

**Comments for CSIS Panel**  
**The 2018 Farm Bill: Ensuring U.S. Leadership in Agricultural Research and Development**  
**November 13, 2017**  
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**Introduction/Core Message**

To wrap up the panel discussions today I will address education and advocacy for international agricultural research and development, focusing particularly on ideas around the Farm Bill.

**My core message is that international collaboration is essential for a thriving and healthy U.S. agricultural sector, and that this is how the U.S. can show its leadership, go farther faster, and leverage its R&D resources. This can be encouraged through the Farm Bill and is an excellent investment for the American taxpayer.**

I'll discuss some recent work of the Association for International Agriculture and Rural Development (AIARD) and a new brief by CGIAR -- both pull a number of pieces together and explain the high value of international ag investments to developing countries AND the U.S.

**AIARD and SMART Investments**

AIARD is an association of professionals across the United States and globally who implement programs in international agriculture and rural development. Some of our members are with us here today. Our members are from universities, NGOs, international organizations, government, consulting firms, private sector companies, etc. Anyone who has dedicated their career to hunger alleviation through international agricultural development can join.

“Win-win” international collaboration is a thread that has run through AIARD’s work for years - - documenting how the U.S. investment in international agricultural research, extension, and education helps many needy people overseas AND brings important economic and other benefits back to the United States.

We began this work on win-win investments a number of years ago with a publication of case studies called *Food, the Whole World’s Business*, but we saw a unique set of opportunities this year to carry some of those ideas forward in a new white paper.

We are at an important juncture with: 1) the Farm Bill debate; 2) a new Administration; 3) ongoing appropriations challenges; and 4) a time when global food security is definitely more commonly accepted as a whole of government effort (much greater acceptance that domestic agencies have key roles to play internationally).

We also saw a need for educational efforts to help the American taxpayer understand the international scientific collaboration that is behind our food supply -- that international assistance is not just something that is given “to others” but how our domestic investments work hand in hand with our foreign assistance investments toward global and U.S. food security. So this year we published *SMART Investments in International Agriculture and Rural Development*.

For many reasons, it was time to step back and take a look at the type of world we want. **We submit that, when it comes to something as important as the food that sustains us, and the science and education that powers agricultural innovation, the type of world that we want is collaborative and we must enhance our international collaborative research and development platforms.**

The report is unique because it:

- is being offered by global agricultural development program implementers who are on the front lines overseas;
- highlights that a package of interrelatedness of SMART investments from BOTH domestic and foreign assistance budgets need to be made together; and
- emphasizes that both U.S. and global partners and public and private partners will need to find ways to work more effectively together in key areas

In our AIARD paper we review five **SMART** win-win areas for BOTH U.S. domestic and foreign operations investments (hopefully a memorable acronym). You can pick up a hard copy of this report here today, or view it on line at [www.aiard.org](http://www.aiard.org). There are a few ideas at the end of each chapter for both Farm Bill and foreign operations consideration. In brief summary:

**1-S= Security and stability** -- increase security and stability in developing countries by accelerating investments in agriculture, the primary source of livelihoods in developing country economies; and to also reduce threats to our own country (this section also discusses important humanitarian investments);

**2-M=Markets and trade** -- keep markets open to expand jobs and market opportunities for U.S. farmers; increase technical assistance to developing countries, our trading partners of the future;

**3-A=Adaptation and conservation** -- work together on natural resources challenges to help both U.S. and overseas farmers adapt to environmental stresses and conserve natural resources for future generations;

**4-R=Research and innovation** -- increase research and innovation investments to bring new jobs and increased productivity to both developing countries and the U.S.; expand global research partnerships to meet the needs of a world population of 9 billion people by 2050; and

**5- T=Training and education** -- simultaneously internationalize the U.S. university curriculum to prepare our students for competing in the global marketplace; AND help strengthen developing country higher education institutions, particularly for global food and nutrition security work.

The latter two areas need to be considered together. In the U.S. foreign assistance portfolio in particular, the balance needs to shift to more focus on higher education if we are to have the people qualified to deliver cutting edge, culturally appropriate, agricultural research and development carried out in developing countries.

