



# Title XII Report to Congress FY 2014

April 2016

This report is submitted to Congress pursuant to section 300 of Title XII of the Foreign Assistance Act of 1961, as amended.



## LETTER FROM THE ADMINISTRATOR

I am pleased to present the *U.S. Agency for International Development (USAID) Title XII Report for FY 2014*. The report describes the coordinated effort made in Fiscal Year 2014 to collaborate with Title XII universities, the Board for International Food and Agricultural Development (BIFAD),<sup>1</sup> and other critical partners to craft and implement a strategic approach to university engagement in service of international development. USAID is deeply committed to working with the university community, and our investments reflect how much we value its contributions.

In FY 2014, USAID increased its funding to Title XII universities operating in Feed the Future, New Alliance for Food Security and Nutrition, and other USAID partner countries. In total, we provided more than \$365 million to Title XII schools, which accounts for approximately 78 percent of all USAID awards made to higher education institutions globally.

As the dollars we spend are not the exclusive measure of our commitment, we have also taken key steps to accelerate development progress in FY 2014, including the launch of USAID's Global Development Lab. The Lab – together with the university community and other partners – is enhancing the Agency's capacity to harness science, technology, and innovation to achieve impact faster, cheaper, and more sustainably than has been possible in the past. Aligned with this new philosophy, this year we are—for the first time—including the full range of funded activities at Title XII universities, not just those in the traditional areas of agriculture and natural resources, environment, and higher education.

The members of BIFAD have played an invaluable role in devising a forward-looking strategy for university engagement and capacity development through Feed the Future, and in bringing the public and the global community of development professionals into the conversation. I continue to look to BIFAD for counsel on key matters related to Title XII and the university community, and value their guidance in shaping our strategies and programs.

Going forward, we will continue to tap into the energy, creativity, talent, and expertise of Title XII universities and the global academic community. These important partnerships are essential to our success in fostering sustained and inclusive growth in countries across the globe, and in advancing toward our goals of ending global hunger and extreme poverty. I submit this report to you as affirmation of our unwavering commitment to these goals.

Sincerely,

Gayle E. Smith  
USAID Administrator

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<sup>1</sup> BIFAD is a federal advisory committee tasked with providing guidance to USAID on issues related to food security.

## EXECUTIVE SUMMARY

This annual *U.S. Agency for International Development (USAID) Title XII Report for FY 2014* summarizes USAID partnerships and priorities with U.S. institutions under Title XII of the Foreign Assistance Act of 1961, as amended. The report focuses, first and foremost, on the Agency's important collaboration with its Title XII partners to address the global food security challenge through investments in agricultural research, education and extension, and through related programs in nutrition, sustainable management of natural resources, and trade. However, Title XII universities have evolved since their founding in earlier centuries to become powerful hubs of knowledge generation across the full spectrum of human endeavor. As such, this report describes broader efforts in development undertaken by the Title XII community. Moreover, institutions that have not belonged to the Title XII community historically are now tackling the important problems of food security, climate change and extreme poverty.

***Feed the Future:*** The foundation for USAID's leadership in agricultural development is the U.S. Government's global hunger and food security initiative known as Feed the Future. This whole-of-government initiative involves 11 federal departments and agencies, each contributing aspects of their own programs that help advance the cause of global food security. In FY 2014, Feed the Future continued its leadership in line with the initiative's strategic goals and saw the emergence of dramatic gains in childhood nutritional status (stunting reductions between 9 percent and 33 percent as well as reductions in extreme poverty in some countries).

***Research and University Engagement:*** FY 2014 witnessed the launch of the Global Development Lab, USAID's platform for bringing together a diverse set of partners to discover, test and scale breakthrough solutions enabled by technology. Separately, the Bureau for Food Security awarded five new U.S.-university-led Feed the Future Innovation Labs in gap areas of chickpea resilience, post-harvest loss, food processing, sustainable intensification, and soy value chains, whose total estimated funding for the life of the projects reach \$106,000,000. The Young African Leaders Initiative (renamed the Nelson Mandela Washington Fellowship) brought its first cohort of fellows to 20 U.S. universities for a six-week leadership seminar, as well as interactions with public and private sector entities. Engagement of minority serving institutions (MSIs) more than tripled over FY 2013.

***Human and Institutional Capacity Building:*** In March 2014, the Board for International Food and Agricultural Development (BIFAD) released its recommendations on human and institutional capacity development (HICD) for food security. The BIFAD last addressed this topic in 2004, and the new report represents an update and re-examination of the nature of partnerships between U.S. universities and universities in developing countries. The BIFAD recommendations, along with stakeholder guidance, will inform the next generation of HICD programming at USAID.

***Local Solutions:*** This effort builds on USAID Forward, a broad set of institutional reform objectives undertaken by USAID beginning in 2011. Local Solutions is designed to ensure that USAID's programs across all sectors are country-owned and country-led, emphasizing transparency, efficiency, accountability, and sustainability. In Feed the Future, Local Solutions

objectives shape and expand Title XII engagement. In FY 2014, efforts began to engage the university community more actively around Local Solutions, particularly with respect to institutional strengthening.

**BIFAD:** Members of the BIFAD engaged in a broad range of topics this year, from the changing nature of university partnerships to agricultural investments in Afghanistan to national agricultural research system strengthening. The FY 2014 BIFAD comprised Brady J. Deaton, BIFAD chair and chancellor emeritus of the University of Missouri; Catherine Bertini, World Food Prize winner and professor at Syracuse University; Waded Cruzado, president of Montana State University; Gebisa Ejeta, World Food Prize winner and distinguished professor of Agronomy at Purdue University; Harold L. Martin, Sr., chancellor of North Carolina A&T State University; and Marty L. McVey, president of McVey & Co. Investments.

FY 2014 was a year of strong bipartisan support in Congress and expanded execution of Congressional and executive branch coordination for greater emphasis on food security in development activities, coupled with increased involvement of U.S. and global universities. The table below reflects USAID’s commitment to universities around the world and clearly illustrates the importance placed on contributions from the academic sector to the Agency’s development agenda. The amounts capture investments in all activities (not only those strictly related to food security) and geographic locations. USAID views its leadership of Feed the Future as a partnership not just with other executive branch departments and agencies but also with Congress in support of eliminating hunger throughout the world.

*\*All data contained in this report are based on financial obligations for direct awards to institutions of high education (IHEs), as well as a limited number of sub-awards made through non-IHEs to IHEs.*

<b>SUMMARY OF USAID INVESTMENTS*</b>	<b>FY 2014</b>	<b>Total, FY 2010-2014</b>
All Universities (Foreign & U.S.)	\$466,164,349	\$2,135,159,328
All U.S. Universities	\$403,409,846	\$1,840,047,923
Foreign Universities	\$62,754,503	\$295,111,405
Title XII U.S. Universities	\$365,180,060	\$1,715,902,599
Non-Title XII U.S. Universities	\$38,229,786	\$124,145,324

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## INTRODUCTION

Building on U.S. commitments to end extreme poverty and ensure global food security, FY 2014 represented a year of consolidation and continued execution of the strategic priorities established for Feed the Future. The development challenge today is to find lasting solutions to food insecurity and extreme poverty in the face of demographic shifts, climate change, and population pressures on land, water, and other natural resources.

In FY 2014, encouraging results began to emerge, suggesting that Feed the Future investments are, in combination with host country and other efforts, achieving intended objectives. In Ethiopia, there was a 9 percent reduction in childhood stunting nationally between 2011 and 2014. Ghana experienced a 33 percent decline in childhood stunting nationally between 2008 and 2014. Kenya saw a more than 25 percent reduction in childhood stunting in the areas of the former Eastern and Nyanza provinces, where Feed the Future programs have been concentrated, from 2009 to 2014. In Uganda, data show a 16 percent decrease in poverty in rural areas, including where Feed the Future works, between 2009-2010 and 2012-2013, while national poverty levels declined from 24.5 percent in 2009-2010 to 19.7 percent in 2012-2013. Globally, in FY 2014 alone, Feed the Future investments reached nearly 19 million households with assistance or training and helped nearly 7 million farmers gain access to improved tools or technologies such as high-yielding seeds, fertilizer application, soil conservation, and water management. In addition, Feed the Future trained nearly 1.5 million people in child health and nutrition, and reached more than 12 million children with nutrition interventions. These efforts helped Feed the Future-supported farmers garner more than half a billion dollars in new agricultural sales, which directly impact farmer incomes<sup>1</sup>.

These are accomplishments for which the American people can be justifiably proud—and they would not have been possible without the expertise, creativity, innovative spirit, and energy resident in U.S. Title XII institutions.

Beginning this year, this report will document all development activities executed by Title XII institutions, in addition to the traditional fields of agriculture, natural resources, environment, and higher education. It is important to recognize that Title XII institutions have evolved since the Title's passage in December 1975 as part of the International Development and Food Assistance Act of 1975 (P.L. 94-161). They are bringing more resources to bear on a range of development challenges beyond agriculture. The Famine Prevention and Freedom from Hunger Improvement Act of 2000 (P.L. 106-373) widened the provisions of the original Act from preventing famine and establishing freedom from hunger to achieving “[t]he mutual goals among nations of ensuring food security, human health, agricultural growth, trade expansion, and the wise and sustainable use of natural resources.” As such, more non-agriculture institutions have been designated as Title XII institutions, and schools traditionally working in agriculture have become increasingly transdisciplinary.

