WELCOME

Food Security and Agriculture Core Course
AGRICULTURE RESEARCH AS A DEVELOPMENT TOOL

Food Security and Agriculture Core Course

Photo: Ron Savage/USAID
OBJECTIVES

• Understand what agricultural research is and why it is important to achieve global food security development goals.
• Understand how research programming is distinct from development programming (greater geographic/temporal scale, pipeline model of R&D investments).
• Become familiar with the global agricultural R&D landscape and know where to find relevant information and resources to support regional- or country-level strategy and programming.
• Identify and articulate research priorities in a local country context.
• Incorporate research outputs and programming into USAID’s bilateral food security efforts through a variety of approaches and mechanisms.
WORLD CEREALS PRODUCTION AND YIELDS

Million metric tonnes / million hectares

Tonnes / hectare

Production (MMT)
Yield (Tonnes/Ha)
Area Harvested (Million Ha)


SOURCE: UN Food and Agriculture Organization
WHY IS FOOD SECURITY RESEARCH IMPORTANT?

Food security research generates *innovations* (technologies, practices, policies and knowledge) that—when enabled by functional policies, markets and institutions—are powerful drivers of long-term food security.

Ultimately, research outputs help to:

- Reduce poverty
- Improve production and availability of staple and diverse foods
- Drive prosperity
- Reduce, manage, mitigate risks
FOOD SECURITY RESEARCH: RUNNING TO STAND STILL

- New pests and diseases emerge, climate and agroecological conditions shift, and market and consumer preferences change.
- Continued research is needed to protect food security gains already made, let alone enable continued improvement.
FOOD SECURITY RESEARCH UNDER FEED THE FUTURE

• The Global Food Security Act (GFSA) explicitly called for U.S. investments to “leverage U.S strategies and investments in … science and technology, agricultural research, and extension.”

• The Global Food Security Strategy (GFSS) emphasizes that research investments “ensure a pipeline of innovations, tools, and approaches designed to improve agriculture, food security, resilience, and nutrition priorities in the face of complex, dynamic challenges.”

WHAT IS RESEARCH?

- People use the word “research” in many different ways. How do you define it?
- Would you modify or change this definition to address “food security research” in the context of Feed the Future?
- What is the difference between “research” and “monitoring and evaluation”? How is the Feed the Future “Research Strategy” different from the Feed the Future “Learning Agenda”? 

The Research and Development Pipeline is a simple way to describe the process by which innovations (which can include new or improved technologies, processes, policies or knowledge) are developed and applied in order to achieve food security impacts.
1) **Research takes time!** Today’s USAID development programs leverage the outputs of research investments made 5–20 years into the past.

FROM INNOVATION TO IMPACT: 4 KEY TAKEAWAYS ABOUT FTF RESEARCH INVESTMENTS
FROM INNOVATION TO IMPACT: 4 KEY TAKEAWAYS ABOUT FTF RESEARCH INVESTMENTS

Innovations
(technologies, practices, policies, knowledge, etc.)

Research
Basic  Applied  Adaptive

Development
Scaling
Enabling Environment

Prosperity
Nutrition
Resilience

Innovation handoff

EXAMPLE OFSP
Human nutrition; 'tater biology (~1900+)

OFSP breeding (~1980–2000)


FtF Scaling (~2011–now)

1) Research takes time! Today's USAID development programs leverage the outputs of research investments made 5–20 years into the past.
1) **Research takes time!** Today’s USAID development programs leverage the outputs of research investments made 5–20 years into the past; *today’s research investments will deliver innovations that address challenges that emerge 5–20 years into the future.*
2) **The most efficient geographic scope for research will vary.** Depending on the stage and nature of the research, and the scale and scope of the potential research output, research activities may best be focused (and funded) centrally, regionally or bilaterally.
3) **Reality is more complicated!** Downstream actors also influence upstream research processes and most innovations undergo many cycles of research, testing, feedback and refinement.
4) The R&D process occurs in the context of overlapping national, regional and global Agricultural Innovation Systems. Different actors contribute at different stages of the R&D process; as an innovation matures, a variety of partners may contribute in different ways over time or in different geographies.
FROM INNOVATION TO IMPACT: 4 KEY TAKEAWAYS ABOUT FTF RESEARCH INVESTMENTS

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Informed by these key takeaways, the central Feed the Future research portfolio balances:

- **Timeline:** “Downstream” activities with near-term impact, some targeted “upstream” activities with big potential long-term impacts.

- **Geography:** Primarily global/regional scope, with some targeted country-level investment (e.g., to facilitate innovation handoff or catalyze broader regional innovation).

In addition to advancing a broad food security research mandate, central research investments aim to leverage, complement, and support Mission objectives in research, HICD, technology-scaling and development.
THE FEED THE FUTURE RESEARCH PORTFOLIO

Central USAID food security research investments are loosely organized into five technical areas:

• Crops
• Livestock
• Sustainable Intensification
• Safe & Nutritious Foods
• Policy

Nutrition and gender are addressed as cross-cutting issues.

HICD and linkages to technology-scaling efforts are core principles for design and implementation of research activities.
RESEARCH IMPLEMENTING PARTNERS

U.S. Research System
• U.S. universities
• USDA
• U.S. and global private sector

Global Food Security Research System
• CGIAR & other international research organizations

National/Regional Agricultural Research Systems
• Regional/national agricultural research organizations
• Partner-country universities
• Local private sector
• Other actors within the local Agriculture Innovation System
FEED THE FUTURE INNOVATION LABS

- U.S.-based researchers collaborate with partner-country researchers.

- Significant capacity development component (Ph.D., masters training).

- Typically have potential for Mission buy-ins or Associate Awards.
EXAMPLES: FTF INNOVATION LABS ACROSS THE 5 RESEARCH AREAS

**Soy Value Chain**
- Breeding for Africa
- Local agronomy
- Processing technologies—Promoting development of the soy value chain

**Livestock Systems**
- Livestock value chains
- Disease management
- Animal source foods
- Enabling policies

**Integrated Pest Management**
- Participatory IPM systems
- Hort and grain crops
- Dissemination through Centers of Excellence

**Post-Harvest Loss Reduction**
- Loss/waste reduction
- Moisture measurement
- Drying/storage techniques
- Insect/mycotoxin prevention

**Assets & Market Access**
Policy research on how market function and access promotes (or hinders) asset accumulation, competitiveness, and the capacity of smallholder farmers and the rural poor to manage economic and climate-related shocks.

