

Dr. Brady J. Deaton  
BIFAD Chair

May 14, 2014

1



**Board of International Food and  
Agriculture Development (BIFAD)  
Vision for USAID Innovation Labs  
and Strategic Partnerships to  
Achieve *Feed the Future* Goals**

2



## Today's Talk

- Introduction to BIFAD
- USAID-university linkages
- Research for development
- USAID priorities in grain legumes
- Synergies, collaborations, and networks



3



## Introduction to the BIFAD

4



## What is the BIFAD?

- **Board for International Food and Agricultural Development**
- BIFAD advises USAID on agriculture and higher education issues pertinent to food insecurity
- BIFAD was established by Title XII of the Foreign Assistance Act
- President appoints members from the academic and business communities (4 out of 7 from universities)
- BIFAD and Title XII recognize the critical role of land-grant institutions and support their representation in USAID development programs

5



## Who Serves on the BIFAD?

Advisory committee to the U.S. Agency for International Development (USAID). Advise USAID Administrator on strategic policy matters involving food security and agricultural development. Members are appointed by the President.



Brady Deaton, Chair  
Chancellor Emeritus  
U. of Missouri



Gebisa Ejeta  
Distinguished Professor  
Purdue U.



Waded Cruzado  
President  
Montana State U.



Harold L. Martin, Sr.  
President  
North Carolina A&T



Marty McVey  
President  
McVey Associates

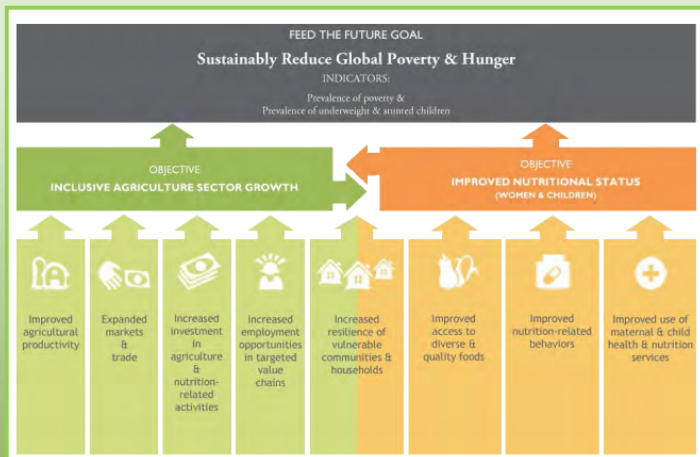


Catherine Bertini  
Professor  
Syracuse U.

6



## Feed the Future: Reduce Extreme Poverty



7



## Feed the Future: Focus Countries

- 19 focus countries, selected based on
  - Level of need
  - Opportunity for partnership
  - Potential for growth
  - Potential for regional synergy
  - Resource availability



8



## Centrality of Human and Institutional Capacity Development (HICD)

- Local capacity drives productivity in all sectors
  - Education, research, extension, agribusiness, universities, NARIs, ministries, policy institutes, private business, and government
- New capacity is essential to transform coming challenges into opportunities
  - Climate change, urbanization and rural exodus, global population growth and food demand, environmental degradation

9



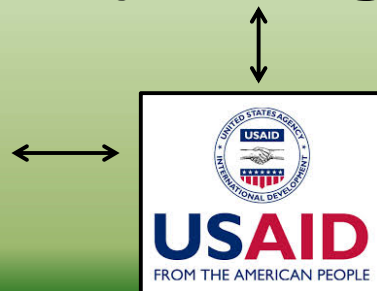
## HICD in Research: Vision

- Improve the quality of human resources at developing country universities and institutes
  - Ripple effect across entire agricultural innovation systems
- Foster a culture of excellence, continuous learning, professional development, and innovation
- Build accountable, learning organizations responsive to national and regional priorities
- Establish collaborations and connectivity across public sector, private sector, and civil society

10



## USAID-University Linkages



11



## USAID - University Linkages: *Cui bono?*

- USAID
  - Harnesses the talent of innovative researchers and students globally
  - Connects with future leaders for vision sharing and relationship building
  - Ensures that international students in food security are trained to a world-class standard
  - Ensures that American students understand the global food security context

