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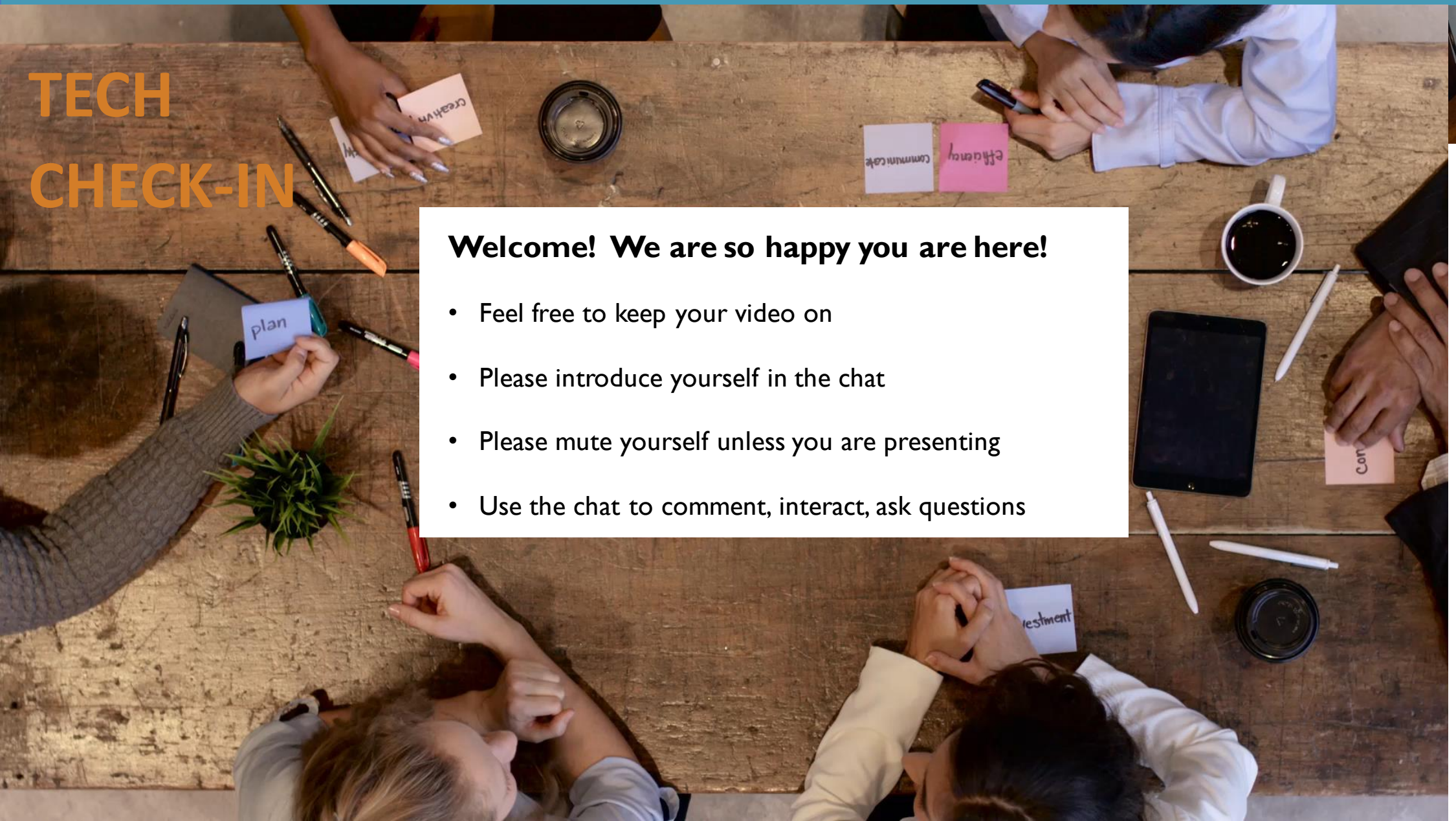
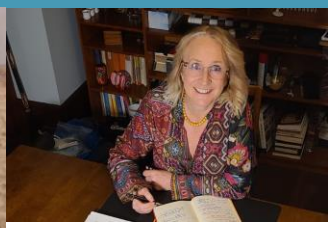
TECH CHECK-IN



Welcome! We are so happy you are here!

- Feel free to keep your video on
- Please introduce yourself in the chat
- Please mute yourself unless you are presenting
- Use the chat to comment, interact, ask questions



Andrea Bohn

ZOOM POLL

Have you ever attended a Livestock Systems Innovation Lab event before?

- ❑ Yes, several
- ❑ Yes, once before
- ❑ No, this is my first one

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Innovation Platform Meeting

– ETHIOPIA –

Held virtually on
March 23, 2021

From 2 to 4 pm EAT

FEED THE FUTURE INNOVATION LAB FOR LIVESTOCK SYSTEMS

USAID FROM THE AMERICAN PEOPLE

BILL & MELINDA GATES foundation

ILRI INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

CGIAR

UF IFAS UNIVERSITY of FLORIDA

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WELCOME AND OPENING REMARKS

Dr. Gbola Adesogan
Director of the Feed the Future Innovation Lab for Livestock Systems and the Food Systems Institute, University of Florida, USA

Dr. Yirgalem Gebremeskel
Livestock Program Management Specialist and Tech Advisor, USAID/Ethiopia

