      | Cambodia   |

| Lead Title XII Partner   | Project Title / Award  | Life of Project<br>(Start and End Dates) | Geographic Focus |
|--|--|--|------------------|
| Michigan State University  | (FS III-AA) AID-656-LA-12-00002  | 10/1/2012-9/30/2017                      | Mozambique       |
| Michigan State University  | (FS III-AA) RLA-A-00-07-00042  | 9/24/2007-3/31/2011                      | Regional         |
| Michigan State University  | (FS-III-AA) 611-A-00-11-00001  | 10/21/2010-10/20/2015                    | Zambia           |
| Michigan State University  | Afrobarometer Support RLA-G-00-04-00062  | 8/11/2004-12/31/2015                     | Africa           |
| Michigan State University  | Dry Grain Pulses (DGP) EDH-A-00-07-00005   | 9/19/2007-9/28/2012                      | Global           |
| Michigan State University  | Food Security III (FS III) GDG-A-00-02-00021   | 9/30/2002-9/29/2012                      | Global           |
| Michigan State University  | HESN Global Food Security Innovation Center (GFSIC) AID-OAA-A-13-00006   | 11/8/2013-9/30/2017                      | Global           |
| Midwest Universities<br>Consortium for International<br>Activities | Value Chain Training for Agricultural Technical Schools (VCT/ATS) 263-A-00-08-00030                                | 4/1/2008-6/30/2013                       | Egypt            |
| New Mexico State University  | Afghanistan Water, Agriculture and Technology Transfer (AWATT) 306-A-00-08-00506                                   | 3/3/2008-3/2/2011                        | Afghanistan      |
| Ohio State University  | Tanzania Agricultural Research and Capacity Building Project (OSO-Sokoine Cooperative Agreement) 621-A-00-11-00009 | 3/1/2011-2/29/2016                       | Tanzania         |
| Oregon State University  | Aquaculture & Fisheries (AquaFish) EPP-A-00-06-00012   | 9/30/2006-9/29/2012                      | Global           |
| Oregon State University  | (AquaFish-AA) 688-A-00-07-00044  | 9/30/2010-12/31/2010                     | Mali             |
| Oregon State University  | (AquaFish-AA) AID-OAA-LA-10-00006  | 10/1/2010-9/30/2013                      | Global           |
| Pennsylvania State University                                      | Feed the Future Innovation Lab-Climate Resilient Beans AID-OAA-A-13-00077  | 9/23/2013-9/22/2018                      | Global           |
| Prairie View A & M University                                      | Ethiopia Sheep and Goat Productivity Improvement Program (ESGPIP) 663-A-00-05-00441                                | 9/22/2005-9/30/2012                      | Ethiopia         |
| Purdue University  | Advancing Afghan Agriculture Alliance (A4) 306-A-00-07-00509   | 3/14/2007-3/31/2011                      | Afghanistan      |
| Purdue University  | DIV Fixed Obligation Award (DIV FOG # 12) AID-OAA-G-11-00056   | 9/9/2011-12/7/2012                       | Afghanistan      |
| Purdue University  | Strengthening Afghanistan Agricultural Faculties (SAAF) 306-A-00-11-00516  | 3/24/2011-3/24/2016                      | Afghanistan      |
| Texas A&M  | John Garang Memorial University of Science and technology AID-688-A-11-00001                                       | 9/30/2011-3/31/2014                      | South Sudan      |
| Texas A&M  | Ethiopian Sanitary and Phytosanitary Standards- Livestock & Meat Marketing Program (SPS-LMM) 663-A-00-05-00437     | 8/19/2005-9/30/2011                      | Ethiopia         |