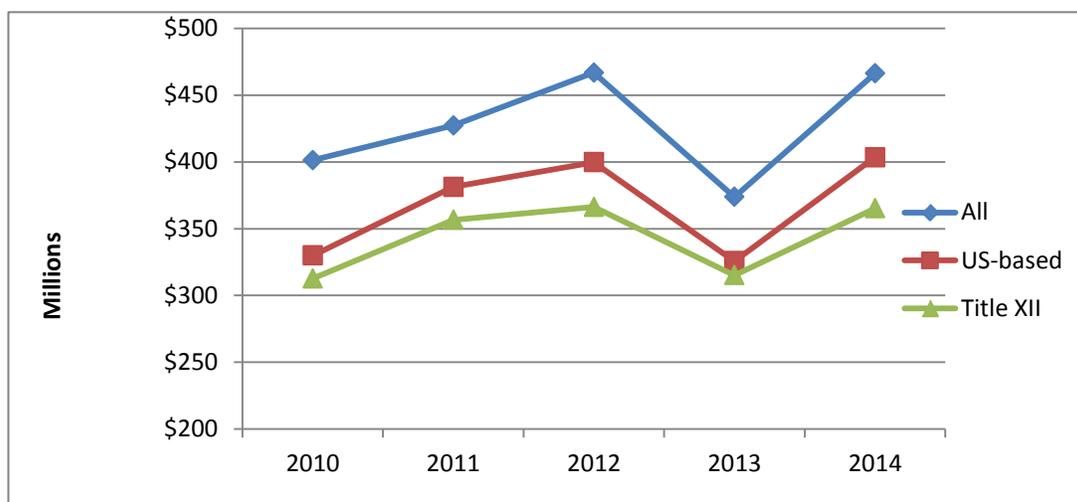
Many Title XII institutions are working in the fields of health, governance, trade, and more, and it is increasingly clear that these fields are interlinked with agricultural development. Urban schools that have historically not worked in agriculture are entering the field in response to the challenges of environmental degradation and climate change. In addition, this report, for the first time, will also include water and sanitation projects within the environment category, which

were previously not considered in the domain of Title XII activities. The reason for this new inclusion is twofold. First of all, according to the Food and Agriculture Organization of the United Nations, up to 95 percent of water in developing countries is destined for agriculture. Second, new understanding of the relationship between nutrient absorption and enteric health links water and sanitation closely to Feed the Future’s goal of improved child nutrition.

### *Higher Education as a Driver of Development*

USAID recognizes the importance of the higher education community in advancing the goals of Feed the Future and development more generally. This is highlighted by high levels of USAID investment globally in higher education institutions, totaling \$2.08 billion over the last half decade, 81 percent of which went to Title XII universities.

Investments in universities generally increased from FY 2010 to FY 2012, dropped somewhat in FY 2013, and rebounded in FY 2014. Figure 1 and Table 1 illustrate these trends. In the past five years, a total of 188 global higher education institutions received direct funding over \$10,000 from USAID, 94 of which are based in the United States and 91 of which are Title XII institutions.



**Figure 1: Awards to Universities, FY 2010-2014.** The value that USAID places on universities is clearly illustrated by its level of investment. The blue line represents direct awards made to all universities in the world; the red line, universities in the United States and Puerto Rico; and the green line, Title XII universities. The dip in FY 2013 funding reflects the ending of major programs, but levels rebounded the following year as new activities began. Title XII schools received 80 percent of the total funding to universities during this five-year time frame. Continued growth is projected for FY 2015.

**Table 1: Funding to Tertiary Educational Institutions Worldwide\*\***

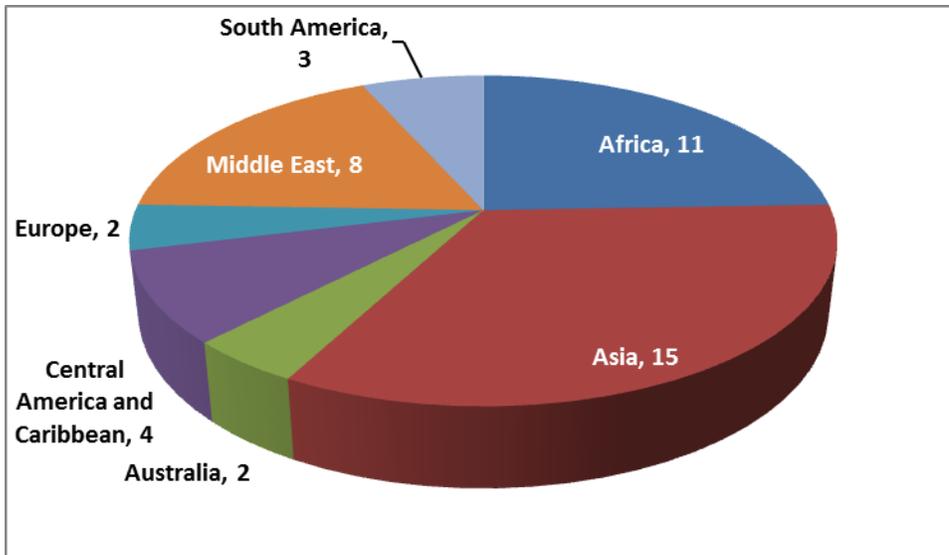
	<b>FY 2014</b>	<b>Total, FY 2010-2014</b>
All Universities (Foreign + U.S.)	\$466,164,349	\$2,135,159,328
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### ***Global Distribution of Investments***

USAID makes investments through universities throughout the world. In FY 2014, 78 percent (totaling \$365,180,060) of awards were made to Title XII universities, 14 percent (totaling \$62,754,503) of grants went to institutions outside of the United States, and 8 percent went to non-Title XII U.S. medical schools (totaling \$38,229,786). Figure 2 illustrates the distribution of the funding outside of the United States. Even when funding went to foreign universities directly, many were working in partnership with U.S. collaborators and obtained their awards as a result of assistance provided by the U.S. institution.

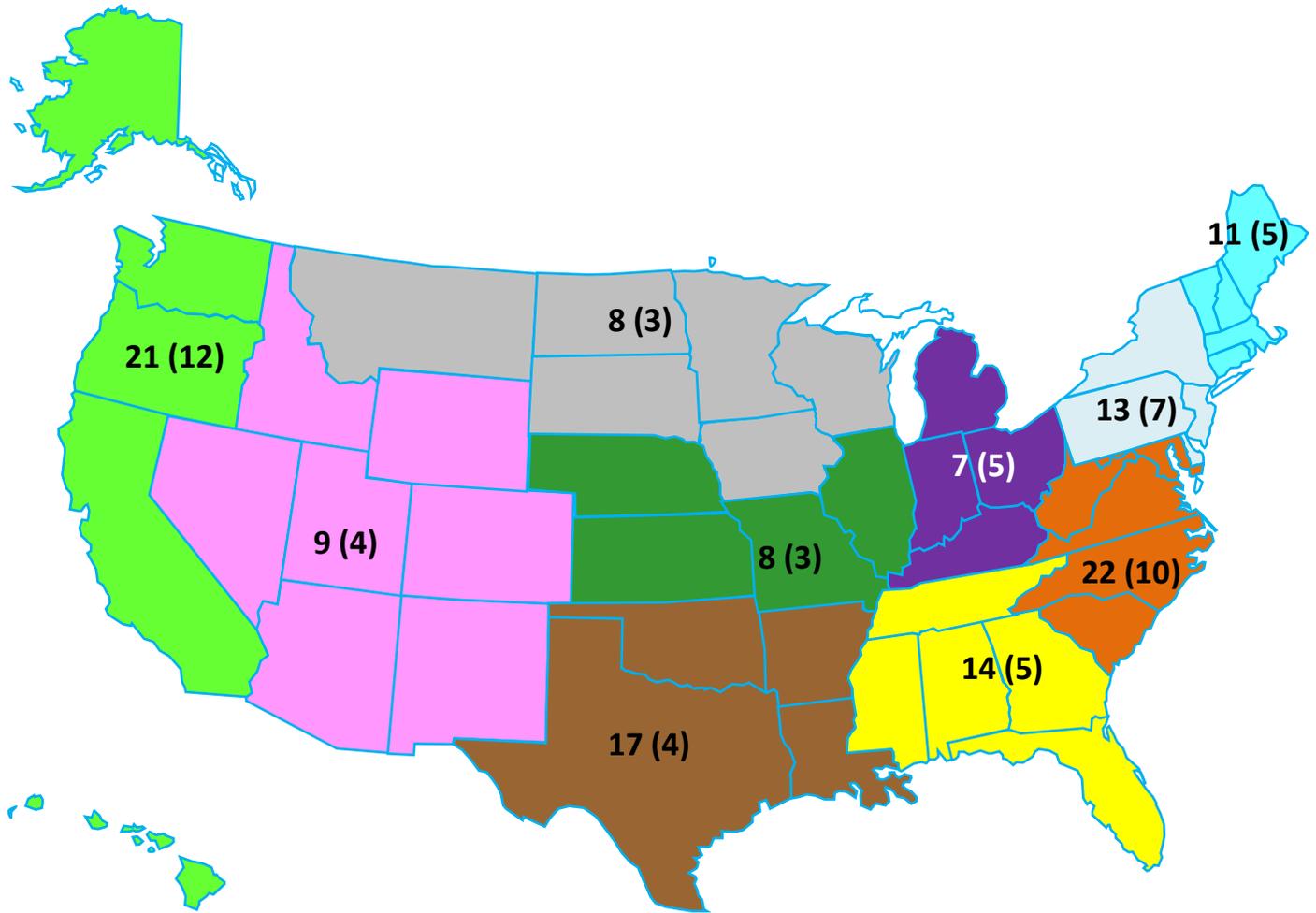
Notably, Indian universities are well represented among Asian institutions receiving awards. In the mid-20th century, the United States invested heavily in developing the capacity of India's agricultural universities. Today, these universities are working in partnership with Title XII universities to develop East African agricultural capacity. India, along with South Africa and Brazil, is an important strategic partner advancing food security in eastern and southern Africa through Trilateral Assistance, leveraging technical expertise and training capacity in the public and private sectors as well as at universities and other institutions. Not only have those early investments sustained agricultural advances there, but local capacity has grown to the point where these countries are now able to assist universities from other developing countries with their technical know-how.



**Figure 2: Geographic Distribution of Awards to Foreign Universities.** The pie chart reflects the number of institutions within the geographic area that were directly funded by USAID. In FY 2014 a total of 45 institutions in 29 countries received funds. This relative distribution has remained fairly constant since FY 2010, reflecting Agency priorities, particularly in Feed the Future countries. From FY 2010-2014, awards were made to 94 institutions in 49 foreign countries.