## CGIAR

CGIAR also has a new brief -- *Five Wins from Collaboration* -- that supports the “win-win” argument beautifully. This 2 pager is also available at the registration desk today.

I am sure most of our audience is familiar with CGIAR -- it is the primary global agricultural research platform, with 15 research centers located around the world, supported by multiple international donors, including the U.S. We work with CGIAR on **reducing poverty, enhancing food and nutrition security, and improving natural resources and ecosystem services.**

This piece focuses on exactly how the U.S. “wins” by working with CGIAR centers across the globe on: 1) increasing global impact from U.S. research; 2) assuring safe, healthy diets across the globe; 3) improving global production systems; 4) creating jobs in the U.S. and overseas; and 5) contributing to U.S. and global security.

There are many stunning facts in this document, here are just a few:

- 60 percent of the wheat planted in our country is from CGIAR varieties;
- For every dollar that the U.S. has provided to CGIAR over its lifetime, the return on investment is valued at \$17;
- Using CGIAR breeding lines, scientists saved the world wheat crop by stopping the spread of Ug99 - a virulent wheat stem rust that threatened 80% of the global wheat supply, including the U.S. crop. In appendix see powerful GIS visual of the “before and after” -- 2010 vs 2013 -- in the horn of Africa. This illustrates ICARDA’s work with the Ethiopian Institute for Agricultural Research and private sector partners, promoting the development and dissemination of wheat varieties resistant to stripe and black stem rusts. The rust resistant varieties were developed by National Agricultural Research Systems, in collaboration with CIMMYT, ICARDA, and the private sector. The success of this crisis-oriented work provides an incredible rationale for keeping a global collaborative system in place and well-funded;
- And of course – agriculture is the world's single largest employer, providing livelihoods for 40% of the population. The sector deserves very significant investment.

## Farm Bill Example

So how are some of these ideas playing out around the Farm Bill? Due to the limited time today I will just give one example -- support for USDA/NIFA:

-- **For Farm Bill discussions, AIARD joins the chorus of many other wonderful supporters of USDA/NIFA’s Agriculture and Food Research Initiative (AFRI)** such as SoAR, the Association of Public and Land-grant Universities, the Farm Journal Foundation, Friends of AFRI, AgREE, etc. Though its recent *Challenge of Change* report, APLU has called attention to the need for transdisciplinary international approaches to food security within AFRI and other research and development efforts.

--There is a lot going on already that involves international work at USDA: NIFA programs in collaboration with the land-grant universities, Agricultural Research Service, Forest Service, Economic Research Service, Foreign Agricultural Service, and others all have programs...but the international research portion is relatively small. **Presently, across all of NIFA, grant awardees have identified that there is international collaboration or activity in only 3 percent of active NIFA awards.**

--**The U.S. can only maintain its leadership by adding resources to and internationalizing its domestic programs.** AIARD especially supports the Farm Journal Foundation's recommendation to **add international language to section 1402** in order to strengthen international aspects of the NIFA, ARS, and other agencies.

**Section 1402 of the Farm Bill** (see Appendix for final text) is about the purposes of agricultural research, extension, and education and could be enhanced *by adding:*

*(5) Support international scientific collaboration to advance food and agricultural interests of the United States. [Optional addition...such as addressing emerging plant and animal diseases, improving crop varieties and animal breeds, and improving food production systems]*

This would show that international work at USDA is **ENCOURAGED** by policy makers, not just permitted. It would facilitate more collaborative science, which is mutually beneficial to both U.S. and overseas producers -- e.g. on plant and animal diseases, food safety, improving crop varieties, improving food production, addressing natural resource concerns such as water. It could also strengthen the collaborative relationship between USDA and USAID on agricultural research and innovation, both in terms of research planning and execution.

-- **We would love to see a program to strengthen the capacity of our U.S. young people to work internationally.** We have had some programs funded in the past -- USDA/NIFA's ISE grants program built capacity among young professionals, and at USAID we had funding for a CGIAR/university linkages program that many young scientists tapped, but we no longer have these programs and this is an area that needs attention.