| Lead Title XII Partner                         | Project Title / Award   | Life of Project<br>(Start and End Dates) | Geographic Focus      |
|--|---|--|-----------------------|
| Texas A&M                                      | Sustaining Partnerships in Rural Enterprise and Agribusiness Development (SPREAD) 696-A-00-06-00157                     | 9/29/2006-9/28/2011                      | Rwanda                |
| Tufts University                               | Pastoralist Livelihoods Initiative (PLI) 663-A-00-05-00449  | 9/30/2005-3/31/2013                      | Ethiopia              |
| Tufts University                               | Nutrition – Africa 688-GA-G-00-11-00028-00  | 12/1/2010-1/15/2011                      | Mali                  |
| Tufts University                               | Nutrition – Africa AID-OAA-L-10-00006   | 10/4/2010-10/3/2015                      | Regional              |
| Tufts University                               | Nutrition – Asia AID-OAA-L-10-00005   | 10/4/2010-10/3/2015                      | Regional              |
| University of California –<br>Davis (UC Davis) | Pastoral Engagement, Adaptation, and Capacity Enhancement (PEACE) 306-A-00-06-00521                                     | 7/1/2006-9/30/2012                       | Afghanistan           |
| UC Davis                                       | Horticulture (HORT) EPP-A-00-09-00004   | 10/1/2009-9/30/2014                      | Global                |
| UC Davis                                       | (HORT) AID-OAA-LA-12-00008  | 9/30/2012-3/31/2013                      | Central America       |
| UC Davis                                       | Abiotic Stress Tolerant Millet for Africa and South Asia, AID-OAA-A-12-00054  | 9/21/2012-9/21/2016                      | Africa and South Asia |
| UC Davis                                       | Assets and Market Access (AMA) AID-OAA-L-12-00001   | 4/20/2012-4/19/2017                      | Global                |
| UC Davis                                       | Feed the Future Innovation Lab-Poultry Genomics AID-OAA-A-13-00080  | 9/27/2013-9/26/2018                      | Global                |
| University of Florida                          | Strengthening Environmental Management in Madre de Dios, Peru and Pando, Bolivia (ICAA Regional ENV) AID-OAA-A-11-00060 | 9/30/2011-9/29/2016                      | Peru & Bolivia        |
| University of Florida                          | Strengthening Environmental Management in the Brazilian Southwestern Amazon (MABE) 512-A-00-08-00003                    | 9/1/2008-9/30/2011                       | Brazil                |
| University of Florida                          | Trilateral Cooperation U.S. – Brazil – Mozambique AID-512-A-11-00001  | 1/1/2011-12/31/2014                      | Brazil-Mozambique     |
| University of Georgia                          | Feed the Future Innovation Lab-Peanuts & Mycotoxins AID-OAA-A-13-00044  | 8/26/2013-8/25/2018                      | Global                |
| University of Georgia                          | Peanut II ECG-A-00-07-00001   | 7/31/2007-7/30/2012                      | Global                |
| University of Illinois                         | Modernizing Extension and Advisory Services (ME&AS) AID-OAA-L-10-00003  | 9/15/2010-9/14/2015                      | Global                |
| University of Illinois                         | (ME&AS-AA ) AID-176-LA-13-00003   | 7/18/2013-7/17/2018                      | Tajikistan            |
| University of Nebraska                         | Sorghum, Millet, and Other Small Grains (SMOG) EPP-A-00-06-00016  | 9/30/2006-9/29/2012                      | Global                |
| University of Nebraska                         | (SMOG-AA) 688-G-00-07-00043   | 4/8/2010-9/30/2012                       | Mali                  |