### *U.S. Distribution of Investments*

In FY 2014, USAID invested a total of \$403,409,846 in U.S. institutions of higher education, only three of which were not Title XII universities (those were stand-alone medical schools). Of this total, \$365,180,060 was awarded to Title XII institutions for research and development activities across all fields. Figure 3 depicts the geographic distribution of funding within the United States.



**Figure 3: Geographic Distribution of Awards to U.S. Universities.** The map above illustrates the location of schools receiving direct USAID awards (all categories) by region, as well as sub-awards under Feed the Future research and Human and Institutional Capacity Development (HICD) programs and to minority serving institutions, or Young African Leaders Initiative. The number in parentheses reflects the number of institutions with prime awards. A prime or direct award means that the institution is the legal entity that receives the award directly from USAID. Partners receive their funds from the prime award holder in the form of sub-awards. A total of 131 institutions were funded, only three of which are not Title XII universities (medical schools). In FY 2014 funds were disbursed in 44 states, plus the District of Columbia and Puerto Rico (one Institute of Higher Education not depicted on map). The numbers reflect the number of institutions, not awards. (Several institutions hold multiple awards.)

## ***An Evolving Approach to University Engagement***

USAID stresses a philosophy of “collaboration, learning and adaptation.” This approach helps to create the conditions for development success by ensuring that progress toward development objectives is guided by continuous learning. The intent is to continuously assess the causal pathway to desired outcomes and adjust activities as necessary to yield the most effective course of action. FY 2014 saw several adaptations to the overall development approach and strategic engagement with universities, some of them suggested by the Board for International Agricultural Development. Two themes were prominent in FY 2014:

- ***Local Solutions Mandate:*** USAID is placing increased emphasis on country-driven and country-owned development.
- ***Institutional Capacity Strengthening:*** Under the Local Solutions mandate (formerly USAID Forward), Human and Institutional Capacity Development is key in all programming. The Agency is exploring ways to achieve greater synergy between all capacity development activities across USAID as a whole, with other governmental agencies, and with other major donors.
- ***Data-Driven Development and a Focus on Impact:*** Data, science, and analytics are transforming our understanding of large-scale systems and how they change. USAID has embraced an approach to monitoring and evaluation (M&E) that relies heavily on data to facilitate long-term learning and adaptation.

## **I. KEY USAID ENGAGEMENT WITH TITLE XII INSTITUTIONS**

In FY 2014, USAID expanded its engagement with Title XII universities, in line with Feed the Future’s goals of reducing extreme poverty and undernutrition through agriculture-led economic development.

### ***U.S. Universities Host Africa’s Next Generation of Leaders***

President Obama launched the Young African Leaders Initiative (renamed the Nelson Mandela Washington Fellowship) in 2010 to support young African leaders as they spur growth and prosperity, strengthen democratic governance, and enhance peace and security across Africa. The initiative has two dimensions: a fellowship program in the United States for leadership training/professional development and a network of four hubs in Africa intended to reach a large number of aspiring leaders. The fellowship program has three tracks: business and entrepreneurship, civic leadership, and public management. In May 2014, the first component of the program launched with 500 Mandela Washington fellows arriving in the United States and fanning out across the country to more than 20 universities that hosted six-week leadership training courses. Beyond the benefits of developing capacity, this program builds goodwill toward the United States among young leaders in developing countries, making it an important investment in U.S. diplomacy.

**Table 2: Universities Delivering the Young African Leaders Initiative Training Component**

AR	U. of Arkansas	GA	Clark-Atlanta U.	NJ	Rutgers U.
AZ	Arizona State U.	IL	Northwestern U.	NY	Syracuse U.
CA	U.C. Berkeley	IN	U. of Notre Dame	NY	Wagner College
CT	Yale U.	LA	Tulane U.	TX	U. of Texas, Austin
DC	Howard U.	MD	Morgan State U.	VA	U. of Virginia
DE	U. of Delaware	MN	U. of Minnesota	VA	William and Mary
FL	Florida International U.	NH	Dartmouth U.	WI	U. of Wisconsin, Stout

***Launch of Five Feed the Future Innovation Labs***

The USAID Bureau for Food Security awarded five new Feed the Future Innovation Labs in FY 2014 (listed below). The total estimated awards over the life of the projects reach \$106,000,000. Please see Appendix 2 for a full listing of their collaborating partners.

- The Feed the Future Innovation Lab for Soy Bean Value Chain Research, led by the University of Illinois at Urbana-Champaign
- The Feed the Future Innovation Lab for Climate Resilient Chickpea, led by the University of California, Davis
- The Feed the Future Innovation Lab for Reduction of Post-Harvest Loss, led by Kansas State University
- The Feed the Future Innovation Lab for Food Processing and Post-Harvest Handling, led by Purdue University
- The Feed the Future Innovation Lab for Sustainable Intensification, led by Kansas State University

***Commitment to Minority Serving Institutions and Diversity***

Reflecting the Agency’s strong commitment to diversity and recommendations contained in the 2011 BIFAD report, *Expanding the Role of Minority Serving Institutions (MSIs) in the World of USAID*, FY 2014 saw dramatic growth in the engagement of MSIs. The number of MSIs working with the Feed the Future Innovation Labs nearly quadrupled from six in FY 2013 to twenty-two in FY 2014, in line with a 2011 BIFAD working group recommendation to expand MSI access to USAID programming. Across all fields, in FY 2014 USAID awarded funds to four lead institutions for research and development. In addition 26 sub-awards went to 28 different MSI institutions, totaling \$27,651,925. Moreover, 27 MSIs received funds for participant training or human and institutional capacity development, totaling \$5,732,359. Appendix 1 provides a full listing of the MSIs receiving funds.<sup>2</sup>

## II. TITLE XII ACTIVITIES AND PROGRESS IN FY 2014

Section 297 of Title XII authorizes activities within five program areas, which achieve distinct and specific outcomes as described below. USAID has active programs that directly address all five components.

**Component 1** supports strengthening the institutional capacity and human resources in developing countries around food security. This goal is achieved directly through such programs as the Borlaug Higher Education for Agricultural Research and Development program, implemented by Michigan State University; the Borlaug Leadership Enhancement for Agriculture Program, implemented by UC Davis; the U.S. Borlaug Fellows in Global Food Security Program, implemented by Purdue University; and the Innovation for Agricultural Education and Training program, implemented by Virginia Tech. Moreover, the institutional capacity development focus is being mainstreamed across all Feed the Future programming in order to ensure sustainability.

**Component 2** supports long-term programs for U.S. university global agricultural and related environmental collaborative research and learning. We respond to component 2 primarily through the Feed the Future Innovation Labs. The investments in this portfolio in FY 2014 amounted to approximately \$43,000,000. See Appendix 2 for a full listing of Feed the Future Innovation Labs and collaborating partner universities in the United States.

**Component 3** supports integrating U.S. universities into the international network of agricultural science. This component is addressed through the Feed the Future Innovation Labs and also through the Higher Education Solutions Network of the Global Development Lab, primarily the Global Center for Food Systems Innovation implemented by Michigan State University.

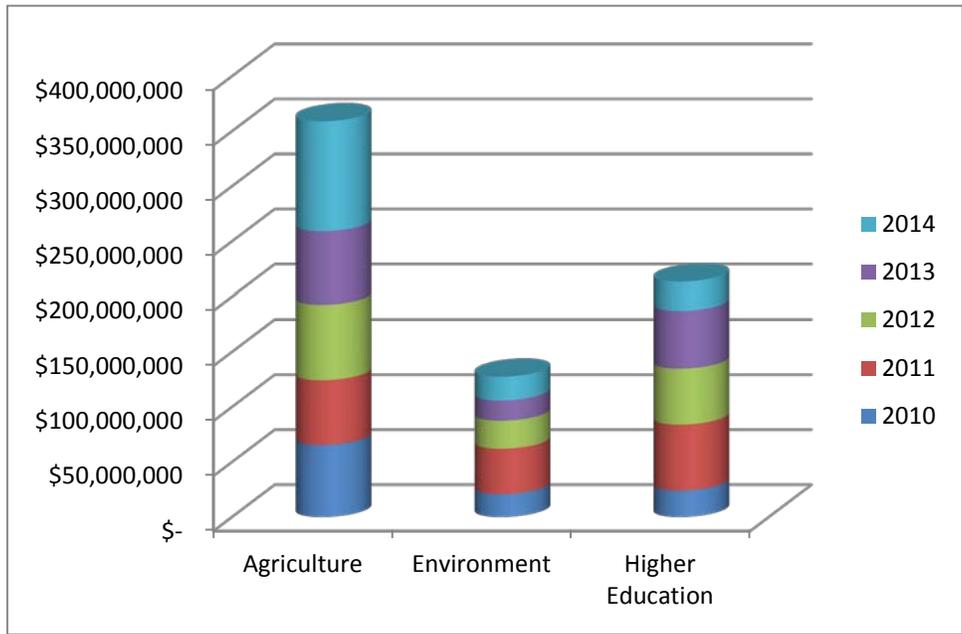
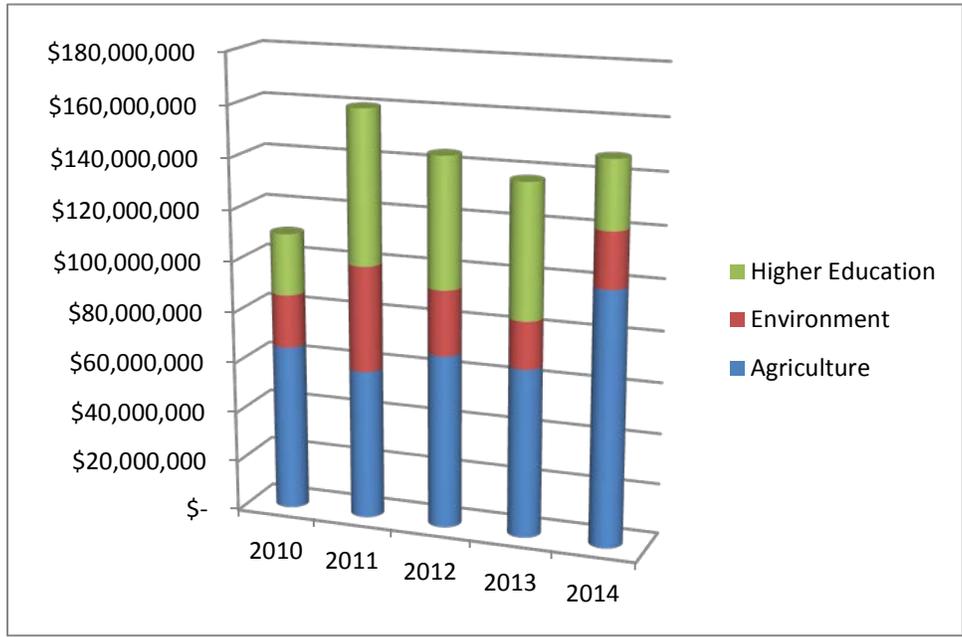
**Component 4** supports programs for (a) international agricultural research centers, (b) research projects identified for specific problem-solving needs, and (c) strengthening of national research systems. USAID has had a long-standing commitment to the Consultative Group for International Agricultural Research (CGIAR) centers. One example is the U.S. University—CGIAR Linkages Program that will continue into the foreseeable future. USAID's climate-smart agriculture, biosafety and scaling initiatives also respond to this mandate.