Dr. Siboniso Moyo
Director General's Representative of ILRI, Addis Ababa, Ethiopia

MEETING PURPOSE

1. Share key research findings from Phase I
2. Describe research and local capacity development plans for Phase II
3. Prepare prospective applicants for the forthcoming Request for Applications

PHASE I

SELECTED RESEARCH FINDINGS

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Linking cattle nutrition to human nutrition: a value chain approach to improving the production, handling, and consumption of animal source foods in Ethiopia

Kansas State University; Haramaya University; Ethiopian Institute for Agricultural Research; Texas Tech University; Hawassa University

Forage Domain:

- Showed existence of nutritional quality variations among sorghum landrace collections of Ethiopia –important for selection and improvement .
- Identified increasing the seeding rates for dual-purpose sorghum varieties as a promising farm management strategy for increasing palatability without compromising dry matter yield.

Ruminant Nutrition:

- Recommended integrating pigeon pea into food crops to mitigate cattle nutrient deficiencies while improving soil fertility.
  - ✓ Example: Devoting 0.1 ha of land for pigeon pea production can replace 800 kg of purchased concentrate without negative impacts on growing or lactating cattle productivity.

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Linking cattle nutrition to human nutrition: a value chain approach to improving the production, handling, and consumption of animal source foods in Ethiopia

Kansas State University; Haramaya University; Ethiopian Institute for Agricultural Research; Texas Tech University; Hawassa University

Food Safety:

- Detected Salmonella enterica isolates from abattoir facilities and beef carcasses
- Found that cross-contamination from hides contributed to *Salmonella enterica* contamination of beef carcasses.

Human Nutrition and Health:

- Observed a very low consumption practices of AFS in the study areas .
  - ✓ Reasons: Lack of access (70%), less affordability (80%) and ownership were identified as key determinants for low ASFs consumption.

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Addressing Young Stock Mortality in smallholder farms and pastoral herds of Ethiopia

University of California Davis; Addis Ababa University; University of Gondar; National Animal Health Diagnostic and Investigation Center

- Identified variety of pathogens causing diarrhea & respiratory diseases in young calves.
- *Cryptosporidium parvum* infection was the most common diarrheal pathogen identified.
- Identified risk factors for positive enteric pathogen (late/failed colostrum feeding, dystocia or poor vigor at birth, housing type & house hygiene).
- Improving producer knowledge and practices regarding colostrum feeding, farm hygiene and husbandry practices were part of the minimum intervention packages (MIPs).
- Implementation of MIPs significantly reduced young livestock mortality in all areas for all species.

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Improving the evidence and policies for better performing livestock systems in Ethiopia

International Food Policy Research Institute (IFPRI); Ethiopian Development Research Institute (EDRI); Ethiopian Strategic Support program (ESSP); Ethiopian Institute of Agricultural Research (EIAR)

Theme 1: Understanding the dairy value chain:

- Looked at temporal changes in dairy value chains- noticed important changes over time (upstream, midstream, and downstream levels).
- Assessed inclusiveness of dairy services- participation of small farms and farms in more remote areas disproportionally less.
- Looked at the extent the food safety was rewarded in the dairy value chain -no price premiums for the adoption of improved practices.
- Studied effect of fasting on dairy performance, markets, and consumption by children.
    - reduced annual dairy consumption by approximately 12% nationally; contributed to larger price swings; associated with increased milk consumption by the children of dairy farmers.

Improving the evidence and policies for better performing livestock systems in Ethiopia

International Food Policy Research Institute (IFPRI); Ethiopian Development Research Institute (EDRI); Ethiopian Strategic Support program (ESSP); Ethiopian Institute of Agricultural Research (EIAR)

- Assessed the extent of post-harvest losses (PHL) in liquid milk value chains- estimated overall PHL of 4.3%.
- Analyzed the impact of the Covid19 pandemic on the dairy value chain- documented significant drop in the demand for raw milk, but steady - or even higher consumption of pasteurized & powder milk.

Theme 2: Understanding consumption and markets of ASF: A national analysis:

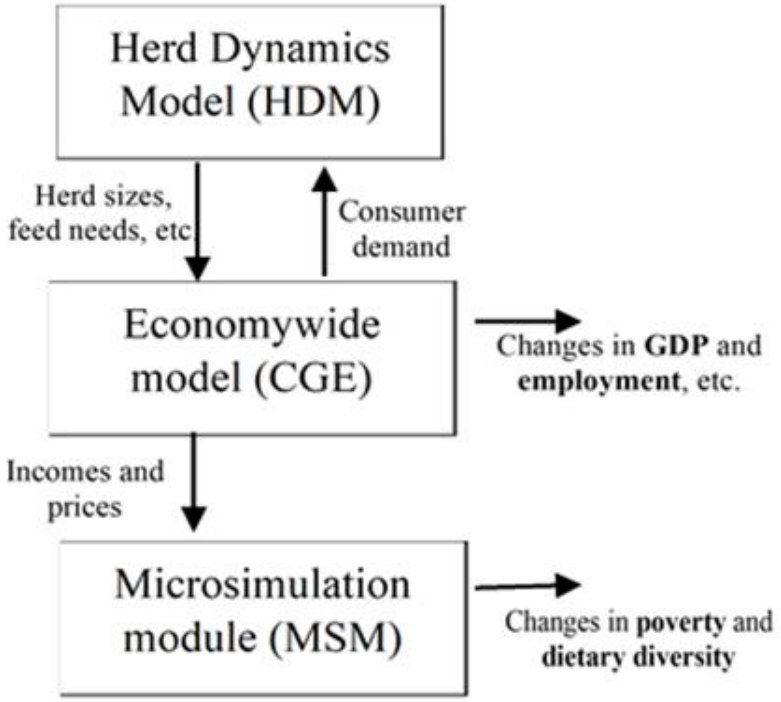
•Documented the changing ASF consumption patterns and made predictions on future price changes:

- real expenditures on ASF increased by 50 % over the 15-year period.
- national ASF consumption will increase by 165% by 2030.