| Lead Title XII Partner                            | Project Title / Award   | Life of Project<br>(Start and End Dates)                        | Geographic Focus              |
|---|---|---|-------------------------------|
| University of Nebraska                            | (SMOG-AA) AID-OAA-LA-10-00009   | 10/1/2010-9/30/2013   | Global                        |
| University of North Carolina-<br>Chapel Hill      | Measure Evaluation Phase III  | 8/15/2008-2/14/2015   | Guatemala and Liberia         |
| University of Rhode Island                        | Collaborative Management for a Sustainable Fisheries Future in Senegal (COMFISH) AID-685-A-00-11-00059  | 2/14/2011-9/30/2016   | Senegal                       |
| University of Rhode Island                        | Integrated Coastal and Fisheries Governance ( ICFG) Associate CA 641-A-00-09-00036  | 9/15/2009-9/14/2013   | Ghana                         |
| University of Texas – El Paso                     | Feed the Future Innovation Lab-Livestock Vaccines AID-OAA-A-13-00084  | 9/27/2013-9/26/2018   | Africa                        |
| University of Washington                          | APS Innovations in Gender Equality (IGE) Household Food Security Program III  |   | Worldwide                     |
| University of Wisconsin                           | Assets & Market Access (AMA) EDH-A-00-06-00003  | 9/30/2006-9/29/2011   | Global                        |
| University of Wisconsin                           | (AMA- AA/Food Security) AEG-A-00-08-00008   | 9/30/2008-9/29/2013   | Africa                        |
| University of Wisconsin                           | (AMA-AA/MCC) EDH-A-00-07-00003  | 5/30/2007-2/11/2012   | Nicaragua                     |
| Virginia Polytechnic Institute<br>(Virginia Tech) | Integrated Pest Management (IPM) EPP-A-00-04-00016  | 9/30/2004-9/30/2014   | Global                        |
| Virginia Tech                                     | (IPM-AA) 688-A-00-10-00015  | 1/1/2010-12/31/2012   | Mali, Nepal                   |
| Virginia Tech                                     | (IPM-AA) AID-367-C-13-00004   | 2/26/2013-TBD   |                               |
| Virginia Tech<br>Virginia Tech                    | (IPM-AA) AID-OAA-LA-10-00008 Sustainable Agriculture and Natural Resource Management (SANREM) EPP-A-00-04-00013   | 9/30/2010-9/30/2013<br>9/30/2004-9/30/2014                      | Indonesia<br>Global           |
| Virginia Tech<br>Virginia Tech<br>Virginia Tech   | (SANREM-AA) AID-663-LA-11-00002 Education and Research (ERA) 685-A-00-10-00194 Modernizing Agricultural Education and Training System (innovATE) AID-OAA-L-12-00002 | 3/4/2011-9/30/2012<br>9/1/2010-9/30/2015<br>9/30/2012-9/29/2017 | Ethiopia<br>Senegal<br>Global |
| Washington State University                       | Development of Heat Tolerant Wheat AID-OAA-A-13-00008   | 3/19/2013-3/18/2018   | Global                        |

Source: Based on FY 2010, FY 2011, FY 2012 and FY 2013 Obligations Data from USAID Phoenix Viewer Reports compiled by BFS/BIFAD. The U.S. universities that are highlighted in blue are Minority Serving Institutions (MSIs).

Table 3. Direct Awards to U.S. Universities in Agriculture-Related Program Areas FY 2010, FY 2011, FY 2012 & FY 2013 **HED (Higher Education Programming), ENV (Environment Programming)** 

| Lead Title XII Partner                                   | Project Title / Award / Program Area: ENV (Environment), HED (Higher Education) | Life of Project (Start and<br>End Dates) | Geographic Focus  |
|--|---|--|---|
| Alabama Agricultural Mechanical<br>University            | Textbooks and Learning Materials Program RLA-A-00-09-00035, HED                 | 9/01/2009-8/131/2012                     | Ethiopia, Ghana,<br>Malawi, Senegal,<br>Tanzania, S. Africa |
| American Council on Education                            | Higher Education for Development (HED) AEG-A-00-05-00007, HED                   | 9/28/2005-9/29/2015                      | Global  |
| American University                                      | GS - AID-391-G-00-09-01124, HED   |  |   |
| Arizona State University                                 | Higher Engineering Education Alliance Program (HEEAP) AID-486-A-10-00010, HED   | 6/22/2010-2/25/2014                      | Vietnam   |
| Arizona State University                                 | Vocational Training for Clean Energy (VOC TEC) AID-OAA-L-11-00005, HED          | 4/28/2011-4/26/2016                      | Global  |
| Arizona State University                                 | Vocational Training for Clean Energy (VOC TEC) AID-492-LA-12-00002, HED         |  | Global  |
| Association of Public and Land-grant Universities (APLU) | AID-OAA-A-11-00017, HED   | 8/15/2011-8/31/2013                      |   |
| Boston University  | African Presidential Archives and Research Center AID-OAA-A-10-00004, HED       |  | Africa  |
| College of William & Mary                                | Higher Education Solutions Network AID-OAA-A-12-00096, HED                      |  | Global  |
| Colorado State University                                | AEG Program SO - 688-CA-A-00-10-00131, ENV                                      | 8/1/2010-9/30/2013                       | Africa Regional, Mali                                       |
| Columbia University                                      | Global Climate Research, AID-OAA-A-11-00011, ENV                                | 7/27/2012-7/26/2013                      | Global  |
| Columbia University                                      | Earth Institute, AID-519-A-12-00002, ENV  |  | El Salvador   |
| Columbia University                                      | Micro-Solar Utilities for Small-scale Irrigation AID-OAA-A-13-00063, ENV        | 10/01/2013-9/30/2015                     | Senegal   |
| Columbia University                                      | Adaptation to Climate Risks in Indonesia, AID-497-A-11-00011, HED               | 7/8/2011-9/30/2014                       | Indonesia   |
| Columbia University                                      | Strengthening Indonesia's Climate Change Mitigation AID-497-A-12-00009, HED     | 3/20/2012-12/31/2015                     | Indonesia   |
| Columbia University                                      | School Action for Innovation in Science (SAInS) AID-497-A-13-00001, HED         | 12/01/2012-11/30/2015                    | Indonesia   |
| Columbia University                                      | 517-A-00-10-00103, HED  | 11/23/2009-11/22/2011                    | Dominican Republic  |
| Cornell University                                       | Global Partnership for Afghanistan (GPFA) 306-A-00-06-00531, HED                | 11/07/2006-12/31/2009                    | Afghanistan   |
| Duke University  | Higher Education Solutions Network AID-OAA-A-13-00004, HED-ENV                  | 11/15/2012-9/10/2015                     | Global  |
| Earth University   | Educational Infrastructure AID-ASHA-A-12-00003, AID-ASHA-G-11-00022, HED        |  | Costa Rica  |