**Component 5** authorizes special programs supported by non-agricultural funds. Consistent with the amended general provisions of the Act (Sec 296), Title XII activities are now more broadly defined to include trade expansion, rural income generation, nutrition and agribusiness. Title XII universities are engaging in a much broader range of activities than in the past, everything from health to good governance to energy and infrastructure as well as to the traditional Title XII agricultural production activities. Moreover, universities that historically were not in the Title XII community have begun addressing traditional Title XII concerns in agriculture, environment, natural resources and food security.

In FY 2014, USAID invested \$365,180,060 in direct partnerships with Title XII universities in all fields of endeavor throughout the United States. These efforts are global, with a primary focus on South Asian and Sub-Saharan African Feed the Future countries and a secondary focus in Latin American and Caribbean Feed the Future countries as the majority of the Feed the Future

focus countries are in South Asia and Sub-Saharan Africa. Restricting our consideration to only the traditional Title XII fields of agriculture and natural resources, environment and clean water, and capacity development for higher education, the total investment comprises \$147,747,811, which represents a 7.7 percent increase over FY 2013.

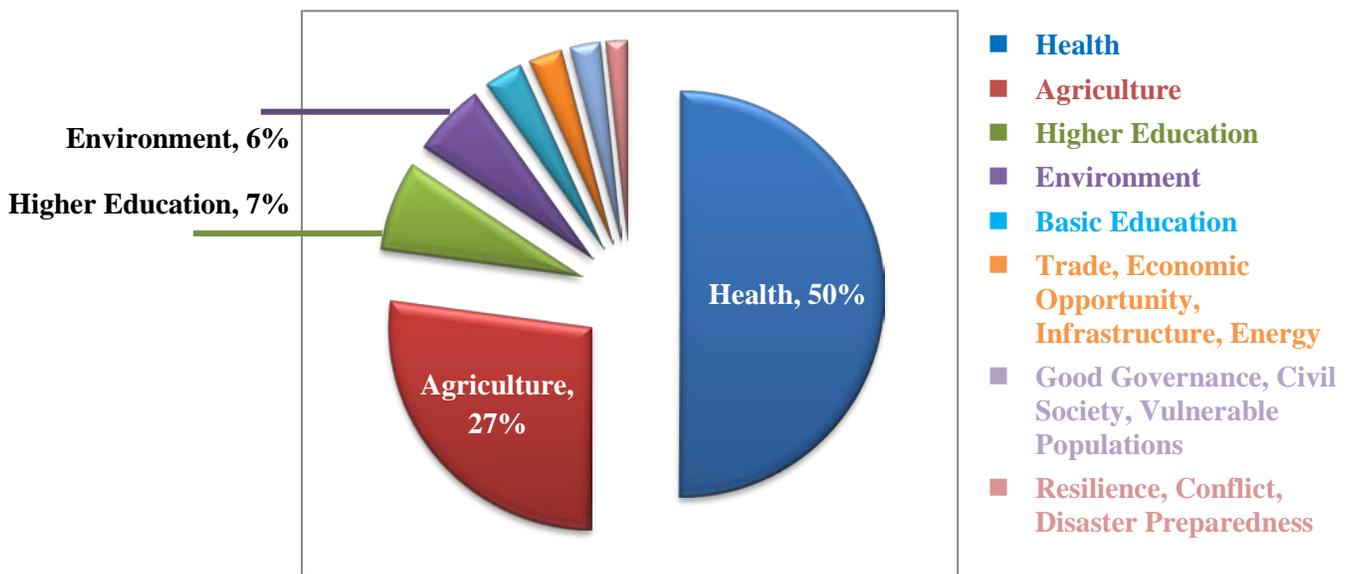
Figure 4 and Table 3 summarize funding to traditional Title XII activities over the past five years. Briefly, funding for agriculture and natural resources increased 50 percent over FY 2013 levels to \$99,815,027. Funding for the environment, including water and sanitation, increased by 17.3 percent to \$21,593,760. Despite a decrease in higher education funding due to the ending of a large initiative, during FY 2014 a total of \$104,707,411 was spent on programs to strengthen higher education. The implementers, in addition to Title XII university partners, who received approximately one-quarter of the total funds, were private companies, non-profits and government entities. Over the coming three years, some rebound is expected as new programs commence. It must be emphasized, however, that these numbers represent primarily USAID direct awards and a few large sub-awards. Since many lead Innovation Lab universities, corporate and non-profit USAID implementers regularly subcontract to universities and these amounts are not captured centrally. Therefore, these figures must be considered a minimum, not a maximum in terms of USAID financial support to Title XII universities.



**Figure 4: Investments in Traditional Title XII Activities.** The top panel shows that Title XII funding peaked at \$160,223,320 million in FY 2011, but since then has remained relatively constant at approximately \$143,000,000. From FY 2011 to FY 2014 total spending reached \$699,923,323. The bottom panel illustrates the shifting distribution of investment within each element of the Title XII mandate from FY 2010 to FY 2014.

**Table 3: Title XII Investments from 2010 to 2014 in the Areas of Agriculture, Environment and Higher Education**

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Totals
Agriculture	\$65,416,910	\$58,894,006	\$68,378,539	\$66,503,240	\$99,815,027	\$359,007,722
Environment	\$20,785,535	\$41,276,328	\$24,436,978	\$18,406,288	\$21,593,760	\$127,498,889
Higher Ed	\$23,930,071	\$60,052,986	\$50,837,068	\$52,258,283	\$26,338,304	\$213,416,712
<b>Totals</b>	<b>\$110,132,516</b>	<b>\$160,223,320</b>	<b>\$144,652,585</b>	<b>\$137,167,811</b>	<b>\$147,747,091</b>	<b>\$699,923,323</b>



**Figure 5: Distribution of USAID Funding at Title XII Institutions According to Category.** The pie graph above shows the changing nature of Title XII engagement with USAID. In FY 2014 the largest amount of funding was disbursed in health programming (~50 percent), followed by agriculture (~27 percent), higher education (~7 percent), environment (~6 percent), basic education (~3 percent), trade, economic opportunity, infrastructure, and energy (~3 percent), good governance, civil society, vulnerable populations (2 percent), and resilience, conflict, and disaster preparedness (~1 percent). Traditional Title XII activities account for less than half of the funding to Title XII universities.

### **III: LOOKING FORWARD: TITLE XII—THE NEXT FIVE YEARS**

A number of important trends are affecting our planet now and will continue to do so well into the 21<sup>st</sup> century. One of the most serious is global climate change. Altered weather patterns will affect everything from agricultural yields to basic human safety.

In 2007, we became a more urban than rural world, a change that occurred in the United States in the late 1910s. Within 20 years, approximately 70 percent of humanity will inhabit cities. Increasing urbanization presents new set of issues and opportunities around food security and good nutrition for which the expertise of Title XII universities will certainly be enlisted. Moreover, the nutrition transition that occurred in the developed world is now reaching poorer countries. Achieving dietary diversity for optimum human development and good health will be an important goal that Title XII universities can help address.

Coupled with these fundamental changes, technology and commerce will continue to shrink the world. Universities must continue to play a large role in helping to solve intractable problems. The nature of engagement with developing country universities is changing as a result of generally increased capacity and a more diverse development landscape.

USAID has identified certain directions to explore in FY 2015 and beyond in response to both these larger trends and to BIFAD guidance:

- BIFAD and USAID will engage in dialogue with the broader global community about the changing nature of U.S. university-developing country university partnerships, particularly in light of the past success of capacity building programs and USAID Local Solutions mandates (following on USAID Forward);
- Broader engagement with universities across a range of topics, including the next generation of USAID programming around institutional capacity development and research;
- Greater focus on public-private partnerships in HICD and youth agricultural workforce development;
- Response to the HICD report in design of new HICD portfolio and exploration of National Agricultural Research Systems strengthening activities; and
- USAID's Bureau for Economic Growth, Education, and Environment (E3) will engage a senior higher education coordinator, explore the use of Massively Open Online Courses (MOOCs) to increase access to higher education, and launch the Higher Education Partnerships for Innovation and Impact (HEPII) program in FY 2015. The HEPII program links U.S. and developing country universities at the request of USAID field missions.

