Update on USAID’s FTF Research Programs
BIFAD Meeting, April 13, 2012

FEEDING 10 BILLION:
A Dialogue between Feed the Future and the International Research Community

By Simon Nicholson, American University
Transforming Key Production Systems

- Integrate global technology with site-specific natural resources, social science, and markets
- Link CGIAR, CRSPs, NARS, private sector, universities
- Integrate research with development interventions
  - Rice-Wheat system of South Asia
  - **East Africa** highlands system
  - Southern & East African maize-based systems
  - **West African** Sudano-Sahelian systems
Provide pathways out of hunger and poverty for small holder families, particularly for women and children, through sustainably intensified farming systems that sufficiently improve food, nutrition, and income security and conserve or enhance the natural resource base.
Africa Research in Sustainable Intensification for the Next Generation

Supported by USAID as part of the US Government’s Feed the Future global food security initiative

As part of the US government’s Feed the Future initiative to address global hunger and food security issues in sub-Saharan Africa, the US Agency for International Development (USAID) is supporting three multi-stakeholder agricultural research projects to sustainably intensify key African farming systems.

The overall aim is to transform agricultural systems through sustainable intensification projects in three regions of Africa (see map):

- Sustainable intensification of cereal-based farming systems in the Sudano-Sahelian Zone of West Africa — led by IITA
- Sustainable intensification of crop-livestock systems to improve food security and farm income diversification in the Ethiopian highlands — led by ILRI
- Sustainable intensification of cereal-based farming systems in East and Southern Africa — led by IITA

In 2012, the 3 Africa projects were launched with design workshops.

Check HERE for the decisions/actions/follow up activities

News from the Africa RISING Program

- Sustainable intensification of cereal-based farming systems in East and Southern Africa
- Sustainable intensification in the Ethiopian highlands: Project Design Workshop — Project outline and concepts
- Sustainability intensification of crop-livestock systems to improve food security and farm income diversification in the Ethiopian highlands: Draft concept note
- Sustainable intensification and diversification of rice-based inland valley systems in the national rice basket of Tanzania: Draft concept note
- Sustainable intensification of maize-livestock integrated farming systems in Eastern and

Africa RISING outputs

- Sustainable crop-livestock intensification to overcome poverty
- Experts to design new agricultural research project for Ethiopian highlands
- Transforming Ethiopian highlands agricultural systems
- Sustainable intensification of crop-livestock systems to improve food security and farm income diversification in the Ethiopian highlands: Project Design Workshop — Project outline and concepts
- Sustainable intensification and diversification of rice-based inland valley systems in the national rice basket of Tanzania: Draft concept note
- Sustainable intensification of maize-livestock integrated farming systems in Eastern and
Africa RISING

1° research scope

2° research scope

Maize

Horticulture

Livestock

Legumes

Seeds & Breeds

Equipment / fertilizer

Extension

Production

Post-harvest storage

Milling / packaging

Marketing

Strong, formalized linkages
‘Quick Start’ projects: Action in the first year

• Immediate projects – results by September 2012
• Gain knowledge and partnerships while research model and information system frameworks are developed for Fall 2012
  • Integrate multiple and mutually supportive farming system components or build new partnerships that will facilitate the longer-term Africa RISING research program
  • Address the priorities of the USAID missions, and involve substantive collaboration between at least three organizations
• 6 projects in the Ethiopian Highlands (totaling $1.1 million)
• 10 projects in East and Southern Africa (totaling $1.8 million)
‘Quick Start’ projects: Action in the first year

EXAMPLES:
• Ethiopian Highlands: “Regionalizing Fertilizer Rate Recommendations”
  • IFPRI (Lead Center), SANREM CRSP, Agriculture Transformation Agency, EIAR, University of Tennessee

• East & Southern Africa: “Value chain analysis of grain legumes”
  • IITA (Lead Center), Dry Grain Pulse CRSP, Sokoine Univ., TZ Ag. Res. Inst., Univ. Malawi, Zambia Ag Res. Inst., SIMLEZA project, Nat’l Smallholder Farmers Assoc.-Malawi, ICRISAT, CIAT

• West Africa: “Increased nutritional and economic levels of women & children”
  • ICRISAT (Lead Center), Peanut CRSP, INTSORMIL CRSP, SANREM CRSP, IER, IITA
• Indogangetic plains home to 1/7 of world population, dominated by rice-wheat, rice-rice, rice-cotton systems
• Need to intensify production in context of major water, land, soil and labor constraints.
• Couple improved varieties with resource conserving technologies, small scale mechanization, and diversification
• Example interventions include
  • Laser Land Leveling – 20% less water needed for irrigation
  • Residue Retention – reduces erosion and unproductive evaporative moisture loss
  • Relay cropping – planting wheat into standing cotton shows 10% gain in cotton yield (additional pick) and increase wheat yield of 1 t/ha
25,000 producers adopting conservation agriculture based technologies and 60,000 households benefiting

New partnerships with organizations like Digital Green (e-extension), seed companies for new hybrids, storage container producers.

Policy, demonstration and outreach work under CSISA shifting subsidy policies (e.g. shifting subsidy to RCT’s in Bihar)

Developing “transition” strategies for hubs in Northwest India moving to private sector and Opened new hub” in Orissa, India

Scaling up activities in Nepal to provide technical support to prime FtF contractor

Continuing large expansion of presence in Bangladesh to include coastal areas with 4 new hubs and linking with MYAP’s.

Proposal submitted to USAID Pakistan for a “CSISA-like” model with the Pak Ag Research Council, CGIAR, and provincial research organization
Agriculture-Nutrition Linkages: Integrating Nutrition into Agricultural Research Design

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Recent Developments

Climate-resilient Cereals

• Call closed February 2012 for concept notes to develop climate resilient cereals through USAID’s Global Development Alliance
• Develop new climate resilient cereal varieties with enhanced abiotic stress tolerance and improved yield
• Establish partnerships that leverage resources, including technical assistance or sharing costs, to improve agricultural productivity for small holders
• Support product development of technologies that can be applied globally in support of Feed the Future Initiative objectives
• Leverage resources at least 1:1
Recognizing the importance of public sector participation and facilitation of wheat research, supporting comprehensive suite of research programs, especially in improved climate tolerance

- Screening germplasm for heat and drought tolerance at hotspots in Mexico, S. Asia and integrating into breeding programs under CSISA and WHEAT CRP
- Development of drought tolerance in Wheat using biotechnology via private-public partnership
- Screening for wheat stem rust variants and resistant materials in partnership with USDA – ARS cereal diseases lab and Borlaug Global Rust Initiative
- Climate resilient wheat proposals under new climate resistant cereals proposal
Recent Developments

Water and Food Security Intersection

• Gap in current portfolio: irrigation, especially small-scale systems, reuse, tools
• Essential element of Sustainable Intensification
• Convening experts in summer 2012 to identify high-priority researchable issues in small-scale water management for smallholder farmers
• Water and Livelihoods Initiative, Univ. linkages