| Lead Title XII Partner                      | Project Title / Award / Program Area: ENV (Environment), HED (Higher Education)                                  | Life of Project (Start and<br>End Dates) | Geographic Focus                      |
|---|--|--|---------------------------------------|
|   |  |  | _                                     |
| Florida International University            | Integrated Natural Resources Management-Watersheds, GO - AID-114-LA-10-00004, ENV                                |  |                                       |
| Georgetown University                       | Scholarships for Education and Economic Development Program (SEED) RLA-A-00-09-00004, HED                        | 12/22/2008-12/21/2015                    | Central America,<br>Mexico, Caribbean |
| Georgia State University                    | Dual Degree Masters Program in Education 497-A-00-10-00013, HED  | 1/15/2010-6/30/2014                      | Sudan                                 |
| Gonzaga University                          | Construction of Library Information Technology Center AID-ASHA-G-11-00011, HED                                   |  | South Sudan                           |
| Harvard University                          | Inter-University Partnerships GS - AID-497-A-11-00017, GS - AID-497-A-11-00002, HED                              |  | Asia Regional                         |
| Indiana University                          | Advancement and Development through Entrepreneurship Programs and Training (ADEPT) AID-486-A-13-00010, HED       | 9/30/2013-10/15/2016                     | Burma                                 |
| Johns Hopkins University                    | GO - AID-486-A-13-00012, GO - AID-ASHA-G-10-00010, GO - AID-ASHA-G-10/11/12/13, HED                              |  | Burma, China, Global                  |
| Kansas State University                     | Corporate Social Responsibility GO - AID-620-G-00-09-00007, HED  | 9/14/2010-4/28/2012                      | Nigeria                               |
| Massachusetts Institute of Technology (MIT) | Higher Education Solutions Network (HESN) AID-OAA-A-12-00095, HED  | 10/1/2012-9/30/2017                      |                                       |
| Michigan State University                   | Higher Education Solutions Network (HESN) GO - AID-OAA-A-13-00006, HED   |  | Global                                |
| Ohio State University                       | M.A. Dual Degree Program in Education AID-497-G-12-00004, HED  | 9/14/2012-12/31/2014                     | Indonesia                             |
| Oregon State University                     | University Partnership Program AID-497-A-13-00006, ENV   | 12/14/2012-12/13/2015                    | Indonesia                             |
| Purdue University                           | Afghan Capacity Building SO - 306-A-00-07-00509-00, ENV  | 9/14/2006- 3/31/2011                     | Afghanistan                           |
| Rutgers University                          | University Partnership Program: Promoting Sustainable Forest Management and Biodiversity AID-497-A-13-00005, ENV | 12/1/2012-11/30/2015                     | Indonesia                             |
| San Jose State University                   | International Consortium to strengthen Vietnam's Higher Education Capacity GO - AID-486-A-12-00011, HED          | 10/1/2012-9/30/2015                      | Vietnam                               |
| Texas A&M                                   | University Partnership Program AID-497-A-11-00003, HED   | 11/04/2010-03/31/2014                    | Indonesia                             |
| Texas A&M                                   | John Garang Memorial University of Science and Technology (JG-MUST) AID-668-A-11-00001, HED                      | 9/30/2011-3/31/2015                      | South Sudan                           |
| Texas A&M                                   | Higher Education Solutions Network (HESN) AID-OAA-A-13-00003, HED  |  |                                       |
| University of Arizona                       | Vocation University Leadership and Innovation Institute (VULII) AID-486-A-12-00005, HED                          | 10/01/2012-9/30/2015                     | Vietnam                               |