•Looked at ASF prices in the country: real prices of all nutritionally rich food groups increased between 19 & 62% over the period 2007 to 2016.

Modeling livestock system dynamics and economywide policy impacts in Ethiopia

International Food Policy Research Institute (IFPRI), USA; Policy Studies Institute (PSI), Ethiopia



The integrated model framework

- Identified factors enhancing dairy sector productivity such as improved access to livestock services and higher adoption of cross-bred cows.
- Highlighted income growth as the main driver of overall livestock system expansion.
- Showed that urbanization shifts demand patterns towards more processed ASFs.
- Demonstrated that economic-demographic changes affect demand for ASFs.

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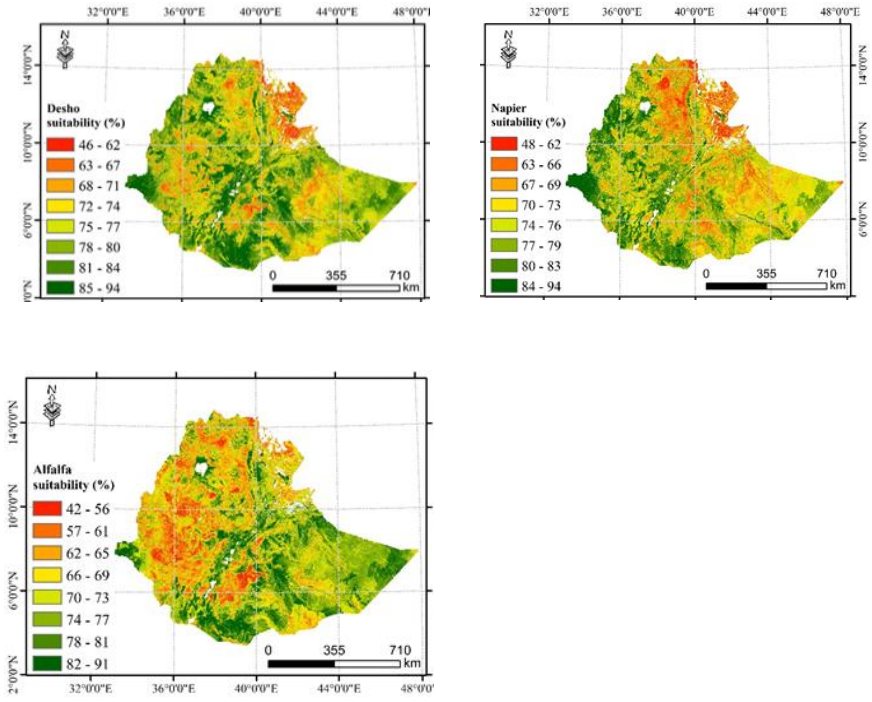
Application of integrated decision support systems to improve livestock systems in Ethiopia: Research and capacity development

Texas A&M University; Bahir Dar University; Ministry of Agriculture, Ethiopia

- Mapped the areas suitable for growing irrigated fodder (31%, 20% and 13% of the land is highly suitable for Desho, Napier, and Alfalfa , respectively)
- Found that the areas suitable for fodder productions are areas with sufficient ground-water that could be accessed using simple water-lifting technologies.
- Demonstrated how adoption of irrigated fodder and crossbred cows could improve human nutrition and income.
  - ✓ Example: Adoption of irrigated fodder & cross-bred cows found to substantially increase smallholder income & allow a 3-fold increase in milk consumption or a 28-fold increase in egg consumption.



Areas suitable for different irrigated fodder species

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Improving handling practices and microbiological safety of milk and milk products in Borana pastoral communities

Addis Ababa University; International Livestock Research Institute

- Trained 120 pastoralist women on hygienic milk production and handling practices. The intervention improved KAP of Women on hygienic milk production and handling to some extent.
- Found that a considerable share of milk samples were positive for drug-resistant pathogens.
- Found no difference in microbial load or quality attributes of traditional yogurt due to the type of wood used for smoking traditional utensils or the type of milk storage utensils (traditional vs stainless steel).
- Examined acceptability of stainless-steel milk containers by pastoralist women (stainless steel containers disliked for sociocultural reasons).