For more information, contact BFS/ARP or check out the “Innovation Lab Fact Sheet.”
THE CGIAR

CIMMYT
Mexico City
Mexico

CIAT
Cali
Colombia

IFPRI
Rome
Italy

ICARDA
Aleppo
Syrian Arab Republic

ICRISAT
Patancheru
India

Bioversity International

Africa Rice Center
WARDA
Cotonou
Benin

IITA
Ibadan
Nigeria

IVMI
Colombo
Sri Lanka

ILRI
Nairobi
Kenya

CIFOR
Bogor
Indonesia

World Agroforestry
Nairobi
Kenya

World Fish
Penang
Malaysia

IRRI
Los Baños
Philippines

CIP
Lima
Peru
EXAMPLES: USAID INVESTMENTS IN THE CGIAR

- Core support to the CGIAR research platform and its institutional research programs

- Bilateral activities procured for food security research and scaling, e.g.:
  - Centrally funded Africa RISING sustainable intensification research project.
  - Mission-funded seed-scaling and value chain development activities.
  - IFPRI policy research and capacity support for Feed the Future target countries.

For further information on activities or buy-ins under USAID’s PIO grant to the CGIAR, contact AOR Eric Witte (ewitte@usaid.gov).
PRIVATE-SECTOR RESEARCH PARTNERSHIPS

- Partner with large and small companies, both domestic and international, on all types of technology (i.e., seed, machinery, services, and communications)

- Partnerships range from technology access agreements (i.e., donated Intellectual Property) to active private sector engagement in the technology development process
PRIVATE-SECTOR RESEARCH PARTNERSHIPS

• Global, U.S. and local private-sector partners

• Private sector can contribute in a variety of ways:
  - Direct funding or co-implementation of activity.
  - Donate/license intellectual property.
  - In-kind contribution of technical expertise, staff time, resources, research services.
  - Commercial scaling pathway for outputs.
  - Sit on project advisory/steering committees.
  - Participate in “innovation platforms” to guide research priorities & implementation.
USAID BIOTECHNOLOGY INVESTMENTS

• USAID uses all scientifically validated technologies
• Public-sector-led and public-private partnerships
• Policy capacity development and product development activities

Examples: Biotech Products
• Bt Eggplant
• Bt Cowpea
• Climate-Resilient, Bt Maize
• Climate-Resilient, Salt-Tolerant, Nitrogen-Use-Efficient Rice
• Disease-Resistant Potato
• Disease-Resistant Cassava

Biotech Policy Activities
• Program for Biosafety Systems (PBS)
• South Asia Biosafety Support (SABP)
NATIONAL/REGIONAL AGRICULTURAL RESEARCH SYSTEMS

Typically sub-awardees of centrally funded research awards; sometimes direct award recipients (particularly for HICD investments). Can include:

• Regional/national agricultural research organizations
• Partner-country universities
• Local private sector
• Other actors within the local Agriculture Innovation System (e.g., farmer organizations, NGOs, etc.)
Technology Scaling: Process by which an innovation (technology, practice, policy or knowledge) undergoes widespread, sustained adoption and use by beneficiaries in a manner that enhances food security.

Best practices for research activities:

1. Explore and identify potential scaling pathways early in R&D process.
2. Active collaboration between researchers and potential scaling partners.
3. Use participatory research methodologies in co-design and testing of innovations.
4. Solicit and respond to ongoing, iterative feedback from end-users, stakeholders and technology scaling partners.
5. Maintain engagement by research partners as advisors after technology handoff.
ACTIVITY: IDENTIFY RESEARCH NEEDS
YOU WERE ASKING …
SCALING FOR WIDESPREAD ADOPTION OF IMPROVED TECHNOLOGIES AND PRACTICES

Food Security and Agriculture Core Course

Photo: KORKA 3
OBJECTIVES

• Understand widespread adoption is really important for GFSS objectives and it requires careful consideration of how to reach indirect beneficiaries (e.g., through programming for diffusion of adoption).

• Analyze the characteristics of the technology and/or practice that facilitate scaling.

• Think through a framework for selecting an appropriate delivery pathway (e.g., private sector, public sector) and identifying appropriate actors.

• Consider the role of drivers and the enabling environment in developing a strategy to facilitate scaling through diffusion.
Scaling is used in many different ways:

• scaling a program
  - e.g., increased funding and expanded geographical area

• scaling for visibility and action on an issue
  - e.g., increased government attention

• scalability of a system
  - e.g., the network can efficiently handle 2 users, or 200,000 users

• scaling a model
  - e.g., off-taker driven farmer cooperatives for aggregation

• **scaling for widespread adoption of technologies and practices**
  our focus in this session
WHY CARE ABOUT SCALING THE ADOPTION OF PRACTICES AND TECHNOLOGIES?

1) Adoption of improved practices and technologies underlie success of GFSS.
Illustrative examples:

<table>
<thead>
<tr>
<th>Increased sustainable productivity (IR 4)</th>
<th>Improved proactive risk reduction, mitigation and management (IR 5)</th>
<th>Increased consumption of nutritious and safe diets (IR 7)</th>
<th>Increased use of direct nutrition interventions and services (IR 8)</th>
<th>More hygienic household and community environments (IR 9)</th>
<th>Improved climate risk, land, marine, and other natural resource management (CC IR 2)</th>
<th>Increased gender equality and female empowerment (CC IR 3)</th>
<th>Increased youth empowerment and livelihoods (CC IR 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved seeds, fertilizer and practices for increased yield and fodder production; storage and drying to reduce post-harvest loss; animal health services; integrated pest management; services for market price information; water management practices; high quality feed for fish</td>
<td>Insurance for risk transfer; financial services</td>
<td>Growing iron-fortified beans and orange-fleshed sweet potato; post-harvest loss innovations that increase year round availability of nutritious foods</td>
<td>Micro-nutrient supplementation, improved breastfeeding practices</td>
<td>Hand washing; separation of small animals from play areas</td>
<td>Cover crops; weather forecasts; seeds and practices for agro-forestry</td>
<td>Processing equipment and mechanization appropriate for women</td>
<td>Mechanization and service provider businesses linked to mechanization.</td>
</tr>
</tbody>
</table>
WHY CARE ABOUT SCALING THE ADOPTION OF PRACTICES AND TECHNOLOGIES?