## IV: SUMMARY OF BIFAD ACTIVITIES IN FY 2014

The BIFAD is a presidentially-appointed, seven-member advisory body comprising at least four representatives from U.S. universities, with additional representation from the private sector and civil society. BIFAD is authorized under Section 298 of Title XII of the Foreign Assistance Act of 1961 in recognition of the critical role that U.S. land-grant institutions play in agricultural development and ensuring food security, both domestically and abroad. BIFAD plays an important advisory role to USAID on Title XII-related agriculture and higher education issues in developing countries. BIFAD's activities are supported by USAID according to the guidelines established by the Federal Advisory Committee Act of 1972.

BIFAD members in FY 2014 included Brady J. Deaton, BIFAD chair and chancellor emeritus of the University of Missouri; Catherine Bertini, World Food Prize winner and professor at Syracuse University; Waded Cruzado, president of Montana State University; Gebisa Ejeta, World Food Prize winner and distinguished professor of Agronomy at Purdue University; Harold L. Martin, Sr., chancellor of North Carolina A&T State University; and Marty L. McVey, president of McVey & Co. Investments.

In FY 2014, the BIFAD commissioned the *Review of Strategic Human and Institutional Capacity Development (HICD) Issues and the Role of USAID and Title XII under the Feed the Future Programs*. The review team, chaired by Victor Lechtenberg of Purdue University, was composed of four additional members: Albert Ayeni, Rutgers University; Ralph Christy, Cornell University; and Carol Kramer-LeBlanc, formerly of the U.S. Department of Agriculture. This represented the first time the BIFAD had revisited this topic since its 2004 report. Key features of the report were presented by Lechtenberg at the January 2014 BIFAD meeting and presented to the Agency in final form in May 2014. To follow this report, the BIFAD sought stakeholder feedback through community engagement via an e-consultation in FY 2015. Key stakeholders in the United States, Africa, and Asia will 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 that major effort, the BIFAD was very actively engaged throughout FY 2014 in global outreach. The Board continued its deep commitment to Title XII engagement in agricultural research and youth development. Table 6 provides a summary of the various activities in which the BIFAD participated.

**Table 4: BIFAD Outreach and Engagement Events in FY 2014**

Date & Location	Event	Highlights
December 9-15, 2013 Battambang, Cambodia	4th International Conference on Conservation Agriculture	<ul style="list-style-type: none"> <li>Waded Cruzado delivered conference keynote and visited USAID research sites in the field.</li> </ul>
January 30, 2014 Washington, DC	Public BIFAD Meeting: “Higher Education: Partnerships, Policies and Programs”	<ul style="list-style-type: none"> <li>Focus on higher education efforts under Feed the Future</li> <li>Panel on student engagement</li> <li>Side event: “Approaches to National Agricultural Research System Strengthening”</li> </ul>
February 27-28, 2014 Auburn, AL	Universities Fighting World Hunger Pre-Summit: “Shaping the Collective Role of Universities as a Partner in Ending Hunger”	<ul style="list-style-type: none"> <li>Brady Deaton supported the movement to inform, mobilize and activate students in the fight against hunger on campuses worldwide</li> <li>Contributed to the development of the PUSH initiative, “Presidents United to Solve Hunger”</li> </ul>
April 3, 2014 New York, NY	Launch of the USAID Global Development Laboratory	<ul style="list-style-type: none"> <li>Brady Deaton attended the launch event hosted by Administrator Rajiv Shah and former Secretary of State Hillary Clinton</li> <li>The Lab fosters science and technology-based solutions to help end extreme poverty and works extensively with U.S. universities</li> </ul>
May 12-16, 2014 Athens, Greece	Feed the Future Innovation Lab on Grain Legumes Kick-off Meeting	<ul style="list-style-type: none"> <li>Brady Deaton presented the “Board of International Food and Agriculture Development Vision for USAID Innovation Labs and Strategic Partnerships to Achieve Feed the Future Goals”</li> </ul>
May 19-21, 2014 Washington, DC	Feed the Future Global Forum	<ul style="list-style-type: none"> <li>Gebisa Ejeta participated in the panel “Demonstrating Commitment to New Models of Development”</li> <li>BIFAD co-sponsored the session “Building Human and Institutional Capacity,” moderated by Brady Deaton; this session brought together USAID field mission officials and foreign government leaders to discuss opportunities for maximizing HICD outcomes</li> </ul>
August 4-6, 2014 Washington, DC	U.S.-Africa Leaders Summit	<ul style="list-style-type: none"> <li>Brady Deaton and Gebisa Ejeta interacted with African heads of state around issues of food security and higher education at both the main event and a USAID-organized side event.</li> </ul>

September 2-5, 2014  Addis Ababa, Ethiopia	African Green Revolution Forum	<ul style="list-style-type: none"> <li>• Catherine Bertini interacted with African Women in Agricultural Research and Development fellowship winners.</li> </ul>
September 17-19, 2014  Washington, DC	Feed the Future Innovation Labs Council Meeting	<ul style="list-style-type: none"> <li>• Brady Deaton addressed the council on behalf of BIFAD</li> <li>• Institutional capacity development was prominent</li> <li>• Briefings with Congressional staffers about Innovation Lab goals and benefits to U.S. agriculture</li> <li>• Capitol Hill reception and announcement of the latest award to Kansas State University for the Feed the Future Innovation Lab for Sustainable Intensification</li> </ul>
September 18-19, 2014  Washington, DC	USAID Frontiers in Development Forum	<ul style="list-style-type: none"> <li>• Brady Deaton participated in a panel on “Advancing Food Security among the Extreme Poor”</li> <li>• Announcement of World Food Prize’s 2014 Norman Borlaug Award for Field Research</li> </ul>

## **V: BIFAD RESPONSE TO THE FY 2014 TITLE XII REPORT TO CONGRESS**

The BIFAD is pleased to comment on this Title XII Report to Congress for FY 2014. 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 it has also established new avenues for working with universities to accomplish development goals. Since FY 2011, the annual Title XII Report to Congress has provided a level of detail on these interactions for consideration by Congress, allowing for much more transparency than previous Title XII reports. An earlier BIFAD study highlighted USAID's efforts to leverage the capabilities of minority serving institutions into Agency programs, and we are pleased to see these efforts highlighted in this year's report. Such efforts will continue to be of interest to BIFAD because they recognize an area of significant capability in U.S. higher education.

BIFAD applauds USAID for the steps taken to establish its Global Development Lab, which includes a Higher Education Solutions Network (HESN). The Board is very pleased to observe the high level of interest from U.S. universities to develop the HESN's Development Labs. We want to monitor the progress of those Labs in USAID's work, and hope that ways can be found to draw on the many good ideas brought forth by universities willing to engage in partnerships with USAID. BIFAD notes that the FY 2014 Title XII Report to Congress highlights only one of the HESN Development Labs devoted to food security (the Global Center for Food Systems Innovation). Given the dire need for work in this area, the extensive interest by Title XII universities in participating, and the world-renown expertise in Title XII universities in multiple disciplines relevant to the problems, BIFAD would hope that other HESN Development Labs might be established in critical areas of food and agricultural development. The past successes in human and institutional capacity development (HICD) that have resulted through collaborative partnerships between U.S. universities, host-country universities, and private sector entities are quite compelling and represent an area worthy of expansion.

In addition, FY 2014 saw significant funding to establish new Feed the Future Innovation Labs in partnership with selected Title XII institutions. Some Innovation Labs represented a continuation of efforts, which have been refocused to address the evolving global landscape. Other Innovation Labs delved more deeply into special topics critical for development. BIFAD is very pleased with these new directions, which are well documented in this Title XII Report. The continued involvement of U.S. university partners in collaborative research and human capacity development through these Feed the Future Innovation Labs is particularly noteworthy. The integration of medical programs for human and animal health and their integration with agricultural development are becoming more prevalent in universities, providing a promising avenue for more effective whole-of-government approaches that truly draw on whole-of-university expertise. The challenges to public health emerging around the world pose critical problems that will require the full range of university and governmental expertise.

USAID has significantly increased funding to support research, education and capacity development for agriculture, food and nutrition since FY 2010 (see Figure 1 in the report).

BIFAD notes the decline in funding during FY 2013 and hopes that the increase from FY 2013 to FY 2014 will continue into future years. We concur with the USAID assessment that the Title XII university community provides unique capabilities to aid the Feed the Future initiative in meeting its development goals. BIFAD anticipates monitoring progress toward those goals in future Title XII Reports to Congress, especially related to the Innovation for Agricultural Training and Education (InnovATE) and Modernizing Extension and Advisory Services (MEAS) projects. BIFAD is supportive of these efforts and will be particularly interested in assessing their progress in the future.

As described in the FY 2014 Title XII Report to Congress, in FY 2014 BIFAD commissioned and completed a review of HICD issues at the request of USAID Administrator Rajiv Shah. In FY 2015, BIFAD will follow up by seeking further feedback on the report and HICD issues in general from a broader group of stakeholders. BIFAD remains concerned about the level of investment in HICD partnerships between U.S. universities and universities abroad in targeted countries to address institutional strengthening for agricultural and economic development. The BIFAD HICD report of 2014 emphasized how important HICD partnerships are for meeting our national needs and for U.S. foreign policy objectives. BIFAD wishes to emphasize that strengthened HICD partnerships with U.S. universities help meet a clear national need for agricultural and economic development and for strengthening U.S. foreign policy. BIFAD will continue to work with USAID to address these issues in the future.

In FY 2011, BIFAD was challenged by Administrator Shah to play a more active role in engaging U.S. universities and to be “ambassadors” for the Feed the Future approach. BIFAD welcomes these changes and has accepted the Administrator’s challenge. During FY 2014, BIFAD members attended USAID-sponsored or hosted meetings related to agricultural research and innovation. While in focus countries (for example, Cambodia and Ethiopia), BIFAD members visited not only with USAID field mission staff, but also various projects outside of the cities. These outreach activities help inform BIFAD and allow us to provide better counsel to USAID and the Administrator. BIFAD also supported a new effort, Universities Fighting World Hunger, through a variety of mechanisms. We look forward to continuing interaction with the USAID Administrator on these and other 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 funded activities, such as the MEAS project, seem to have great potential for the future, and we look forward to monitoring their expected successes.