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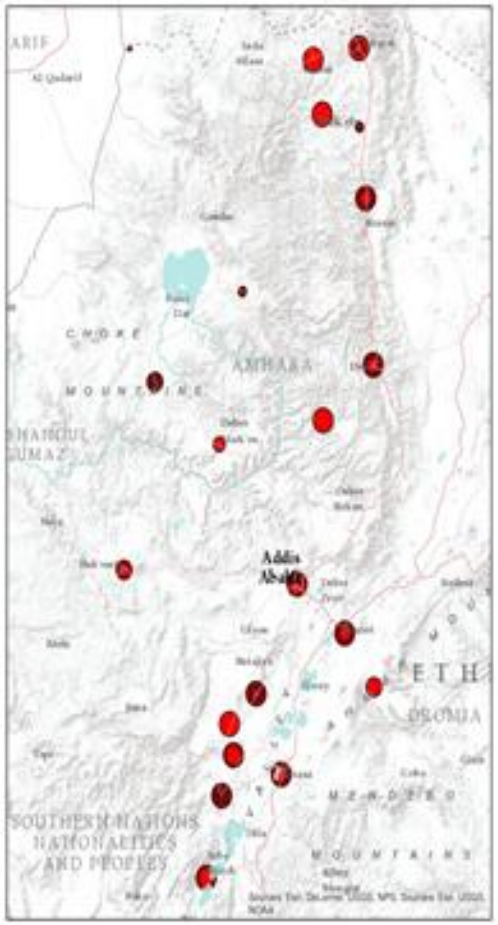
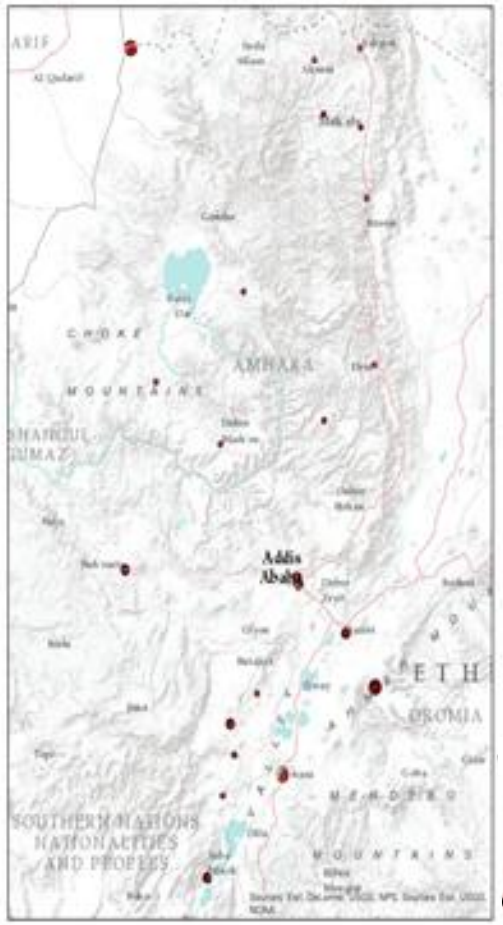
Mycotoxin prevalence and mitigation measures in Ethiopia

Kansas State University; Veterinary Drug and Feed Administration Control Authority (VDFACA); ACDI/VOCA

Total aflatoxin in oil cake samples



Total aflatoxin in non-oil cake samples



- Found no regional bias in the distribution of feed ingredient samples with mycotoxin concentrations.
- Found high concentrations of aflatoxin to be strongly associated with oil- seed cakes (noug, sesame, cottonseed, linseed, & soybeans).
- Findings prompted us to host a national level stakeholder meeting to discuss on aflatoxin prevention and control strategies.
- Initiated a follow up study to track the point of contamination of the oil-seed cakes by aflatoxin along the oil-seed cake value chain.

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The effect of passive surveillance training on animal health parameters, northern Ethiopia

University of Georgia; Foreign Animal Disease Diagnostic Laboratory (FADDL-VS-APHIS-USDA); Tigray Regional Animal Health Authority; Mekelle University

- Trained 450 farmers and 90 animal health workers in 15 woredas in Tigray region on awareness and reporting of livestock diseases.
- The training resulted in increased knowledge (92%) about the importance of reporting transboundary animal diseases.
- Observed improved passive surveillance for livestock diseases using a graphic book that has been translated into major local languages by FAO.

Q & A

ABOUT PHASE I

Find more detailed results:

https://livestocklab.ifas.ufl.edu/projects/

&

Attend upcoming thematic webinar series

PHASE II

RESEARCH PRIORITIES

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OVERARCHING GOAL

Contribute to more balanced diets, which include Animal-Source Foods (ASF), to ensure nutrition and food security for vulnerable populations.

