

# Feed the Future Sustainable Intensification Innovation Lab (SIIL)

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Collaborative Research on Sustainable Intensification



Transforming farming systems for smallholders



**USAID**  
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**FEED THE FUTURE**  
The U.S. Government's Global Hunger and Food Security Initiative

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# What is Sustainable Intensification ?

- Increasing food production from existing farmland while minimizing negative impacts on environment.
- Sustainable intensification practices optimizes the production of farming systems per unit area per unit time.
- The combination of terms “sustainable” and “intensification” indicates that desirable outcomes around both more food and improved environmental goods and services can be achieved simultaneously and by multiple means using systems approach.

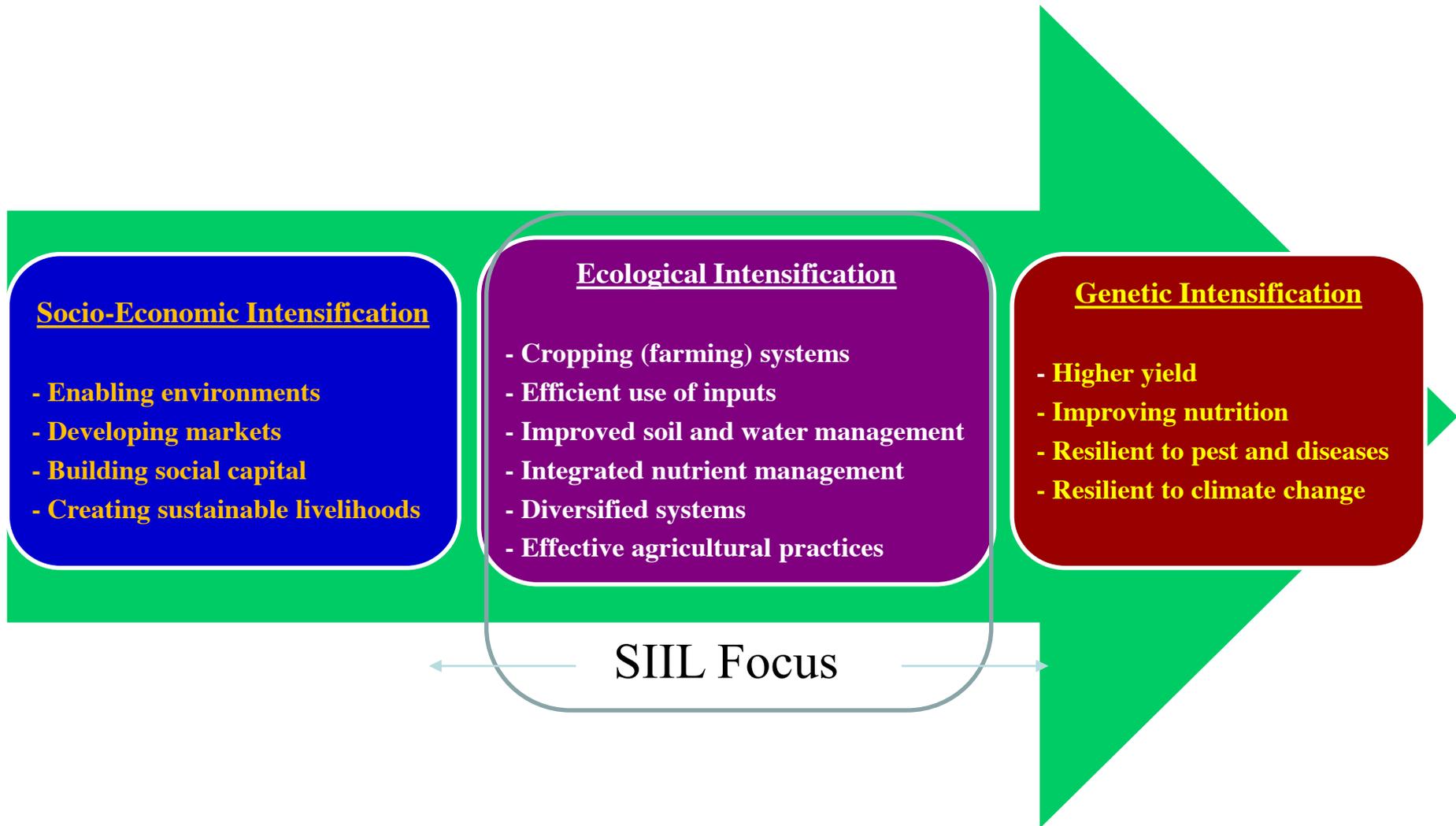


# Why Sustainable Intensification?

- Limited availability of arable land.
- Limited availability of water.
- Limited availability of labor.
- Increased land degradation.
- Threat of climate change and variability.
- In the past – focus was on intensification only – more land (from forests, grasslands), increased inputs, but these led to increased degradation, slowed productivity gains, and practices were not sustainable.
- New paradigm of SI focuses on increasing production and environmental sustainability.



# Sustainable Intensification: Components



The Montpellier Panel 2013. Growth with Resilience: Opportunities for African Agriculture. London: Agriculture for Impact.