## ENDNOTES

<sup>1</sup> United States Agency for International Development, Bureau for Food Security. (2015, July). 2015 Feed the Future Progress Report. Retrieved from <http://feedthefuture.gov/progress2015/>

<sup>2</sup> United States Agency for International Development, FY 2014 Annual Performance Report on Minority Serving Institutions. The White House Initiatives on Historically Black Colleges and Universities, American Indian and Alaska Native Education, Educational Excellence for Hispanics, Asian Americans, and Pacific Islanders.

## APPENDICES

**APPENDIX 1: Minority Serving Institutions Funded by USAID in FY 2014.** Bold indicates prime award holders. Italics indicate association with the Feed the Future Innovation Labs. (Note: Several institutions have multiple awards.)

	INSTITUTION	AANPISI <sup>a</sup>	AIANSI <sup>b</sup>	HBCU <sup>c</sup>	HSI <sup>d</sup>
AK	<i>University of Alaska, Anchorage</i>		x		
AL	<i>Alabama A&amp;M University</i>			x	
AL	Troy University		x	x	
AL	<i>Tuskegee University</i>			x	
AR	University of Arkansas		x		
AR	<i>University of Arkansas, Pine Bluff</i>			x	
AZ	<i>Arizona State University</i>		x		
AZ	<i>University of Arizona</i>		x		
CA	California State University, Dominquez Hills				x
CA	California State University, East Bay	x			
CA	California State at Los Angeles				x
CA	Modesto Community College				x
CA	<b><i>University of California, Riverside</i></b>	x			x
CA	University of California, Irvine		x		
CA	<i>University of San Francisco</i>	x			
CA	<i>University of Southern California</i>	x			
DC	Howard University			x	
FL	Florida A&M University			x	
FL	<b><i>Florida International University</i></b>				x
GA	<i>Fort Valley State University</i>			x	
HI	<i>University of Hawaii, Hilo</i>	x			
HI	<i>University of Hawaii, Manoa</i>	x			

IL	University of Illinois at Chicago	x			
MA	Bunker Hill Community College	x			
MD	<i>University of Maryland, Eastern Shore</i>			x	
MO	St. Louis Community College			x	
NC	<i>North Carolina A&amp;T University</i>			x	
NC	Winston-Salem State University			x	
NM	New Mexico Institute of Mining and Technology				x
NM	<i>New Mexico State University</i>	x			x
NY	CUNY City College				x
NY	<i>St. John's University</i>	x			
OK	<i>Oklahoma State University</i>		x		
OR	Portland State University	x			
PR	<i>University of Puerto Rico, Mayaguez</i>				x
SC	South Carolina State University				x
TX	El Paso Community College				x
TX	Texas A&M University, Kingsville				x
TX	Texas Southern University			x	
TX	University of Houston	x			
TX	<b><i>University of Texas, El Paso</i></b>				x
UT	<i>Utah State University</i>		x		
VA	Northern Virginia Community College	x	x		
VA	University of Maryland, Eastern Shore			x	
VA	<i>Virginia State University</i>			x	
WA	Edmonds Community College	x			
WA	University of Washington, Seattle		x		

<sup>a</sup>AANPISI = Asian American, Native American, Pacific Islander Serving Institution

<sup>b</sup>AINSI = American Indian, Alaska Native Serving Institution

<sup>c</sup>HBCU = Historically Black College and University

<sup>d</sup>HSI = Hispanic Serving Institution

**APPENDIX 2: Feed the Future Innovation Labs' U.S. College and University Collaborating Partners in FY 2014**

<b>Innovation Lab</b>	<b>Lead University</b>	<b>Focus Countries</b>	<b>Collaborating Partners</b>
<b>Adapting Livestock Systems to Climate Change</b>	Colorado State University	Ethiopia, Kenya, Nepal, Senegal, Tanzania	Arizona State University City College of New York Michigan State University South Dakota State University Syracuse University Texas A&M University University of California, Davis University of Vermont Utah State University Virginia Polytechnic Institute and State University
<b>Applied Wheat Genomics</b>	Kansas State University	India, Mexico, Pakistan	Cornell University
<b>Aquaculture and Fisheries</b>	Oregon State University	Bangladesh, Burma, Cambodia, Ghana, Kenya, Nepal, Philippines, Tanzania, Uganda, Vietnam	Auburn University Alabama A&M University North Carolina State University Purdue 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 Polytechnic Institute and State University
<b>Assets and Market Access</b>	University of California, Davis	Bangladesh, Burkina Faso, Ghana, Haiti, Kenya, Malawi, Mexico, Nepal, Tanzania, Senegal, Uganda	Cornell University George Washington University Harvard University Michigan State University Ohio State University Stanford University University of California, Berkeley University of California, Los Angeles University of Colorado University of Michigan Yale University

<b>Climate Resilient Beans</b>	Pennsylvania State University	Haiti, Honduras, Malawi, Mozambique, Tanzania, Zambia	North Dakota State University University of Missouri University of Puerto Rico, Mayaguez
<b>Climate Resilient Chickpea (new)</b>	University of California, Davis	Ethiopia, India, Turkey	Florida International University
<b>Climate Resilient Cowpea</b>	University of California, Riverside	Burkina Faso, Ghana, Nigeria, Senegal	None in U.S.
<b>Climate Resilient Millet</b>	University of California, Davis	India, Mali, Nigeria	None in U.S.
<b>Climate Resilient Sorghum</b>	University of Georgia	Ethiopia, India, Mali	None in U.S.
<b>Climate Resilient Wheat</b>	Washington State University	Bangladesh, India	Kansas State University
<b>Food Processing and Post-Harvest Handling (new)</b>	Purdue University	Kenya, Senegal	North Carolina A&T University Oklahoma State University
<b>Food Security Policy</b>	Michigan State University	Burma, Mali, Malawi, Nigeria, Tanzania	None in U.S.
<b>Genomics to Improve Poultry</b>	University of California, Davis	Ghana, Tanzania	Iowa State University University of Delaware
<b>Grain Legumes</b>	Michigan State University	Benin, Burkina Faso, Ghana, Guatemala, Haiti, Honduras, Malawi, Mozambique, Niger, Senegal, Tanzania, Uganda, Zambia	Iowa State University Kansas State University North Dakota State University University of Hawaii, Manoa University of Illinois University of Puerto Rico, Mayaguez
<b>Horticulture</b>	University of California, Davis	Bangladesh, Benin, Cambodia, Costa Rica, Democratic Republic of Congo, El Salvador, Ethiopia, Ghana, Guatemala, Honduras, Kenya, Mexico, Nepal, Nicaragua, Panama, Rwanda, Tanzania, Thailand, Uganda, Vietnam, Zambia	Michigan State University North Carolina State University Ohio State University Pennsylvania State University Purdue University Rutgers University Texas A&M University Tuskegee University University of Florida University of Hawaii, Manoa University of Wisconsin, Madison
<b>Integrated Pest Management</b>	Virginia Polytechnic Institute & State University	Bangladesh, Cambodia, Ecuador, Ethiopia, Ghana,	Arizona State University Clemson University Kansas State University

		Guatemala, Honduras, India, Indonesia, Kenya, Mali, Nepal, the Philippines, Senegal, Tajikistan, Tanzania, Uganda	Michigan State University North Carolina State University Ohio State University Pennsylvania State University Purdue University University of California, Davis Virginia State University Washington State University
<b>Nutrition</b>	Tufts University	India, Malawi, Nepal, Uganda	Harvard University John Hopkins University Purdue University Tuskegee University University of Georgia
<b>Peanut Productivity and Mycotoxin Control</b>	University of Georgia	Ghana, Haiti, Malawi, Mozambique, Zambia	Cornell University Mississippi State University New Mexico State University North Carolina State University Texas A&M University University of Connecticut University of Florida Virginia Polytechnic Institute and State University Washington University School of Medicine
<b>Reduction of Post-Harvest Loss (new)</b>	Kansas State University	Bangladesh, Ethiopia, Ghana, Guatemala	University of Illinois
<b>Rift Valley Fever Control in Agriculture</b>	University of Texas, El Paso	Tanzania	University of Texas Medical Branch, Galveston
<b>Small-Scale Irrigation</b>	Texas A&M University	Ethiopia, Ghana, Tanzania	North Carolina A&T University
<b>Sorghum and Millet</b>	Kansas State University	Ethiopia, Niger, Senegal	Purdue University Texas A&M University Virginia Polytechnic Institute and State University West Texas A&M University
<b>Soybean Value Chain Research (new)</b>	University of Illinois, Urbana-Champaign	Ethiopia, Ghana, Malawi, Mozambique, Zambia	Mississippi State University University of Maryland, Eastern Shore University of Missouri
<b>Sustainable Agriculture and Natural Resource</b>	Virginia Polytechnic Institute and State University	Cambodia, Ecuador, Ghana, Haiti, India, Kenya, Lesotho, Mali,	Kansas State University North Carolina A&T University

<b>Management</b>		Mozambique, Nepal, Philippines, Uganda	Pennsylvania State University University of Hawaii, Manoa University of Tennessee University of Wyoming
<b>Sustainable Intensification (new)</b>	Kansas State University	Burkina Faso, Burma, Ethiopia, Ghana, Senegal, Tanzania	TBD

**APPENDIX 3: Title XII Universities with Direct Awards in FY 2014 Title XII Universities with Direct Awards in FY 2014**

