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

Today’s Talk

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

**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 7 from universities)
- BIFAD and Title XII recognize the critical role of land-grant institutions and support their representation in USAID development programs

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.

Feed the Future: Reduce Extreme Poverty

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

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

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
Cui bono? Everyone

BIFAD

- 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
Five Strategic “Change Levers”

- Policy and Data
- Research
- Innovation
- Extension
- Entrepreneurship

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

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

Grain Legumes
**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

**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

**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

**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
Synergy, Collaborations, and Networks

**synergy** [sin-er-je]*

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

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

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

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
Successful Synergy: Soybean Innovation Lab

BIFAD
Mizzou
University of Missouri

Mississippi State University

University of Illinois

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

Social Science Value-Addition

BIFAD

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
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?

Synergy: Challenges as Opportunities

**BIFAD**
- 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

Thank you for your attention.