12



# Cui bono? **Everyone**

## • Universities

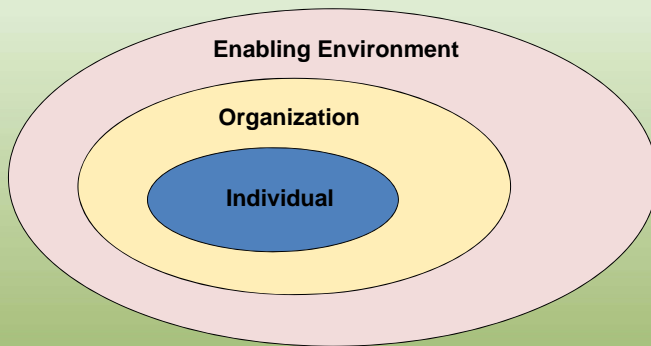
- Gain support and focus for their mission
- Internationalize and enrich their campuses
- Deepen their scholarship with global perspectives
- Establish partnerships for mutual institution building and engagement



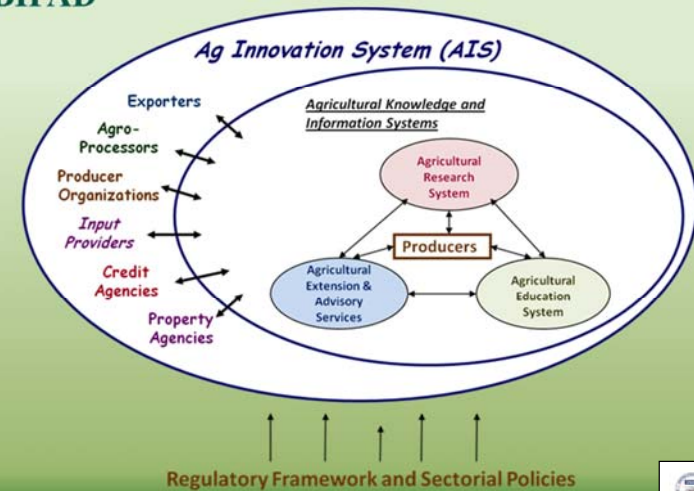
# Research for Development



## Investment Model to Support Smallholders



## Investments Across Full AIS Framework





- 
- ## Food Security Innovation Center
- Key programmatic themes
    - Climate-resilient cereals, legume productivity, advanced approaches to combat pests/diseases, nutritious and safe food, markets and policy, sustainable intensification, HICD
  - Cross-cutting themes
    - Gender and climate change
  - Partners
    - Universities, CGIARs, private sector, USDA, NARIs, and NGOs
  - Scaling out
- 18

## Innovation Laboratories for Collaborative Research

### 25 Laboratories with Strong Research and HICD Focus

- 60 colleges and university partners in 38 states, including 13 minority serving institutions
- Globally competed, several developing country institutions are now leading projects
- 14 labs target mission-selected local value chains
- 3 labs leverage significant resources and technology from private companies




19

## Grain Legumes

20



## Why Grain Legumes?

- Critical to improving soil fertility and intensifying agriculture via nitrogen management, raising subsequent yields
- Legumes drive smallholder incomes
- Represent an important mechanism for global poverty reduction and enhanced nutrition



21



## Feed the Future Grain Legume Targets

- Expand climbing bean range in Africa
  - Yields of 3 ton/hectare
- Enhance targeting of improved rhizobia
- Manage key pests and diseases of legumes in select systems
  - South Asia: lentil and mungbean
  - West Africa: Bt cowpea

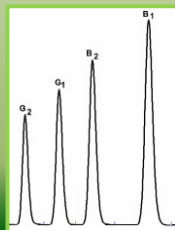
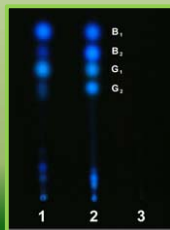


22



## Eliminate Mycotoxin Contamination

- In tropical conditions, fungus is problematic both pre- and post-harvest
- Powerful anti-nutrients, undermining immune response and overall health
- Aflatoxin resistance is a key goal
  - Upstream effort: develop new traits that directly combat fungus
  - Downstream effort: examine opportunities for biocontrol, *e.g.*, Aflasafe



23



## Reduce Post-Harvest Losses

- Pests contribute to post-harvest losses
  - Protect vegetable crops via biocontrol strategies
- Poor storage conditions contribute to post-harvest losses and loss of nutrient value



24



## Synergy, Collaborations, and Networks

**syn·er·gy** [sin-er-jee]\*

The interaction of elements that when combined produce a total effect that is greater than the sum of the individual elements or contributions



\*Dictionary.com

25



## Why are synergies so important?

- Feeding the future, enabling smallholders to move ahead
  - Needs of farmers must guide research priorities
  - Mutual accountability
- Improving nutrition for all children
- Providing access to:
  - Capital
  - Up-to-date knowledge and technology
    - Technology adaptation to generate employment
- Ensuring social and political justice