<b>Title XII Universities with Direct Awards in FY 2014*</b>													
	<b>UNIVERSITY</b>	<b>GEOGRAPHIC LOCATION</b>	<b>Title XII AWARD</b>	<b>Other AWARD</b>	<b>A<sup>1</sup></b>	<b>B<sup>2</sup></b>	<b>C<sup>3</sup></b>	<b>D<sub>4</sub></b>	<b>E<sup>5</sup></b>	<b>F<sup>6</sup></b>	<b>G<sup>7</sup></b>	<b>H<sup>8</sup></b>	
AZ	Arizona State University	Worldwide, India, South Pacific, Vietnam	Y			x	x						
AZ	University of Arizona	Burma	Y				x						
CA	San Jose State University	Vietnam	Y				x						
CA	Stanford University	East Africa	Y				x						
CA	University of California System (Berkeley, Davis, Irvine, Riverside, SanDiego)	Worldwide, Ethiopia	Y	Y	x	x	x	x	x				
CA	University of Southern California	Indonesia, Latin America, Caribbean		Y					x	x			
CO	Colorado State University	Worldwide, Africa	Y		x	x							
DC	Georgetown University	Worldwide		Y				x	x				
FL	Florida International University	Rwanda, Tanzania, Georgia, West Africa	Y		x	x		x	x				
FL	University of Florida	South America, Brazil	Y		x	x							
GA	Georgia State University	Worldwide		Y							x		
GA	University of Georgia	Worldwide	Y		x								
HI	University of Hawaii	Indonesia		Y							x		
IL	University of Chicago	Worldwide, Egypt	Y	Y			x		x				
IL	University of Illinois	Worldwide, Georgia, Tajikistan, Ghana, Mozambique	Y		x				x				
IN	Indiana University	Jordan	Y				x						
IN	Purdue University	Worldwide, Afghanistan	Y		x								
KS	Kansas State University	Worldwide	Y		x								
MA	Brandeis University	Worldwide		Y				x					

MA	Harvard University	Bangladesh, India, Indonesia, Asia, East Asia	Y	Y		x	x	x				
MA	Tufts University	Worldwide, East Africa, Malawi, Nepal, Ethiopia, Bangladesh	Y	Y	x	x	x	x			x	
MI	Michigan State University	Worldwide, Burma, Guatemala, Zambia, Cambodia, Mozambique, West Africa, Mali, Tanzania	Y	Y	x		x		x			
MI	University of Michigan	Ghana, Afghanistan	Y	Y			x	x		x		
MD	Johns Hopkins University	Worldwide, South Africa, Pakistan, Guatemala, Tanzania, DRC, Guinea, Liberia, Ghana, Madagascar, Mali, Nigeria, Senegal, Zambia, Malawi, East Africa, Mozambique, Asia, Bangladesh, Cote d'Ivoire, Latin America and Caribbean, Swaziland, Indonesia, Peru, Haiti, China PRC, West Africa	Y	Y	x		x	x				
NC	Duke University	Worldwide, East Africa, Angola	Y	Y			x	x	x			
NC	University of North Carolina Chapel Hill	Worldwide, Bangladesh, Burundi, Nigeria, Ghana, Latin America and Caribbean, Mali, South Africa, Dominican Republic, Guatemala, Asia, Botswana, Guinea, Nepal	Y	Y			x	x				
NJ	Rutgers University	Worldwide, Indonesia	Y			x	x					
NY	Bard College	West Bank and Gaza		Y								x
NY	Columbia University	Worldwide, Indonesia, Ethiopia, Mozambique	Y	Y		x	x	x				
NY	Cornell University	Worldwide, Malawi, Uganda, Bangladesh, Indonesia	Y		x							
NY	New York University	Afghanistan		Y								x
NY	State University of New York	Kenya	Y	Y	x	x		x		x		x

OH	Ohio State University	Tanzania	Y		x							
OR	Oregon Health and Science University	Worldwide		Y				x				
OR	Oregon State University	Worldwide	Y		x							
PA	Pennsylvania State University	Worldwide		Y							x	
RI	University of Rhode Island	Senegal	Y			x						
TN	Vanderbilt University	Latin America and Caribbean, Ecuador, Colombia, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Peru	Y	Y			x				x	
TX	Rice University	Worldwide, Malawi		Y				x				
TX	Texas A & M	Worldwide, Rwanda, South Sudan	Y		x		x					
TX	University of Texas, El Paso	Worldwide, Indonesia	Y		x		x					
VA	College of William and Mary	Worldwide	Y				x			x		
VA	George Mason University	Georgia		Y							x	
VA	Virginia Commonwealth University	Worldwide		Y				x				
VA	Virginia Tech	Worldwide, Indonesia, Nicaragua, Tajikistan, Senegal, Armenia, DRC	Y	Y	x		x			x		
VT	Vermont Law School	East Asia	Y			x						
WA	Washington State University	Worldwide	Y		x							
WA	University of Washington	Worldwide		Y								
WI	Lakeland College	Malawi		Y								x
WI	University of Notre Dame du Lac	Worldwide	Y									
WV	University of West Virginia	Worldwide		Y							x	

A= Agriculture and Natural Resources  
B=Environment and Clean Water  
C=Higher Education and International Networks  
D=Health  
E=Trade, Economic Opportunity, Infrastructure, Energy  
F=Good Governance, Civil Society, Vulnerable Populations  
G=Resilience, Conflict, Disaster preparedness  
H=Basic Education

\*USAID uses an inclusive definition of a Title XII institution for purposes of this report to Congress, as described below. Provisions of the Famine Prevention and Freedom from Hunger Improvement Act of 2000, P.L. 106-373, widened Title XII from preventing famine and establishing freedom from hunger to achieving, “The mutual goals among nations of ensuring food security, human health, agricultural growth, trade expansion, and the wise and sustainable use of natural resources.” The new mandate more broadly defines agriculture and related sciences. Title XII institutions comprise: 1) those listed in the First Morrill Act (1862) or the Second Morrill Act (1890); 2) those listed in the Sea Grant College and Program Act (1966); and 3) other U.S. colleges and universities which: a) have demonstrable capacity in teaching, research, and extension (including outreach) activities in the agricultural sciences; and b) can contribute effectively to the attainment of the objective of Title XII.

## **APPENDIX 4: Success Stories from FY 2014: Development Impacts from the Food Security Innovation Center**

### Celebrating Students in Agricultural Development

The BIFAD announced the 2013 recipient of its Award for Scientific Excellence in a Feed the Future Innovation Lab at its January 2014 public meeting. The recipient -- Elana Peach-Fine -- was honored for her contributions to the Trellis Program, developed as part of the **Feed the Future Innovation Lab for Horticulture led by the University of California, Davis**. The Trellis Program matches local organizations and farmers to graduate students with expertise in horticulture for mutual problem-solving and learning. Trellis facilitates uptake of cutting-edge research, while contributing to the education of the next generation of agricultural development professionals. Trellis has also partnered with A-to-Z Textile Mills in Tanzania to test the utility of using mosquito netting for pest control in the production of fruits and vegetables.



Tanzanian company A to Z Textile Mills provided nets in field trials to find effective crop pest prevention strategies. Photo credit: Brenda Dawson

### Increasing Heat Tolerance in Wheat

The **Feed the Future Innovation Lab for Applied Wheat Genomics, led by Kansas State University**, began the most ambitious project ever undertaken in the application of modern agricultural genomics to wheat improvement. Over 8,700 wheat varieties from the CIMMYT (the International Maize and Wheat Improvement Center) global wheat program were genetically and phenotypically characterized to identify heat-tolerant, high-yielding varieties. Large-scale testing of the best candidates is underway at four locations spanning the wheat production region of the Indo-Gangetic Plain, representing more than 5,000 field plots and one of the largest coordinated field experiments in the region.

### SMART Soybeans in Ghana

The **Feed the Future Innovation Lab for Soybean Value Chain Research, led by the University of Illinois, Urbana-Champaign**, established Sub-Saharan Africa's first Soybean Management with Appropriate Research and Technology (SMART) Farm at the Savanna

Agricultural Research Institute (SARI) in northern Ghana. Tropical soybean is new to most of Sub-Saharan Africa and there is little local knowledge as to its cultivation. The SMART Farm enables the foundational agronomic research so necessary for successful soybean production in the region. The SMART Farm will generate knowledge around soil improvement and preparation, pest management, environmental stewardship, and varietal selection criteria for optimal soybean production. It will also provide scientifically vetted and locally relevant guidance for the nascent soybean industry, while deeply enhancing the institutional capacity of its partner, SARI.

### Better Nutrition and Food Security for Indigenous Communities in Nepal

The **Feed the Future Innovation Lab for Sustainable Agriculture and Natural Resource Management**, led by the **Virginia Polytechnic Institute and State University**, has been working with the indigenous Chepang people in Nepal to improve household food security and nutrition through dietary diversification and improved smallholder production practices. In Nepal 41 percent of children under the age of five are chronically malnourished and anemia is a significant problem, affecting 47 percent of children and 36 percent of women. The Innovation Lab introduced more sustainable mixed farming systems such as maize intercropped with cowpea, mungo bean, or red millet. These conservation-sensitive agricultural practices were paired with better livestock production and management such as community pastures. The combination of cereals and legumes, along with livestock, improved the quantity and quality of food available for Chepang families, leading to nutritional gains, particularly for women and children. In addition, family incomes rose in the community from the sale of surplus agricultural produce.



A Chepang woman manages post-harvest processing of maize in Hyakrang village, Nepal. Photo credit: Jacqueline Halbrendt

### Reducing Risks in New Technology Adoption

The **Feed the Future Innovation Lab for Assets and Market Access**, led by the **University of California, Davis**, is helping smallholder farmers to manage the risk associated with trying new technologies. Smallholder farmers are often reluctant to invest in new technologies even if such

technologies offer opportunities to earn more money. Farmers may be uncertain about how a technology works and what the risks might be in adopting it. If farmers cannot risk adopting a new technology, then the most groundbreaking innovation cannot have impact. While nongovernmental organizations and developing country governments use voucher programs to subsidize farmers' "costs of learning" about new technologies and their returns, the evidence for whether this strategy actually works over time was lacking. To help address this very important question, the Innovation Lab, in collaboration with the International Fertilizer Development Center, launched a multi-year evaluation of a European Union-funded fertilizer voucher program in the maize-growing regions of central Mozambique. The researchers found that, indeed, these voucher programs were a game-changer. With the voucher, fertilizer was cheaper for farmers for two years, during which time they learned how to use it properly and experienced first-hand the economic and personal benefits. Two years after the end of the program, randomly selected farmers who received the vouchers had permanently changed their farming practices, using significantly more fertilizer. They were realizing 15 percent higher yields, a 9 percent greater household food consumption, and 20 percent more assets and savings than a non-voucher control group. Similar results were obtained in Mali with insurance products. Smallholder cotton farmers with insurance expanded the area planted by just under 20 percent and increased yield-enhancing inputs by just over 20 percent compared to controls. Improved food security requires more than scientific innovation. It also requires understanding how farmers make choices and providing mechanisms to reduce risks, thereby permitting farmers to test and adopt promising technologies.