SPECIFIC OBJECTIVES

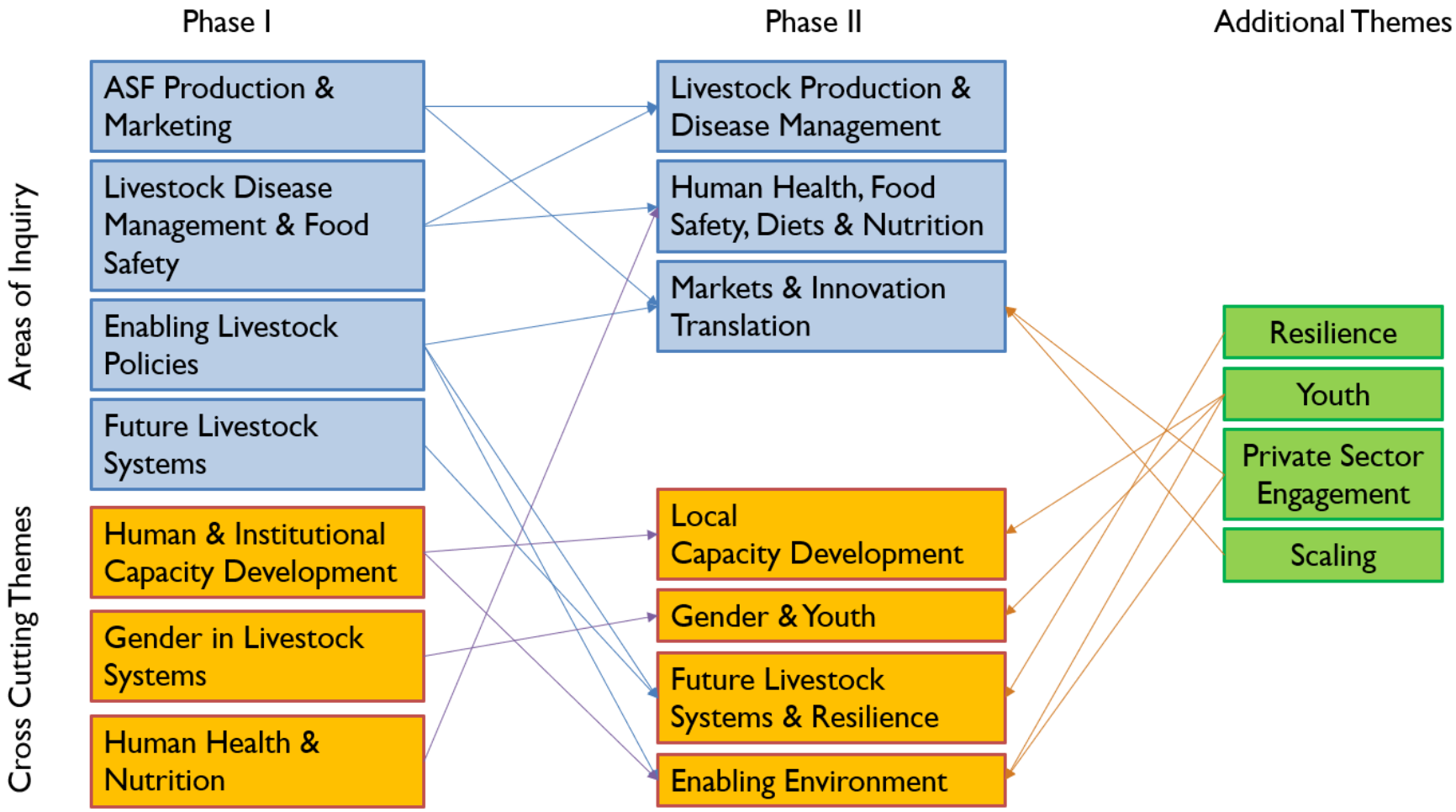
1. Sustainably improve livestock productivity and marketing and ASF consumption using appropriate improved technologies, capacity development, and policy advocacy;

2. Increase the resilience of vulnerable populations;

3. Reduce the environmental impact of livestock systems;

4. Advance the understanding of evolving livestock systems and their roles in food security, nutrition, and health.

TECHNICAL APPROACH



LSIL RESEARCH PORTFOLIO

Phase I Focus

- improve livestock feeds and feeding
- increase ASF consumption
- improve livestock disease surveillance and mitigation
- strengthen markets
- improve food safety
- foster a conducive livestock policy environment

Phase II Focus

Continue working in Phase I areas but stronger emphasis on improving dietary diversity and adequacy with ASF by:

- reducing ASF production costs,
- increasing ASF safety and markets,
- reducing ASF consumption barriers.

More research on environmental enteric dysfunction (EED) to improve nutritional outcomes.

PRIORITIES IN ETHIOPIA

- Conduct more research on improving resilience of farms and farming systems in small ruminant and cattle value chains in pastoral areas of Ethiopia.
- Research designed to strengthen smallholder production systems in value chains prioritized by the Ethiopian Livestock Master Plan (LMP) such as dairy cattle and poultry.
- Develop further resilient feed and forage systems building on earlier research findings and in close coordination with the EQUIP project in Ethiopia that also works in this area.
- Increase the use of geospatial tools (e.g., SERVIR) to improve pastoral resources management.
- Continue research on livestock diseases, including assessing the economic impacts of diseases (morbidity & mortality) on livestock production and revenue at the household, village, regional, or national levels.
- Assess the resilience of the local and regional livestock trade system and its markets. Emphasize market diagnostics that consider market functionality at the micro and aggregate levels while viewing market performance through the lens of resilience.