## Creating Sustainable and Resilient Livelihoods

# Our Vision Statement

Vision of KSU Feed the Future Sustainable Intensification Innovation Lab is to become global leader in interdisciplinary research, knowledge sharing and capacity building on sustainable intensification producing measurable impacts on improving farm productivity, income and nutrition of smallholder farmers.



# Focus on Smallholder Farmers

- Globally 70% of farmers are smallholders (<1 ha).
- Smallholders manage >80% of 500 million farms.
- Smallholders produce 80% of the food consumed.
- Smallholders are key to sustainable food systems.
- In Africa & Asia >50% of smallholders are food insecure and undernourished.
- Transformation of smallholders is required for global food and nutritional security.



# Six Focus Countries



Senegal



Ethiopia



Bangladesh



Burkina Faso



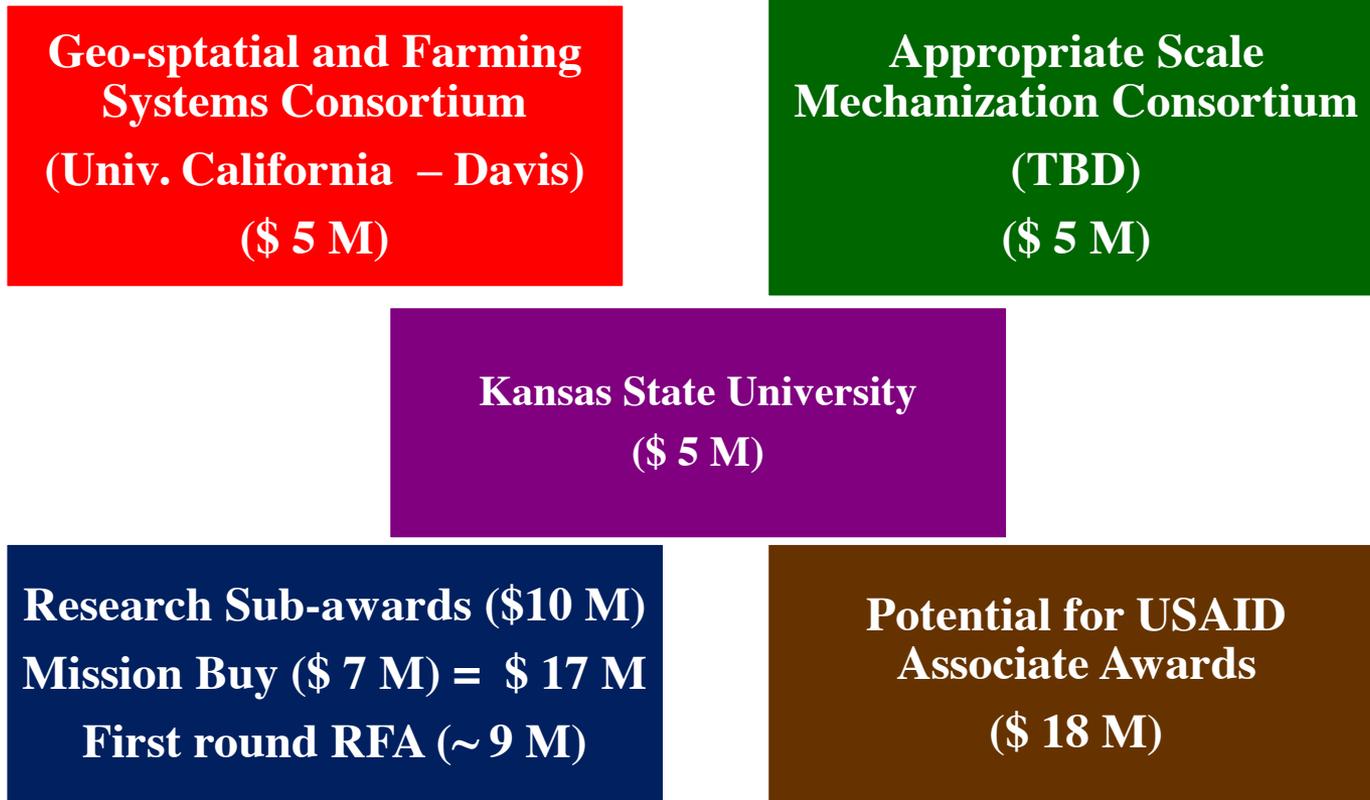
Tanzania



Cambodia

# Overview of Budget and Funding Opportunities

“Leader with Associates” Cooperative Agreement: Oct. 2014 – Sept. 2019



Management Entity (KSU): \$ 5 M

Geospatial and Farming Systems Consortium (UC Davis): \$ 5 M

Appropriate Scale Mechanization Consortium (TBD): \$ 5 M

Research Sub-Awards (\$10 M) and Mission Buy in (\$ 7 M): \$ 17

Associate Award (Missions): \$ 18 M

**Total Authorized: \$ 50 M**

# Broad Objectives

- **Objective 1:** Use geospatial tools to identify needs, opportunities for intervention, scaling and to assess impact.
- **Objective 2:** Improve production and nutrition using integrated and environmentally sustainable technologies.
- **Objective 3:** Identify enabling conditions and social networks and support systems to enhance sustainable intensification.
- **Objective 4:** Develop holistic platforms for communication, knowledge sharing and capacity building of all stakeholders.