26



## Emerging Trends and a Shifting Landscape

- Evolving development landscape with new constraints and opportunities
- Local context, priorities, ownership and leadership are critical
- Donor environment is more plural and diverse
- Shrinking ODA, growing FDI
- Greater civil society input required in sharpening focus and shaping priorities

27



## Successful Synergy: Soybean Innovation Lab



@

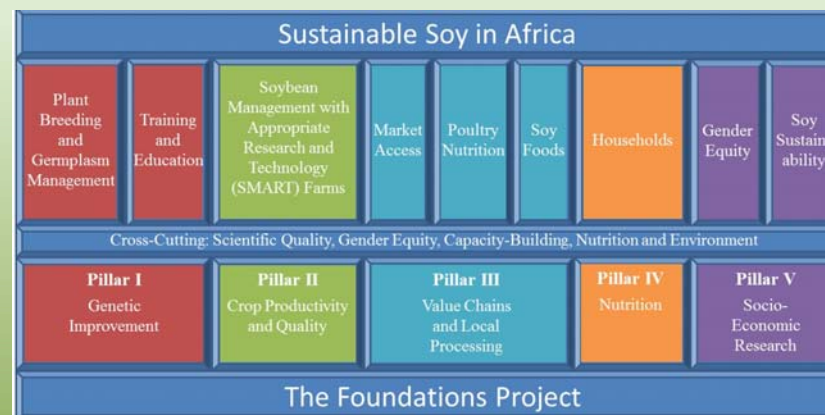


- **Plant Science:** expertise in seed composition, physiology, seed management, and teaching
- **Social Sciences:** expertise in social science/plant science research for development, value chain development

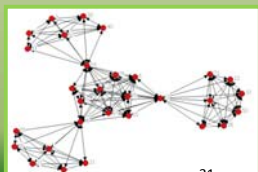
28



## Successful Synergy: Soybean Innovation Lab



## Social Science Value-Addition



- Production & consumption trait preferences by:
  - gender
  - children/youth
  - rural-urban
- Knowledge diffusion – tools will be there (e.g., mobile phones, apps)
  - Is agricultural knowledge well organized?
  - Sensitive to needs and preferences of women/children?
  - How to rapidly push through pipeline for uptake?
- Next generation engagement – MU capstone students
- Capacity building of science-social science team for sustainability



## SIL Research Network

- International Institute for Tropical Agriculture
- Catholic Relief Services
- International Fertilizer Development Center
- Generation Challenge
- World Initiative for Soy and Human Health
- University of Ghana
- Savanna Agricultural Research Institute
- USDA-ARS
- Agricultural Research Institute of Mozambique



## CGIAR Research Program on Grain Legumes

The CGIAR Research Program on Grain Legumes is an ambitious new international program to improve eight crops that are vital to the health, prosperity and resilience of hundreds of millions of poor people across the developing world. We're proud to be launching the Program, and hope you'll join us in our quest.

### Interview with the Director, Grain Legumes



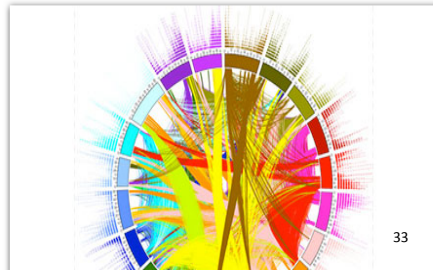
**Dr Noel Ellis** a British national, joined ICRISAT as Director of the CGIAR Research Program on Grain



## OPEN FORUM Science in Grain Legumes

Organized by the CGIAR Research Program on Grain Legumes

6<sup>th</sup> July 2014  
Saskatoon, Canada



## Challenges

- Despite success stories, synergies between partners are not always easy to achieve and sustain
  - Different disciplines with different priorities
  - Common “language” may be lacking
  - Different understanding of work process and objectives
- In order to work across an entire value chain transdisciplinary teams are critical
- How can we do better?
- Can we frame a more intentional process?



34



## Synergy: Challenges as Opportunities

- Produce world-class agricultural scientists serving local needs
- Close collaborations between US universities and developing country universities
  - USDA, CGIAR, NGOs, Private Sector can contribute
  - All relevant disciplines must be tapped
  - Innovate approaches must be explored
- University scientists must understand and be responsive to needs of the NARs, as well as the private sector
  - Land grant model
  - Connectivity among all stakeholders
    - All are full partners

35



Thank you for your attention.



Questions?

36