Q & A

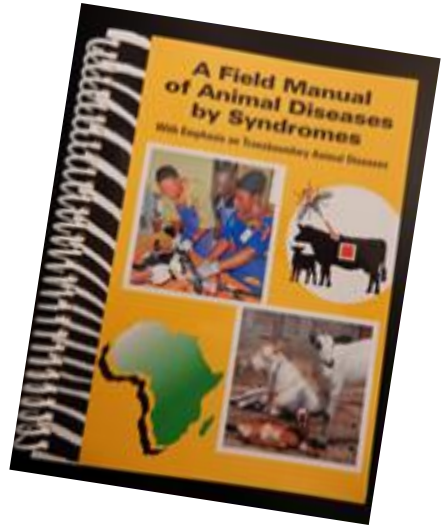
ABOUT PHASE II

RESEARCH PRIORITIES

ADOPTION PATHWAYS AND SCALABILITY

SCALING EXAMPLE: ETHIOPIA

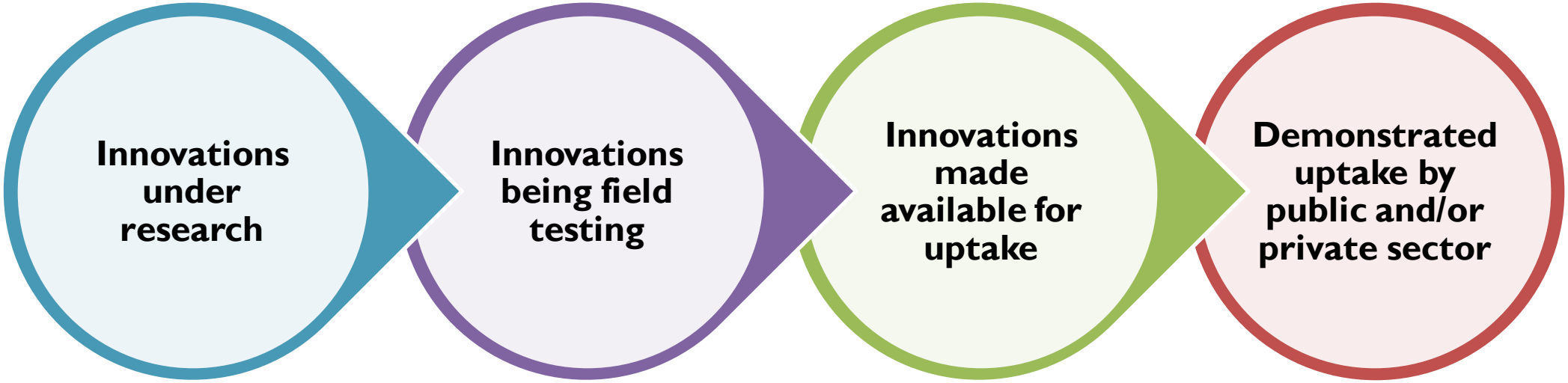
Innovation	Enhanced awareness about recognition and reporting of public and private good animal diseases among farmers, public & private veterinarians
Effect	Improved reporting of diseases from 75% (untrained) to 92% (trained)
Scaling out	Each trained farmer trained at least additional 4 farmers (450X4= 1800) Each animal health worker trained additional 10 people (90X10= 900)
Driver	Significance of the problem; sense of ownership, clear and simple methodology; affordability



SCALING EXAMPLE: ETHIOPIA

Scaling up	FAO Emergency Center for Transboundary Animal Diseases (ECTAD) as key partner
	Translated the training manuals to major Ethiopian languages (Amharic, Oromifa & Tigringa).
	Committed to train veterinarians in all the regions in the country.
	Train farmers across the country in collaboration with Ethiopian universities.
Driver	Regular information sharing with key stakeholders
	Strong interest on part of FAO ECTAD to control transboundary livestock diseases.
	Cost effectiveness of the intervention.
Lessons learnt	Network well at national and international levels
	Share information regularly to generate interest and open up ways for becoming involved
	Use clear, easy to understand and accessible training material