2) GFSS aims for population level impacts
   • Efforts need to reach a large percent of potential adopters
   • To be cost effective and sustainable, this requires reaching indirect beneficiaries

How can a GFSS program for widespread adoption?
A VERY FIRST STEP

• Widespread adoption requires technologies and practices to be available beyond a target group.

• Need delivery pathway actor(s) that are not the implementing partner.

• e.g., if a farmer walks by a demo plot and is inspired to try the new seed variety and accompanying practices, can she access the seed and knowledge?
PROGRAMMING FOR WIDESPREAD ADOPTION

• Consider the characteristics of the technology and/or practice that facilitate scaling
• Identify the appropriate delivery pathway category and actor(s)
• Analyze the drivers and enabling environment to determine strategies to facilitate scaling through diffusion
• Steps are iterative and link to the CDAIS steps
DIFFUSION OF ADOPTION

Diffusion of Innovations Video (3:35 min)
DIFFUSION OF ADOPTION—SUPPORT FOR THE S-CURVE

CONSUMPTION SPREADS FASTER TODAY

RATE OF ADOPTION

• Communication networks
  – Support the adoption process
  – Can reduce spatial heterogeneity

• Purchasing power & capacity

Adoption process
- Awareness
- Interest
- Evaluation
- Trial
- Adoption
PROGRAMMING FOR WIDESPREAD ADOPTION

- Consider the characteristics of the technology and/or practice that facilitate scaling
- Identify the appropriate delivery pathway and actor(s)
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CHARACTERISTICS OF INNOVATIONS

What makes an innovation more likely to be adopted?

• **Relative Advantage:** the extent to which an innovation is perceived as more useful than what it supersedes.
  - Cost or time savings, or reduced environmental impact.
  - Perceptions vary by group—consider those of women and youth.

• **Compatibility:** a measure of how well an innovation is perceived as being consistent with existing values, past experiences, and needs of potential adopters.

• **Complexity:** the degree to which an innovation is easy to understand and use.

• **Trialability:** the degree to which an innovation may be tested and with minimal risk.

• **Observability:** the degree to which the results of an innovation are visible and repeatable.

*Rogers (1962) Diffusion of Innovations*
GENDER AND ADOPTION

• It is often not gender per se, but the underlying variables that impact adoption, such as resource inequalities
  - e.g., capital, land tenure, education

  o A narrow focus on differences between men and women may mask more important differences among women, such as age, education level and size of landholding

Quisumbing and Pandolfelli (2009)
Marenya and Barret (2007)
• Innovations can be technologies, practices or packages of technologies and practices
  - e.g., improved poultry breed and accompanying practices of buying supplemental feed

• Adoption needs to maintain or improve quality
  - The positive impact of the technology/practice is maintained or improved upon during sustained adoption
PROGRAMMING FOR WIDESPREAD ADOPTION

• Consider the characteristics of the technology and/or practice that facilitate scaling

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DELIVERY PATHWAY

• Private sector or commercial
• Public sector
• Civil society
• Public-Private Partnership
• Range of actors in a delivery pathway
  - e.g., commercial pathway—manufacturer, distributor, retailer
• How do you determine the right type of delivery pathway?
### Potential for pay-to-consume

**Demand Pull and high return to delivery pathway actors**

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
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<tr>
<td>Private Good – Private Sector Dominant</td>
<td>Common Good – Public-Private Collaboration</td>
</tr>
<tr>
<td>Access is based on payment and the good cannot be simultaneously used by multiple consumers (e.g., fertilizer, hybrid maize)</td>
<td>Access is not controlled by payment, but the good cannot be simultaneously used by multiple consumers (e.g., rangeland, seed of open-pollinated varieties)</td>
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**Potential for competition**

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<td>Club Good – Niche Private Sector</td>
<td>Public Good – Public Sector Dominant</td>
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<td>Access is based on payment, but the good can be simultaneously used by multiple consumers until congestion occurs (e.g., irrigation system, warehouse)</td>
<td>Access is not controlled by payment and the good can be simultaneously accessed by multiple consumers (e.g., public radio, information for behavior change)</td>
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**Figure 2.** Categories of goods, with delivery pathway actors added. A good can fall between categories and it can move between categories over time.
I think market forces are critical here. And sometimes people say, “Well, you know, the private sector does everything better.” And I don’t know that that’s really the case so much as the private-sector entities that did it poorly no longer exist, right? Because they go out of business. And public-sector entities can stay in business for a very long time no matter how poor their performance is.

— Dr. Jim Yong Kim (2015), in an Freakonomics interview to discuss “Mind, Society, and Behavior,” a study focused on the success of behavioral interventions that have helped boost savings rates, reduce water consumption, improve education, and eliminate biases among development professionals themselves.
DELIVERY PATHWAYS

• Key to realizing research investments
  - Research products must be transferred through actors along delivery pathways who promote and enable adoption by end users

*Given the significant amounts of donor and government funding that support breeding, a clearer understanding of what happens to varieties, and seed of the varieties, after release is warranted. A further reason for such tracking is that variety maintenance can be costly, and it is unrealistic to assume that a variety will be maintained in perpetuity in the absence of farmer or seed company interest. Agri Experience (2016)*
PROGRAMMING FOR WIDESPREAD ADOPTION

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ANALYZE THE DRIVERS AND ENABLING ENVIRONMENT TO DETERMINE STRATEGIES TO FACILITATE SCALING

• Incentives and motivations of end users and delivery pathway actors are critical

• They depend on
  - the enabling environment (e.g., policy, finance, taxes, subsidies, institutional capacity)
  - a range of social factors (e.g., cultural norms, labor constraints).

• Environmental and health impacts need to be considered.