#### Peanuts for Pregnant Women Protect Children in Malawi

**The Feed the Future Innovation Lab for Collaborative Research in Peanut Production and Mycotoxin Control, led by the University of Georgia,** is using a peanut-based Ready-To-Use Therapeutic Food (RUTF) to improve the nutritional status of undernourished pregnant women in Malawi. Pregnant women are a very vulnerable population in Malawi, where maternal deaths are one in 400, the third highest in the world. Childhood stunting begins in the womb, which is why good nutrition during pregnancy has a major impact on a child's future growth, both physical and cognitive. Peanuts are an ideal therapeutic food because, in addition to being high in protein, they are almost 50 percent "good fat," which is a key element in the treatment of acute malnutrition. According to Innovation Lab researcher Mark Manary from Washington University in St. Louis, Missouri, "The beauty of the peanut formulation having so much oil in it is that its energy density is very high. This means a spoonful of peanut-based food is equal in calories to five or six spoonfuls of a traditional cereal like corn or rice. If you are undernourished, you need to get those nutrients in you to catch up. The high oil, low water content of this peanut-based food means that it doesn't spoil sitting around in a mud hut with a grass roof for two or three weeks. The food safety issues here are very small, whereas if you cooked some kind of specialized porridge or dough and left it sitting around you couldn't eat it the next day." Malawian women like the taste of the RUTF and it is very popular.



A woman feeds peanut-based RUTF to her child in Malawi. Photo credit: Mary Manary

### Investments in Improved Cowpea Varieties Pay Off in Senegal

The **Feed the Future Innovation Lab for Grain Legumes Innovation Lab, led by Michigan State University**, is building on decades of U.S. research investment in cowpea and seeing that research yield financial dividends for farmers. In parts of Sub-Saharan Africa cowpea is a very important staple food crop that offers essential nutrients and grows well in hot, dry climates. An economic impact analysis concluded that cowpea varietal improvement has been profitable in Senegal, with an estimated value of net benefits of \$78.6 million and an internal rate of return on investment of 17.9 percent. The improved cowpea varieties offer a number of benefits compared to traditional varieties: for example, a 2010 survey found that median cowpea yields for the improved seed varieties were consistently higher than traditional ones. Both the cowpeas themselves and their pods are edible in the improved varieties, and 87 percent of farmers surveyed say they regard the fresh cowpea pods as an important source of food, while 21 percent of farmers say that the pods provide an additional source of income. The improved cowpeas also mature faster than traditional ones, providing necessary nutrients during the “hungry period” right before the cereal harvest when farming households have typically exhausted their food supplies. There was good adoption of the new cowpea varieties by some 42 percent of the project’s farmers thanks to a focused multilateral effort by the Government of Senegal, the Food and Agriculture Organization of the United Nations, nongovernmental organizations, farmers’ associations, and the Innovation Lab to disseminate them widely.



Senegalese women farmers selling their improved cowpea varieties in the market. Photo credit: Grain Legume Innovation Lab

### Collaboration with NASA Sheds New Light on Nutrition Status in Nepal

Under the auspices of the **Feed the Future Innovation Lab for Nutrition, led by Tufts University** in Boston, Mass., a major effort has been underway at Purdue University to measure connections between child growth and a wide range of determinants that influence health and nutrition. Collaborating with Tufts University, the University of North Carolina and numerous in-country partners, such as Nepal’s Central Bureau of Statistics and the Ministry of Agriculture, Purdue researchers have linked satellite data recorded over the past decade by NASA with Nepal-wide datasets relating to agricultural output, food prices and nutrition. This approach leverages past investments in the collection of “big data,” and takes advantage of new opportunities afforded by the use of geospatial data. Researchers have matched geographic positioning system coordinates and local crop calendars between 2006 and 2011 to identify the extent to which vegetative growth (how “green” the landscape is due to rainfall and temperature levels) is linked to the growth of over 2,300 children less than five years of age. The greenness index is commonly used in famine early warning systems, but has not been widely used to explain patterns of malnutrition across the diverse agroecologies of a country like Nepal. The work has shown that agriculture patterns, determined in large part by rainfall, have an important role to play in nutrition. The level of importance depends largely on the season of a child’s birth relative to harvest season, as well as that year’s yield of local staple foods. The results suggest potential challenges that Nepal could face if climate change substantially shifts growing conditions. In the Terai region, nutrition outcomes could go either way as growing conditions shift, depending on the nature of environmental change and vegetative response. In contrast, in the mountains, child nutrition appears more sensitive to departures from normal growing conditions, with mostly negative results. Ongoing research seeks to better understand the mechanisms at play and potential policy responses.

## African Leadership in Agriculture Nurtured in Michigan

Title XII university investments in human capacity development have paid off in Kigali, Rwanda. In July 2014, Gerardine Mukeshimana was appointed by President Paul Kagame of Rwanda as the new Minister of Agriculture and Animal Resources. Mukeshimana obtained her MS degree at Michigan State University as part of USAID's Partnership for Enhancing Agriculture in Rwanda through Linkages project. After returning to Rwanda to serve both as a lecturer in the Faculty of Agriculture of the National University of Rwanda and coordinator for the World Bank's Rural Sector Support Project, she returned to Michigan State to pursue her PhD in Plant Breeding and Genetics with support from the **Feed the Future Innovation Lab for Grain Legumes**.



Gerardine Mukeshimana, Minister of Agriculture and Animal Resources in Rwanda, accepts an award from BIFAD Chair, Brady Deaton, in 2012 for her research on bean breeding. Photo credit: Mark Varner

## Backyard Fish Ponds for Improved Nutrition

The **Feed the Future Innovation Lab for Collaborative Research in Aquaculture and Fisheries, led by Oregon State University**, is working with the Nepal Agriculture and Forestry University (AFU) to increase fish consumption. AFU established 70 family-run fishponds, all managed by women. In the first year of operation, the ponds produced over 500 kg of fish for household consumption. To build on this success, Innovation Lab researchers from the University of Michigan are training more women in effective aquaculture techniques by establishing women's groups to educate rural Nepalese on fish farming practices and the nutritional benefits associated with household fish production. Due to high female illiteracy rates, the researchers are partnering with four Nepalese schools to construct schoolhouse fishponds that will provide a hands-on educational experience in small-scale aquaculture to local communities. The schoolhouse ponds will be used to cultivate both carp and tilapia, and will be managed by students and teachers at the schools under the supervision of researchers from AFU. Regular trainings will be offered to students, teachers and women's fish farming groups to cover all aspects of aquaculture, from pond construction and management to marketing and nutrition education, including tips on how to prepare and cook the fish. By empowering rural women to

grow and consume fish from their own backyard ponds, their families will have a ready supply of quality fish, four to five times greater than families without ponds.



Smiles abound after the first fish harvest of a small-scale aquaculture development project in the mid hills region of Nepal. Photo credit: Hare Ram Devkota

### Economic Growth for a Former Soviet Satellite

The **Innovation for Agricultural Training and Education Program** is working with the Agribusiness Teaching Center of the International Center for Agribusiness Research and Education in Armenia to create a modern training program that will support sustained economic growth in the agricultural sector, particularly for fruits targeted for regional markets. Students are developing all-important business skills, such as leadership, communication, teamwork, critical thinking, and problem-solving. A fundamental principle of the project is that labor market demand for a skilled workforce should be a key driver for agricultural education and training system transformation. A consortium of universities is implementing the project including **the Virginia Polytechnic Institute and State University, Penn State University, University of Florida, and Tuskegee University.**



The Honorable Harold Rogers  
Chairman  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

This report was prepared in consultation with the Board for International Food and Agriculture Development. If you have any questions concerning this report, please feel free to contact me at (202) 712-4300.

Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Nita M. Lowey  
Ranking Member  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Ms. Lowey:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Kay Granger  
Chairwoman  
Subcommittee on State, Foreign Operations  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Madam Chairwoman:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Thad Cochran  
Chairman  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

Dear Mr Chairman:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Barbara Mikulski  
Ranking Member  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

Dear Senator Mikulski:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Patrick J. Leahy  
Ranking Member  
Subcommittee on State, Foreign Operations  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

Dear Mr. Leahy:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Lindsey Graham  
Chairman  
Subcommittee on State, Foreign Operations  
Committee on Appropriations  
U.S. Senate  
Washington, DC 20510

Dear Mr. Chairman:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Ed Royce  
Chairman  
Committee on Foreign Affairs  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Eliot L. Engel  
Ranking Member  
Committee on Foreign Affairs  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Engel:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

This report was prepared in consultation with the Board for International Food and Agriculture Development. If you have any questions concerning this report, please feel free to contact me at (202) 712-4300.

Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Bob Corker  
Chairman  
Committee on Foreign Relations  
U.S. Senate  
Washington, DC 20510

Dear Mr. Chairman:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

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Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s



The Honorable Ben Cardin  
Ranking Member  
Committee on Foreign Relations  
U.S. Senate  
Washington, DC 20510

Dear Senator Cardin:

Pursuant to Section 300 of the Foreign Assistance Act of 1961, as amended by the Famine Prevention and Freedom from Hunger Improvement Act of 2000, I am pleased to provide the U.S. Agency for International Development's Fiscal Year 2014 Title XII Report to Congress.

This report was prepared in consultation with the Board for International Food and Agriculture Development. If you have any questions concerning this report, please feel free to contact me at (202) 712-4300.

Sincerely,

T. Charles Cooper  
Assistant Administrator  
Bureau for Legislative and Public Affairs

Enclosure: a/s