- **While not strictly connected to Farm Bill efforts, we applaud NIFA's recent exchange of letters with CGIAR System** to work on issues of mutual interest (see the NIFA International Programs website for a copy of the letters). This could include opportunities for:

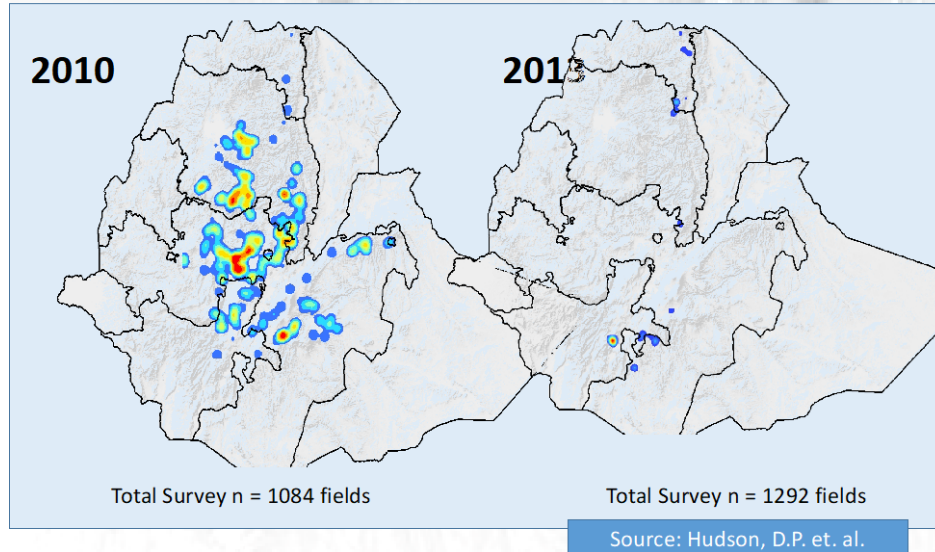
- NIFA-funded researchers to spend time undertaking research at CGIAR centers on sabbaticals, etc. and
- CGIAR-funded researchers and NIFA-funded researchers to share information, and work together on proposals for collaborative research.

**In conclusion, not all of the innovation we need in agriculture will come from our own labs. International collaboration in agricultural R&D is not an optional part of domestic policy; it is an imperative and needs more resources devoted to it.**

## Appendix

### Stripe rust outcomes in Ethiopia: 2010 & 2013

#### Stripe Rust Hotspots - From Survey Data



#### Full Farm Bill Section 1402 with suggested amendment:

- **Section 1402** PURPOSES OF AGRICULTURAL RESEARCH, EXTENSION, AND EDUCATION. The purposes of federally supported agricultural research, extension, and education are to—
- (1) enhance the competitiveness of the United States agriculture and food industry in an increasingly competitive world environment;
- (2) increase the long-term productivity of the United States agriculture and food industry while maintaining and enhancing the natural resource base on which rural America and the United States agricultural economy depend;
- (3) develop new uses and new products for agricultural commodities, such as alternative fuels, and develop new crops;
- (4) support agricultural research and extension to promote economic opportunity in rural communities and to meet the increasing demand for information and technology transfer throughout the United States agriculture industry;
- (5) improve risk management in the United States agriculture industry;
- (6) improve the safe production and processing of, and adding of value to, United States food and fiber resources using methods that maintain the balance between yield and environmental soundness;
- (7) support higher education in agriculture to give the next generation of Americans the knowledge, technology, and applications necessary to enhance the competitiveness of United States agriculture; and

- (8) maintain an adequate, nutritious, and safe supply of food to meet human nutritional needs and requirements.

- **Possible amendment—**

Section 1402 of the Food and Agriculture Act of 1977 (7 U.S.C. 3101) is amended by adding a new item (5) as follows:

*(5) Support international scientific collaboration to advance food and agricultural interests of the United States. [Optional addition...such as addressing emerging plant and animal diseases, improving crop varieties and animal breeds, and improving food production systems]*

[renumber existing paragraphs (5) through (8) as paragraphs (6) through (9)]