• Not all innovations can be scaled, and others are not worth scaling if they are not sustainable.
For commercial delivery pathways, the following considerations have received strong support for programming for successful scaling:

• Identify private-sector partners as early as possible

• Establish that there is a solid business case for most actors in the value chain and potential consumers’ willingness to pay

• Use an adaptive approach that incorporates metrics appropriate for commercial monitoring

• Support market actors to use a targeted marketing to increase demand

• Use subsidies and incentives judiciously early in the process to mitigate risk for both private sector partners and adopters and have a planned exit strategy

• Address gaps and weaknesses in the value chain

• Ensure public-sector support, even if the government has limited involvement in implementation
EXAMPLE – PICS HERMETIC STORAGE BAGS IN KENYA

*Characteristics of innovations that facilitate scaling:* relative advantage, compatibility, complexity, trialability, observability

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<td>The bags retail for the equivalent of $2.35 US dollars.</td>
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<td>Bags can be used for up to three seasons.</td>
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<td>The bags increase profit by increasing the quantity of grain that can be sold and also by allowing storage until grain has a higher market value.</td>
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**Delivery pathways and strategies**

- PICS were a public research investment with an initial public-private pathway.
- They have transitioned into a private good with a clear commercial pathway.
- The technology offers a solid business case for stakeholders along the value chain, including the manufacturer, national wholesaler, retailers, and smallholder maize and other grain producers.
- Farmers needed increased awareness of the value. The project worked with farmers’ organizations, country director of agriculture and others. They supported ‘open the bag’ ceremonies.
- USAID-KAVES supported the producer with technical assistance and modest funding.
- Purdue University, the research partner with technical knowledge, worked with private sector to improve marketing strategy.
- The success of PICS bags in Kenya has resulted in competition and crowding in of other, more advanced, hermetic storage technologies.
For other delivery pathways, such as public-private, public-sector, and community-based, factors for successful scaling can vary widely. General points for consideration include:

• Establish that actors within the delivery channel have a clear motivation and the required capacity
• Use an adaptive approach based on feedback from the stakeholders
• Create a targeted strategy to stimulate end user awareness and demand through marketing, promotion, and behavior change efforts
• Assess the need for demand creation and ensure the strategy to create it is informed by incentives and constraints of the potential adopters
• Find a champion, or a promoter, of the innovation
• For behavior change, analyze barriers and motivations that are different than the ones the project is promoting. Knowledge and awareness are important for adoption but often insufficient.
• Identify cost recovery options to offset public funding and have a project exit strategy
PROGRAMMING FOR WIDESPREAD ADOPTION

• Consider the characteristics of the technology and/or practice that facilitate scaling

• Identify the appropriate delivery pathway and actor(s)

• Analyze the drivers and enabling environment to determine strategies to facilitate scaling through diffusion
WORKING DEFINITION

Scaling for widespread adoption of proven technologies and practices:

The process of sustainably increasing the adoption of a credible technology or practice, or a package of technologies and practices, with quality to retain or improve upon the demonstrated positive impact and achieve widespread use by stakeholders.
LOCAL CAPACITY DEVELOPMENT FOR EXTENSION AND ADVISORY SERVICES
Principles and Practices for Sustainable Outcomes

Food Security and Agriculture Core Course
OVERVIEW

I. History of extension and some key terms
II. USAID approaches to extension
III. What does a modern extension and advisory services (EAS) system look like?
IV. Designing best-fit EAS interventions
OBJECTIVES

• Increase capacity for designing and analyzing extension and advisory services

• Examine best-fit strategies for local EAS systems with emphasis on collaboration and appropriate use of ICTs
I. HISTORY OF EXTENSION
AND KEY TERMS
HISTORICAL CLASSIC APPROACH – TOP DOWN

Local Agricultural System

Ministry of Agriculture

Research Division

Extension Division

Farmers

Farmers

Farmers

Farmers
EXTENSION ON PH

How to Pronounce PH Video
AGRICULTURAL EXTENSION

Agricultural Extension

• Originally:
  - Application of scientific research, knowledge and technologies to improve agricultural practices through farmer education

• Now:
  - Encompasses wider range of communication and learning theories and activities
  - Organized for the benefit of rural people and society in general (public goods)
  - Involves professionals from different disciplines
  - Advisory services (or rural advisory services) also commonly used interchangeably with extension services
DEFINING EXTENSION

“Extension is defined broadly to include

• all systems that facilitate access of farmers, their organizations and other market actors to information, knowledge, and technologies;

• facilitate their interaction with partners in research, education, agri-business, and other relevant institutions;

• and assist them to develop their own technical, organizational, and management skills and practices.”

— Ian Christoplos, FAO, 2010 (emphasis added)
II. USAID APPROACHES TO EXTENSION
PHASES OF USAID WORK IN AGRICULTURE

1950s–60s  – Direct implementation, U.S. technologies
1970s–80s  – Develop local capacity of public systems
1990s–00s  – Limited engagement in sector
  • Private sector based approaches, but little coherence
  • Staffing dropped; few true extensionists
  • Stayed in research, food aid community projects, agribusiness
Later 00s  – Re-engagement—direct implementation thru development partners
2010s     – ICT enthusiasm and pluralism widely accepted
III. MODERN EXTENSION AND ADVISORY SERVICES (EAS) SYSTEM
FOUR PARADIGMS OF AGRICULTURAL EXTENSION

Technology Transfer (persuasive + paternalistic)

Advisory Services (persuasive + participatory)

Human Resource Development (educational + paternalistic)

Participatory/Facilitation (educational + participatory)
FOUR BUILDING BLOCKS OF EAS

- Content
- Methods
- Customer
- Provider

Extension and Advisory Services
FOUR BUILDING BLOCKS OF EAS

Content

Methods

Extension and Advisory Services

Provider

Customer
• Commercial farmers
• Emerging farmers
• Women farmers
• Minority groups
• Subsistence farmers
FOUR BUILDING BLOCKS OF EAS

- **Content**
  - Public goods
  - Private goods

- **Methods**

- **Provider**

- **Customer**

**Extension and Advisory Services**
FOUR BUILDING BLOCKS OF EAS

Methods
- Farmer Field Schools
- Lead Farmers
- Demonstration plots
- ICT enabled services
FOUR BUILDING BLOCKS OF EAS

- Customer
- Methods
- Content
- Extension and Advisory Services
- Provider
  - Public
  - Private