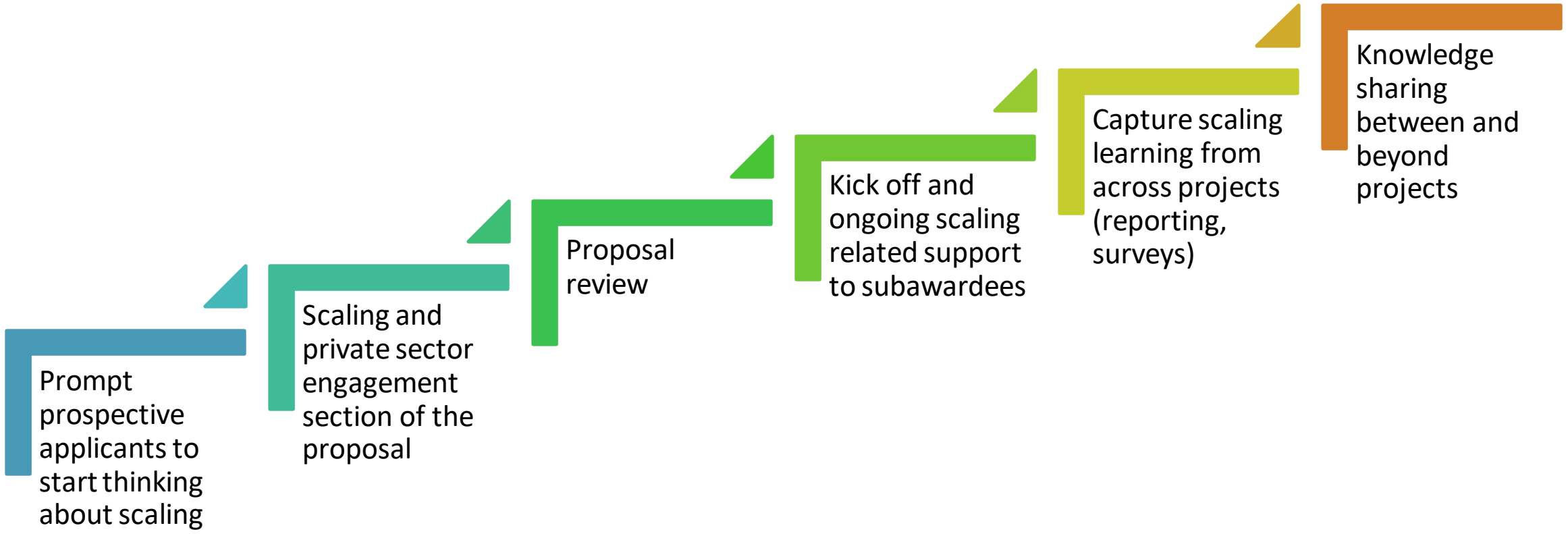
LINEAR APPROACH



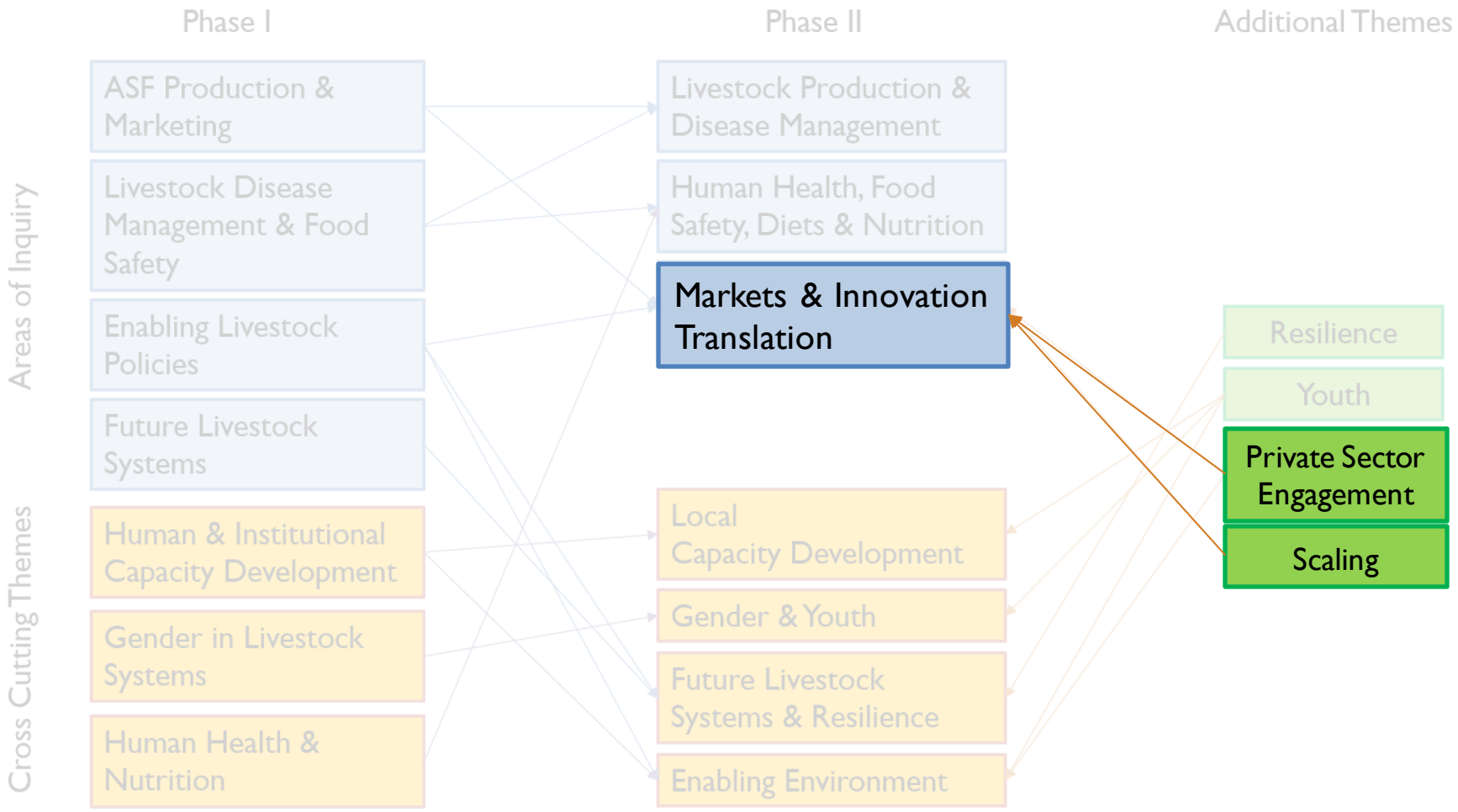
At each stage it matters

- **WHO is involved in WHAT role**
- **WHAT questions are being asked, what information is collected by WHOM**
- **HOW findings are shared**
- **WHETHER adjustments can be made**

PURSUING THE SCALING AMBITION THROUGHOUT THE PROJECT CYCLE



AOI MIT – LED BY DR. MULLALLY



PROPOSALS MAY NEED TO

- **Demonstrate that there is demand** for the prospective findings and innovation(s) arising from your work
- Describe the **potential applicability, relevance, feasibility, and scalability** of the work you propose to undertake.
- Identify the likely **adoption pathway**: Public, PPP, or Private?
- Include a plan for **determining the farm or business level costs and benefits** of adopting the innovation(s)
- Include a plan for **assessing the country/economy wide benefits**

PARTNERSHIPS ARE KEY

Find partners and key stakeholders that will facilitate adaptation and scale out of the innovation(s) arising from your work.