These should be based on host country priorities, gender sensitive, nutrition sensitive, capacity building needs and build for monitoring and evaluation.

Must align with USAID mission strategic plan and ZOI.

# Specific Areas of Inquiries

- Stocktaking, mapping, analyses and guidance on sustainable intensification. These will help priorities for research portfolio with highest impact and monitoring evaluation.
- Farming Systems Research:
  - ✓ *Integrated crop and livestock systems.*
  - ✓ *Sustainable and efficient use of land, soil, nutrient and water management systems.*
  - ✓ *Climate-smart and resilient farming systems.*
  - ✓ *Increasing biodiversity.*
- Linking sustainable intensification impacts across multiple scales (farms to landscapes).
- Sustainable intensification impact on gender and nutrition.
- Engaging youth in agriculture and in service providing sectors (including technology and mechanization).



# Capacity Building

- Long-term training degree (MS and PhD) at universities (US or regional) funded through SIIL.
- Participation of long-term trainees in a joint training sessions in US.
- Short-term training as visiting scholars in US or other institutions.
- Short-term training in target countries by NARS / Universities scholars (training the trainers).
- Short-term training in host countries aimed at smallholder farmers and value chain personnel.
- Establish knowledge sharing platforms and networking to disseminate information to all clienteles and partners including policy makers.



# Status: Staffing and Recruitment

## Management Entity:



**Program Director**

**Associate Program Director**  
(Finalists – Interviews – May)

**Farming Systems Nutrition Faculty**  
(Identified – Start in 10 August)

**Program Officer**  
(Identified – Start 10 July)

**Business/Financial Officer**  
(Katy Bach – Started February 2015)

**Regional Coordinators (3)**  
*East Africa – Tanzania (CIAT) –  
Finalists Interviews (May 2015)*  
*Asia – Bangladesh (CIMMYT) –  
Finalists Interviews (May 2015)*

*West Africa – Senegal (ISRA)*

## Advisory / Supervisory:



**Chair – External Advisory Board**  
(total pool of 19 scholars)  
Year 1: 8 identified



**Dean and Director – College of  
Agriculture**



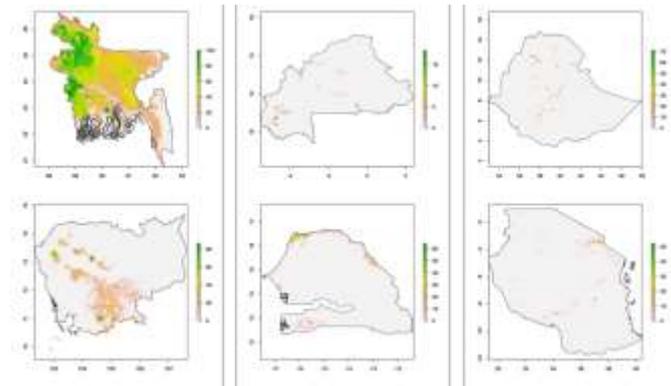
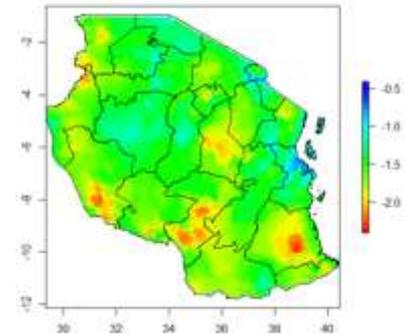
**Department Head - Agronomy**



**Associate Dean – International  
Programs - College of Agriculture**

# Status: Geospatial and Farming Systems Consortium

- University of California – Davis: Robert Hijmans.
- Hired students and mapping activities started to feed research awards RFA.
- Geospatial Data Analyst / Manager – Identified – Start 15 April.
- Program Coordinator – Identified – Start 01 August.
- Consortium members targeted research started and ongoing.
- RFAs / commissioned research will be issued August and September.



# Status: Appropriate Scale Mechanization Consortium

- On-line submission systems created and functioned well for both concept notes and full proposals.
- Developed on-line review system for concept and full proposals.
- Applications for concept notes closed on 23 January; Tremendous response – (15 US universities responded).
- Shortlisted five universities to submit full proposals.
- Submission deadline for full proposal is 24 April 2015.
- Consortium leader will be identified by 01 July 2015.



# Status: Research Sub-Awards

- Stakeholders meetings and SWOT (Strengths, Weakness, Opportunities and Threats) analyses – completed in Tanzania, Bangladesh and Cambodia.
- Developed on-line review system for concept notes and full proposals – system is ready to go.
- RFA will be released ~ 01 June for concept notes:  
Deadline: ~30 June.
- Shortlisted universities to submit full proposals identified: ~15 July.
- Submission deadline for full proposal: ~30 August 2015.
- Awards identified by 30 September 2015.
- Call open for all institutions (US, NARS, Universities and Research Institutes) – should be collaborative program.
- Up to 10 to 12 projects will be funded



# Thank you and Questions

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