FEED THE FUTURE
The U.S. Government’s Global Hunger & Food Security Initiative

USAID
FROM THE AMERICAN PEOPLE
<table>
<thead>
<tr>
<th>Public</th>
<th>Funding</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>Producers/associations pay fee or tax to cover costs of extension services.</td>
<td>Producers/associations pay fee or tax to cover costs of extension services.</td>
</tr>
<tr>
<td>Public sector cost recovery</td>
<td></td>
<td>Public sector cost recovery</td>
</tr>
<tr>
<td>Delivery</td>
<td>Government funds but shifts responsibility for service delivery to other providers:</td>
<td>Public withdrawn from funding and delivery:</td>
</tr>
<tr>
<td></td>
<td>• Contracting out</td>
<td>• Commercialization</td>
</tr>
<tr>
<td></td>
<td>• Subsidies to producers to hire services directly</td>
<td>• Privatization to private company</td>
</tr>
<tr>
<td></td>
<td>• Funding NGO’s for services</td>
<td>• Transfer to NGO’s or farmer organizations</td>
</tr>
<tr>
<td>Private</td>
<td>Public sector funding of external service providers</td>
<td>Completely private sector driven</td>
</tr>
</tbody>
</table>
## Hallmarks of a Modern EAS System

<table>
<thead>
<tr>
<th>Hallmark</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decentralized</td>
<td>Pluralistic</td>
</tr>
<tr>
<td>Farmer led</td>
<td>Innovative</td>
</tr>
<tr>
<td>Market oriented</td>
<td>ICT enabled</td>
</tr>
<tr>
<td>Tailored</td>
<td>Financially sustainable</td>
</tr>
</tbody>
</table>
Decentralization

Decentralized services may be able to better address regional differences in terms of agro-ecological conditions, socio-economic structures and market opportunities. Challenges include potentially having to coordinate work with multiple local governments entities.
Farmer Led

Services will be more effective if they are provided in response to producer’s actual needs and interests. Requires formation of farmer interest groups and farmer representation in advisory boards.
Market Oriented

Advising farmers to produce for the market, rather than marketing what is produced. With economic growth will come more opportunities for high value crops, livestock, fish and other products.
Needs and opportunities for improving rural livelihoods will differ by target groups depending on gender roles, educational level, land ownership, etc. Examples include limited literacy and cultural restrictions impacting women’s access to extension services.
Different types of organizational actors (public, NGOs, input supply dealers and other private sector, etc.) have different comparative advantages in providing different types of extension services. Because public services are difficult to sustain, focus is on building partnerships.
PLURALISTIC EXTENSION

- Recognizes diversity of farmers and farming systems
- Characterized by coexistence of multiple public, private, and mixed extension systems and services—but all of which benefit from some degree of coordination and regulation that facilitates interaction.
Innovative

In a more innovative extension system, the field extension workers become facilitators and knowledge brokers for both process and product innovations. Emphasis on gender equity and equality.
Services provided are not dependent on donor funding. Typically, sustained by a revolving budget for the public or private sector provider. Examples include fee for service (animal para-vets) or producer group funds used for extension services.
Modern ICT services are well positioned to expand the reach of the extension service provider with high quality, up to date, relevant content. Examples include radio, IVR, SMS, videos, print media.
CURRENT USAID EXAMPLE #1

USAID

$\rightarrow$

International Implementing Partner

Training

Lead Farmers

Training

Multiple Farmers

Multiple Farmers

Multiple Farmers

Multiple Farmers
CURRENT USAID EXAMPLE # 2

USAID

PIO Research Institution

Local NGO

International Implementing Partner

Local NGO #1

Local NGO #2

Local NGO #3

Local NGO #4

Local NGO #5

Extension Agents

Extension Agents

Extension Agents

Extension Agents

Extension Agents

Farmers - Value Chain #1

Farmers - Value Chain #2

Farmers - Value Chain #3

Farmers - Value Chain #4

Farmers - Value Chain #5
CURRENT USAID EXAMPLE #3

USAID

International Implementing Partner

Input Dealers

Farmers
Farmers
Farmers

Processors

Farmers
Farmers
Farmers
CURRENT USAID EXAMPLE #4
CURRENT USAID EXAMPLE # 5
YOU WERE ASKING …
MARKET SYSTEMS AND VALUE CHAINS
OUTLINE

• Recap market systems and value chains
  - Feed the Future and market systems—what is different?
  - Main value chain concepts—short activity to refresh your memory

• Lessons learned from FTF 1.0
  - Challenges using Value Chain approach
  - Opportunities for greater poverty reduction

• The Value Chain approach
  - Implementation
  - Examples

• Private Sector Engagement and Partnerships
OBJECTIVES

• Design Market driven intervention and engagement to build strong private-led value chains that are effective, efficient and sustainable
• Develop successful private sector partnerships
• Strengthening and expanding facilitation of Market led trade through holistic approaches
Goal: Sustainably reduce global hunger, malnutrition, and poverty

**Objective 1**
Inclusive and sustainable agricultural-led economic growth

**Objective 2**
Strengthened resilience among people and systems

**Objective 3**
A well-nourished population, especially among women and children

**Cross-Cutting Intermediate Results (IR)**
- **IR 1**: Strengthened inclusive agriculture systems that are productive and profitable
- **IR 2**: Strengthened and expanded access to markets and trade
- **IR 3**: Increased employment and entrepreneurship
- **IR 4**: Increased sustainable productivity, particularly through climate-smart approaches
- **IR 5**: Improved proactive risk reduction, mitigation, and management
- **IR 6**: Improved adaptation to and recovery from shocks and stresses
- **IR 7**: Increased consumption of nutritious and safe diets
- **IR 8**: Increased use of direct nutrition interventions and services
- **IR 9**: More hygienic household and community environments

Effective response to emergency food security needs

**Complementary Results**
Long-term food security efforts benefit from and contribute to complementary work streams that promote:
- Economic growth in complementary sectors
- Healthy ecosystems and biodiversity
- Stable, democratic societies that respect human rights and the rule of law
- A reduced burden of disease
- Well-educated populations
WHAT IS DIFFERENT?
CHALLENGES

Value chain used as a catch-all phrase
- Lack of clarity of what a VC approach is
- Identify approaches that work well

Inclusive growth
- Effectively and systemically inclusion of the poor
- Leverage the greatest impact
VALUE CHAIN APPROACH

Four principles
1. Market system perspective
2. Look to end markets
3. Address constraints
4. Facilitate improvements
STEPS TO IMPLEMENT VC APPROACH

Purpose

• Overview of cross-agricultural market functions
• Inform value chain selection
• Identify opportunities to improve agri-food system competitiveness, inclusiveness and resilience
• Sufficient country-specific information
• Identify high-level priorities
GUIDING QUESTIONS

1. In which end markets and commodities do small-scale producers in the targeted regions and/or demographics have, or could they have, a competitive advantage?