- Who could assist with the "business case' and economic assessments?

- Who can provide complementary products and services to form an attractive innovation package?

How do you plan to engage with them throughout the research phase?

SOME OF OUR PHASE I PARTNERS IN ETHIOPIA:

Public sector

- Ministry of Agriculture
- Agricultural Transformation Agency
- Veterinary Drug and Animal Feed Administration and Control Authority

Research centers and institutes

- Ethiopian Institute of Agricultural Research
- Ethiopia Meat and Dairy Industry Development Institute
- Ethiopia National Animal Health Diagnostic and Investigation Center
- Ethiopia Public Health Institute
- International Food Policy Research Institute
- Policy Research Institute
- Yabello Pastoral and Dryland Agriculture Research Centre

Universities

- Addis Ababa University
- Bahir Dar University
- Ethiopian Civil Service University
- Gondar University
- Haramaya University
- Hawassa University
- Mekelle University
- Oda Bultum University

Programs and projects

- Africa RISING
- Project Mercy

Private sector

- Eden-Field Agri-seed Enterprise

Q & A

ABOUT PHASE II

ADOPTION PATHWAYS AND SCALABILITY

LOCAL CAPACITY DEVELOPMENT PHASE II

LOCAL CAPACITY DEVELOPMENT

- Informed by forthcoming USAID policy
- Local capacity development (LCD) will measure success by the strengthened performance of local actors and local systems in achieving and sustaining demonstrable results
- The indicator – CBLD9 – measures the percentage of improved performance of a system or organization

LIVESTOCK SYSTEMS RESEARCH

- Research is embedded in existing systems
  - Research organizations including universities
  - Situated in and funded by different ministries and donors
  - Organizational culture
  - Institutional structures

- Livestock research is one piece of the entire livestock system

- Priorities are determined by and shift according to who is engaged

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LIVESTOCK SYSTEMS INNOVATION LAB
PHASE I & PHASE II

Capacity Development Activities

Phase I – Emphasis on technical and soft skills training

Phase II – Emphasis on strengthening organizations and enabling environment

THE GROUNDWATER APPROACH

PRIMARY ACTIVITIES IN PHASE II

- **Host LCD collaboration processes in each country**
  - Co-designing pilot projects to address systemic issues in livestock systems research
  - Updating on current situation and trends
- **Provide technical support** to and collaborate with subawardees, AOIs and CCTs

THE LCD PROCESS

ENGAGEMENT & COLLABORATION

- Engage old and new partners and stakeholders
- Engage policy and decision-makers
- Collaborate with subawardees on LCD activities
- Collaborate with Enabling Environment CCT

ANALYSIS & ROADMAP

Developing and refining LCD roadmaps to strengthen local livestock research systems

- ✓ Reality check 1: Where could capacity development solve one of the identified systemic problems?
- ✓ Reality check 2: How to have an impact with a pilot project?
- ✓ Reality check 3: What institutional commitments and networks are needed to initiate and sustain local systems changes?
- ✓ Reality check 4: Requires higher level administration to participate. Is this realistic?

DESIGN & MONITORING

Design:

Through an RFA and competitive award process

Specifics will depend in part on the road map consultations

Monitoring:

By country coordinators and LCD team

ZOOM POLL

Would you like to join the launch meeting for the consultative LCD roadmap development?

- ❑ Yes
- ❑ Maybe
- ❑ Probably not

THOSE WHO SAID YES / MAYBE:

Follow link to the Google spreadsheet

https://docs.google.com/spreadsheets/d/1WaSZgqC4FVigJgsf4QCrOMkPeh9qZKE9e08xj2I0_24/edit?usp=sharing *(see chat, await follow up email)*

1. **Enter <u>your</u> full name, title, institution and contact information.**
2. **Add contact details for <u>others</u> who you think should be invited.**

Q & A

ABOUT PHASE II

LOCAL CAPACITY DEVELOPMENT

TYPES OF RESEARCH PROJECTS IN PHASE II

This year we aim to award (in each country)

- **1 longer term REACH project**
- **2-3 short-term FOCUS projects**
- **Funding for Local Capacity Development**

Future

- **Add-on projects**
- **Private Sector scaling projects**
- **Challenge project**

TEAM COMPOSITION AND ELIGIBILITY

- Target country & US/Western institutions
- Inclusion of Minority Serving Institutions (MSI) is highly encouraged
- Private sector, civil society, non-governmental organizations (NGO)

STRONG PARTNERSHIPS ARE KEY TO SUCCESS

- Possess complementary technical skills
- Have longstanding experience and network of contacts in target country
- Can navigate ethical clearance and fulfill compliance needs
- Are suitable bridging or scaling partner

NEXT STEPS

Complete **Event evaluation survey** *(see link in chat & email)*

Stay tuned **Join the mailing list (newslettter)**
https://livestocklab.ifas.ufl.edu/contact/

April 2021 **Global, pre-RFA informational webinars:**

- **AOI Human Health, Food Safety, Diets & Nutrition** (April 9)
- **Application requirements and processes** (April 14)

May 2021 **Anticipate release of the RFA**

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CLOSING REMARKS

Dr. Gbola Adesogan

Disclaimer

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