| Lead Title XII Partner                                 | Project Title / Award / Program Area: ENV (Environment), HED (Higher Education)  | Life of Project (Start and<br>End Dates)    | Geographic Focus                         |
|--|--|---|--|
| University of California-Berkeley                      | Higher Education Solutions Network (HESN) AID-OAA-A-13-0003 / AID-OAA-A-12-00011, HED                                      |   |  |
| University of California-LA (UCLA)                     | 497-A-00-10-00008, HED   | 12/23/2009-12/22/2012                       | Indonesia                                |
| University of Colorado-Boulder                         | Clean Energy and Adaptation Glacier Melt Research AID-OAA-A-11-00045, ENV  | 9/30/2002-9/29/2013                         | Asia Regional                            |
| University of Colorado-Denver                          | University Partnership Program AID-497-A-13-00002, HED   | 12/07/2012-12/06/2015                       | Indonesia                                |
| University of Florida                                  | Initiative for Conservation in the Andean Amazon (ICAA) AID-OAA-A-11-00060, ENV  | 9/30/2011-9/29/2016                         | Brazil, Latin<br>America, S. America     |
| University of Georgia                                  | Energy Grand Challenge AID-OAA-A-13-00066, ENV   | 12/03/2013-12/02/2016                       | Global                                   |
| University of Massachusetts                            | Higher Education Project, GS - AID-306-A-00-11-00515, HED  | 2/23/2011- 2/28/2014                        | Afghanistan                              |
| University of Nevada-Reno                              | United for Lake Atitlan Project AID-520-A-12-00001, ENV  | 02/06/2012-9/30/2014                        | Guatemala                                |
| University of North Carolina-Asheville                 | AID-497-A-11-00016, HED  | 7/22/2011-7/21/2014                         | Indonesia                                |
| University of Rhode Island                             | Coastal Fisheries in the Gambia and Senegal 624-A-00-11-00059, ENV   | 05/01/2009-4/30/2014                        | Gambia, Senegal                          |
| University of Rhode Island                             | The Collaborative Management for a Sustainable Fisheries Future (COMFISH) 685-A-00-11-00059, ENV                           | 2/14/2011-9/30/2016                         | Ghana, Senegal,<br>Tanzania, Philippines |
| University of Santa Cruz                               | University Partnerships Program GS - AID-497-A-11-00016, HED   | 7/22/2011-7/21/2014                         | Indonesia                                |
| University of Southern California                      | US-Indonesian Geothermal Education Capacity Building GS - AID-497-A-12-00003, ENV  |   | Indonesia                                |
| University of Tennessee                                | Global Development Alliance: Digital Library Installation for HED Institutions in Africa AID-OAA-A-11-00018, HED           | 8/26/2011-8/25/2013                         | Africa                                   |
| University of Texas-El Paso                            | Enhancing Behavior Change through Conservation Programs AID-497-A-12-00008, HED  | 3/15/2012-3/31/2015                         | Indonesia                                |
| University of Washington                               | Advancing Democracy and Promoting Transformations with Information Technology (ADAPT-                                      | 9/30/2013-10/15/2015                        | Burma                                    |
| University of Wisconsin<br>Washington State University | IT) AID-486-A-13-00011, HED<br>AMA Food Security AID-AEG-A-00-08-00008<br>Afghan eQuality Alliances 306-A-00-06-00524, HED | 9/30/2008- 9/29/2013<br>6/16/2006-2/28/2011 | Global<br>Afghanistan                    |
| Washington State University                            | University Partnership Program—high-value food crops in Indonesia AID-497-A-13-00006, HED                                  | 13/16/2012-3/31/2015                        | Indonesia                                |

Source: Based on FY 2010, FY 2011, FY 2012 and FY 2013 Obligations Data from USAID Phoenix Viewer Reports. The U.S. universities that are highlighted in blue are Minority Serving Institutions.