2. What is the current state of cross-agricultural market functions—including input systems, logistics and transport, infrastructure, information services, financial services and other relevant elements of the formal and informal enabling environment?

3. What is the capacity of research, education and extension systems (including both public and private actors) to support innovation across the agricultural market?
RESULTS

• Desk review:
  - Review existing documents and evidence
  - Past project reports related to USAID, other donors and government programs
  - Include applicable data sets, such as production, marketing, trade, labor market data, where available

• In-country fieldwork:
  - Fieldwork in the ZOI and relevant market areas
  - Cross-check or update key data points
  - Use key informant interviews, focus group discussions and selected site visits where they provide insight into production, distribution or market conditions

• Documentation, revision and reporting
FOOD SAFETY AND VC APPROACH

INPUTS/PRODUCTION

LOCAL USE/Sale

CONSOLIDATION/TRANSPORT

PACKAGING

PROCESSING

COMMERCIAL SALE

INSPECTION

CONSUMERS
IMPLEMENTING THROUGH FACILITATION

• **Leverage points**: places in the value chain where interventions can lead to systemic change

• **Crowding-in** interventions catalyze other players and functions to enter the value chain

• **Demonstrate, scale up and exit**
  - Demonstrations → relaying success to wide numbers of actors
  - Carefully reducing support → adoption and change driven by value
  - Successfully cease support (or exit) → shift focus to the next incremental intervention
GREATER POVERTY REDUCTION IMPACT

• Smallholder-led agricultural development → efficient route to poverty reduction

• Policy programs
  - Public programs
    o crop science and extension to increase smallholder productivity
    o road infrastructure
    o the adoption of grades and standards to facilitate trade
  - Support private sector investment
    o elimination of export bans and import tariffs within regional economic communities
    o closely monitored interventions to overcome market failures
GREATER POVERTY REDUCTION IMPACT

• Strengthening market relationships
  - Lead-firm approach: working with and through large buyers and suppliers
  - Market linkage approach: strengthening the linkages between market actors

• Vertical coordination
  - bringing together a variety of value chain actors, including small-scale producers, developing relationships

• Horizontal coordination
  - formation of producer groups
GREASTEST POVERTY REDUCTION IMPACT

- Value chain governance
  - buyers willing to invest in the chain to ensure quality
    - contract farming and agricultural outgrower schemes
    - willing to provide improved inputs
    - services and technical assistance
Would our activities REALLY be all that different with a market-focused approach?
PRIVATE SECTOR ENGAGEMENT

“There are literally trillions of dollars that could be mobilized for development if we learn to better leverage partnerships, catalyze private-sector investments and amplify the efforts of foundations and non-profits.”

– Administrator Green in testimony to Congress

Why?
• Sustainability
• Scalability
• Leverage
• Ownership

That’s mostly for USAID, What about for Private Sector?
WHY SHOULD THE PS PARTNER WITH USAID?

Some Examples:

• Generates new customers and creates new market opportunities
• Reduces risk by building stronger supply chains through engagement of smallholder farmers
• Reduces the cost of capital by leveraging company assets, balance sheet and procurement strategies
• Prevents food-borne diseases through improved management, quality control and traceability
• Increases brand equity by directly engaging with smallholders and pursuing initiatives that create and share value

Diverse range of potential private sector partners have different incentives/objectives

• Multinational Agribusiness (Buyers): Walmart, Starbucks
• Industry Associations and Corporate Foundations: WCF
• Financial Institutions: Ecobank, Banque de Kigali
• Input supplier and processors: Monsanto, Syngenta
• Extractive Industries: Exxon Mobil, Chevron

So, the question is how do we work with this? How do we find that illusive shared value?
PRIVATE SECTOR ENGAGEMENT AND PARTNERSHIPS ACTIVITY

**DE RISKING/CREATING VALUE**

How can a donor/partner:
- Accelerate model effectiveness and/or impact?
- Reduce risks like those of market entry, operational viability, business stability, etc.?

**SCALE AND SUSTAINABILITY**

How does the model:
- Reach impact and business scale?
- Achieve financial sustainability?
- Leverage external partnerships and actors for success?

**CUSTOMER EXPERIENCE**

How does the product/customer experience:
- Deliver value for the end client?
- Improve customer growth, productivity, and performance?
- Generate customer loyalty and retention

**COMPANY VALUE**

How does the model:
- Generate value through sales revenue?
- Improve quality and productivity?
- Deliver improved branding and a license to operate?

**GO TO MARKET**

How does the model:
- Assure a product is efficiently and effectively sourced or delivered?
- Use channels to assure accessibility?
- Use cost-effective approaches to logistics?

**SMALLHOLDER VALUE**

How does the model:
- Contribute to farmer market access?
- Increase farmer income & livelihood opportunities for women as well as men
- Reduce the “poverty penalty” on farmers
Associated models develop creative means to provide access to finance where it would be unavailable otherwise.  
**Models: Asset Financing**

Associated models focus on increasing productivity through “high-touch” engagements between the company and the smallholder farmers.  
**Models: Contract Farming and Bundling**

Associated models develop and/or improve distribution channels that lead to increased sales and revenue opportunities.  
**Models: Dedicated direct salesforce**

Associated models can make the product accessible to smallholder farmers while leading to improved sales, profitability and growth for the company.  
**Models: Consumer Finance, No Frills**

Associated models can increase smallholder and company productivity, quality and supply chain performance.  
**Models: Pay per use and Micro-franchising**

Associated models assure a reliable and stable supply of products and services.  
**Models: Smallholder aggregation and Deep Procurement**
PRIVATE SECTOR ENGAGEMENT AND PARTNERSHIPS ACTIVITY
DESIGNING PRIVATE SECTOR PARTNERSHIPS

• Participant’s manual page _____
• Review the directions and the Case Study Template
• Record the key points of template on the chart paper

Photo: USAID/Bobby Neptune
How would you measure the impact of your new perfected partnerships?
NEW GFSS INDICATORS FOR PSE
NEED HELP FOR PSE AND PARTNERSHIPS?

- Relationship manager table link
- Bios and MPI resource link
- PSE technical guidance
- WV field guide
- GFSS indicators and PIERS
- P4I new tools
FINANCING AND INVESTING FOR AGRIBUSINESS

Food Security and Agriculture Core Course

Photo: USAID/AgriFUTURO
For FY 2015:

- A total of 1,237,401 MSMEs accessed $877,871,314 in rural and agricultural loans in Feed the Future countries
- 125 programs reported some number of MSMEs accessing loans as a result of U.S. Government assistance
- 109 programs reported some value of loans being accessed as a result of U.S. Government assistance
OBJECTIVES

• Identify multiple instruments within Finance and Non-Finance categories

• Compare lessons learned and challenges that have deterred implementation of financing and investing programs
# VALUE OF LOANS ACCESSED

## Top five programs (FY15)

<table>
<thead>
<tr>
<th>Country</th>
<th>Project</th>
<th>USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>Financial Inclusion for Rural Microenterprise (FIRM)</td>
<td>$301,069,840</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Agricultural Growth Program–Agri-business and Value Chain Development project (AGP-AMDe)</td>
<td>$94,400,886</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Maximizing Agricultural Revenue and Key Enterprises in Targeted Sectors (MARKETS) II</td>
<td>$50,852,999</td>
</tr>
<tr>
<td>Haiti</td>
<td>Haiti Integrated Financing for Value Chains and Enterprises (HIFIVE)</td>
<td>$33,529,727</td>
</tr>
<tr>
<td>Ghana</td>
<td>Financing Ghana Agricultural Project (FinGAP)</td>
<td>$32,684,513</td>
</tr>
</tbody>
</table>
### MSMES RECEIVING U.S. GOVERNMENT ASSISTANCE

#### Top 5 programs (FY15)

<table>
<thead>
<tr>
<th>Country</th>
<th>Project</th>
<th>Number of MSMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>Financial Inclusion for Rural Microenterprise (FIRM)</td>
<td>826,120</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Maximizing Agricultural Revenue and Key Enterprises in Targeted Sectors (MARKETS) II</td>
<td>173,107</td>
</tr>
<tr>
<td>Haiti</td>
<td>Haiti Integrated Financing for Value Chains and Enterprises (HIFIVE)</td>
<td>69,464</td>
</tr>
<tr>
<td>Nepal</td>
<td>Knowledge-based Integrated Sustainable Agriculture and Nutrition Project (KISAN)</td>
<td>48,440</td>
</tr>
<tr>
<td>Senegal</td>
<td>Feed The Future Senegal Naatal Mbay</td>
<td>25,309</td>
</tr>
</tbody>
</table>
INTERVENTIONS IN THE AGRICULTURAL FINANCING SECTOR ALIGN WITH THE U.S. GOVERNMENT’S FOCUS ON GENDER INTEGRATION AND EMPOWERMENT IN THE GFSS

When provided with access to capital women are able to quickly uptake technologies and increase gross margins.

Example from Kenya:

Source: 2016 Gender Portfolio Brief
THERE ARE AN ESTIMATED 450 MILLION SMALLHOLDER FARMERS IN THE WORLD ON FARMS SMALLER THAN 5 HECTARES

Geographic distribution of smallholder farmers

Estimated number of farms smaller than 5 hectares (millions, 2014)

Rural population, share of total population (% , 2014)

THESE SMALLHOLDERS ARE A HETEROGENEOUS GROUP THAT CAN BE SEGMENTED IN DIFFERENT WAYS

![Diagram of farmer types and market engagement]

<table>
<thead>
<tr>
<th>Farmer type</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large farmer</td>
<td></td>
</tr>
<tr>
<td>Medium farmer</td>
<td></td>
</tr>
<tr>
<td>Commercial smallholder farmer in tight value chains</td>
<td></td>
</tr>
<tr>
<td>Commercial smallholder farmer in loose value chains</td>
<td></td>
</tr>
<tr>
<td>Noncommercial smallholder farmer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Segment size</th>
<th>Land</th>
<th>Crop</th>
<th>Market engagement</th>
<th>Access to tech</th>
<th>Access to finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7% of total smallholder farmers</td>
<td>&gt;2ha</td>
<td>Cash, few staple</td>
<td>Little subsistence, most surplus sold to a contracted buyer</td>
<td>Good</td>
<td>Informal and formal, some provided by buyers</td>
</tr>
<tr>
<td>33% of total smallholder farmers</td>
<td>1-2ha</td>
<td>Staple, some cash</td>
<td>Some subsistence, reliable surplus sold to offtaker or in local markets</td>
<td>Limited</td>
<td>Limited and informal</td>
</tr>
<tr>
<td>60% of total smallholder farmers</td>
<td>&lt;1ha</td>
<td>Staple</td>
<td>Most subsistence, little surplus</td>
<td>Very limited if at all</td>
<td>Limited, informal if at all</td>
</tr>
</tbody>
</table>

Source: CGAP. Segmentation of Smallholder Households. 2013
BY THE NUMBERS: ESTIMATE THAT TOTAL SMALLHOLDER LENDING THROUGH FINANCIAL SERVICE PROVIDERS IS ~$56BN

Smallholder lending in South and Southeast Asia, Sub-Saharan Africa and LATAM by source

- Lending by formal financial institutions: 14
- Lending by value chain actors: 17
- Lending by informal/ community based financial institutions: 56
- Total lending: 25

**See Inflection Point report for full breakdown of lending**

1. Excludes China, Central Asia, Middle East and North Africa, and Eastern Europe. Includes financing to producer groups by state banks and commercial banks. Includes agri and non-agri lending.

Source: ISF Briefing 1, "Local bank financing for smallholder farmers," Oct. 2013; Rural and Agricultural Finance Learning Lab Smallholder Financial Solutions Database; annual reports; expert interviews; Delberg analysis.
Compared to the different smallholder segments, there are very clear gaps in provision.

<table>
<thead>
<tr>
<th>Financial needs and disbursements (USD Bn)</th>
<th>Commercial smallholder farmers in tight value chains</th>
<th>Commercial smallholder farmers in loose value chains</th>
<th>Noncommercial smallholder farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>#farmers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>30</td>
<td>~45</td>
<td>~15</td>
</tr>
<tr>
<td>12% Formal financial institutions</td>
<td>48%</td>
<td>76%</td>
<td>93%</td>
</tr>
<tr>
<td>40% Value chain actors</td>
<td>98%</td>
<td>98%</td>
<td>55%</td>
</tr>
<tr>
<td>10% ST agri needs^2</td>
<td>11%</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>35% LT agri needs^3</td>
<td>2%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Non-agri needs</td>
<td>55%</td>
<td>55%</td>
<td>0%</td>
</tr>
<tr>
<td>0% ST agri needs^2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0% LT agri needs^3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0% Non-agri needs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Excludes China, Central Asia, Middle East, and North Africa and Eastern Europe. Includes financing to producer groups by state banks and commercial banks. 2. ST agri needs refers to short term financing needs of less than a year (typically for inputs, harvest and export). 3. LT agri needs refers to long term financing needs of more than one year (typically for renovation or equipment). Notes: Commercial banks and social lenders disbursements counted toward SHFs in tight VCs; state bank financing distribution in proportion to farmer segment needs; MFI agri lending included in loose value chains; MFI noncommercial-agri lending distributed in proportion to farmer segment need; “high touch” NGOs included under subsistence. Informal / community-based allocated in proportion to non-agri needs.
LOOKING AHEAD THE CURRENT TRAJECTORY OF FORMAL LENDING GROWTH WILL NOT SIGNIFICANTLY “CLOSE THE GAP”—A NEW TRAJECTORY IS NEEDED

1. Excludes China, Central Asia, Middle East and North Africa, and Eastern Europe.
2. CAGR assumptions: state bank market participant projections of ~8.5%, value chain actors in line crop production projections: 3.1% export crops, 2.3% non-export crops; MFIs market participant projections of ~13.90%; commercial banks in line with projected growth of retail banking: ~15% in Sub-Saharan Africa, ~14% in South and Southeast Asia, ~13% in Latin America; social lenders market participant projections of ~15%; high touch NGOs in line with 2010-2015 growth of ~30-35%.

Sources: expert interviews; FAO crop production projections; World Bank, McKinsey and BMI retail banking projections, annual reports
TO CHANGE THE GROWTH TRAJECTORY OF SMALLHOLDER FINANCING OVER THE NEXT 5–10 YEARS STAKEHOLDERS WILL NEED TO TAKE ON AMBITIOUS ROLES

<table>
<thead>
<tr>
<th>Financial service providers</th>
<th>Funders</th>
<th>Market and research platforms</th>
<th>Technical assistance providers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pioneers of product and service design</strong></td>
<td><strong>Champions of smart subsidy</strong></td>
<td><strong>Connected savants</strong></td>
<td><strong>Constructive educators</strong></td>
</tr>
<tr>
<td>• Use customer knowledge to make product offering more relevant to farmers</td>
<td>• Carefully assess financial models to support and design the investment mechanisms</td>
<td>• Fill-in key knowledge gaps e.g. value of customer centricity or business models performance</td>
<td>• Become advisors to financial service providers to serve smallholder more efficiently</td>
</tr>
<tr>
<td>• Explore partnerships to alleviate high cost to serve and information asymmetries</td>
<td>• Provide support for research, cover upfront costs of new partnerships and facilitate connections between investees</td>
<td>• Go beyond research designing common reporting standards, aggregating data and creating opportunities for actors to connect</td>
<td>• Extend beyond the educator by contributing data from their experience into industry research effort</td>
</tr>
</tbody>
</table>
EXAMPLE: FINGAP

Investment Mapping System Overview
# FINANCIAL TOOLS TABLE

<table>
<thead>
<tr>
<th></th>
<th>Productivity Enhancing</th>
<th>Growth Enhancing</th>
<th>Resilience Enhancing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt-Based Instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Debt-Based Instruments</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GROUP ACTIVITY (25 MINUTES)

Chart 1: Identify multiple debt-based and non-debt based instruments.
What are financial instruments in the following 3 categories:
1. Producer productivity
2. Firm growth
3. Risk management/resilience

Chart 2: Lessons Learned

Chart 3: Challenges
# FINANCIAL TOOLS TABLE

<table>
<thead>
<tr>
<th>Productivity Enhancing</th>
<th>Growth Enhancing</th>
<th>Resilience Enhancing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Debt-Based Instruments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Formal lending (including digital credit)</td>
<td>- Formal lending (including digital credit)</td>
<td>- Formal lending (e.g., to finance the purchase / construction of climate resistant farm inputs or risk-mitigation tools)</td>
</tr>
<tr>
<td>- Lease agreements</td>
<td>- Longer-term loans (enabling capital expenditure)</td>
<td>- Informal lending from a village savings and loan association</td>
</tr>
<tr>
<td>- Alternative collateral-based loans (e.g., factoring, warehouse receipts, etc.)</td>
<td>- Lease agreements</td>
<td>- Emergency loans</td>
</tr>
<tr>
<td>- Buyer credit</td>
<td>- Convertible debt</td>
<td>- Informal lending/support from social network (reciprocal obligation)</td>
</tr>
<tr>
<td>- Agrodealer-to-farmer (business-to-consumer, B2C)</td>
<td>- Debt instruments—linked to revenues/dividends for prepayment</td>
<td></td>
</tr>
<tr>
<td>- Input supplier-to-agrodealer (business-to-business, B2B)</td>
<td>- Quasi-debt instruments (subordinated debt)</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Debt-Based Instruments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Input selling mechanisms (e.g., pre-paid and layaways)</td>
<td>- Paid-in capital</td>
<td>- Formal and informal savings</td>
</tr>
<tr>
<td>- Buyer non-credit</td>
<td>- Private investor/joint ventures</td>
<td>- Index-insurance (e.g., weather)</td>
</tr>
<tr>
<td>- Remittances (as capital/investment)</td>
<td>- Venture capital</td>
<td>- Personal insurance (e.g., life, health, property, personal accident savings products)</td>
</tr>
<tr>
<td>- Mobile payments</td>
<td>- Private equity (including search funds)</td>
<td>- SME insurance (e.g., property, accident, life)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Remittances (as social support)</td>
</tr>
</tbody>
</table>
This guidance addresses strategies for catalyzing private capital flows and how these activities impact all areas of Feed the Future programming under the GFSS:

- Context
- Designing Interventions
- Key Lessons Learned
- Programming in Practice
- Additional Resources

“WALK GENTLY AND BE BRAVE.”

– Eleanor Brownn
REFLECTION

• What is one thing you can apply or would like to apply immediately to a current project?

• How do you anticipate it having a positive impact?

• How has this information challenged your assumptions?

• Who in the group here might you talk with about this challenge or idea based on their experiences, expertise?
EVALUATIONS
U.S. GOVERNMENT PARTNERS
FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

www.feedthefuture.gov