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INNOVATION PLATFORM MEETING

RÉUNION DE PLATEFORME D'INNOVATION

– BURKINA FASO –

April 7, 2021
1 to 3 pm GMT

FEED THE FUTURE INNOVATION LAB FOR LIVESTOCK SYSTEMS

USAID FROM THE AMERICAN PEOPLE

BILL & MELINDA GATES foundation

ILRI CGIAR

UF IFAS UNIVERSITY of FLORIDA

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WELCOME AND OPENING REMARKS

MOT DE BIENVENUE D'OUVERTURE

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

Ms. Katherine Younker
Acting Country Representative, Resilience Coordinator, USAID/Burkina Faso

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

PHASE I
RÉSULTATS DE RECHERCHE SÉLECTIONNÉS

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Enhancing the productivity of small ruminants through improved and cost-effective feeding and animal health interventions in Burkina Faso & Niger

Améliorer la productivité des petits ruminants grâce à des interventions améliorées et rentables en matière d'alimentation et de santé animale au Burkina Faso et au Niger

Mercy Corps, INERA, INRAN, Texas A&M University

Objectives

- Improve the production, transformation, conservation and commercialization of nutritionally-rich and cost-beneficial fodder and improved animal feed.
- Improve the health and productivity of livestock through better management of parasites that prevent optimal utilization of the nutrients from supplemental feed and fodder.
- Support improved implementation of policies related to small ruminants.

Objectifs

- Améliorer la production, la transformation, la conservation et la commercialisation des fourrages riches en nutriments et à bon rapport qualité-prix,
- Améliorer la santé et la productivité du bétail grâce à une meilleure gestion des parasites qui empêchent une utilisation optimale des éléments nutritifs provenant des aliments complémentaires et du fourrage ;
- Soutenir la mise en œuvre améliorée des politiques relatives aux petits ruminants.

Enhancing the productivity of small ruminants through improved and cost-effective feeding and animal health interventions in Burkina Faso & Niger

Mercy Corps, INERA, INRAN, Texas A&M University

- Found gastrointestinal parasites to be present in 91% of the feces samples collected from 2086 sheep.
    - *Strongyloides sp., Nematodirus spp.* and *Coccidia* were prevalent throughout the year in sheep, but others including *Hemonchus* and *Fasciola* showed a strong seasonal pattern.
- Identified 39 species of forage plants with medicinal properties traditionally used by herders to control small ruminant parasites.

Yield advantage of improved vs. local varieties:

- **Sorghum** SEPON-82 — grain yield: 63% higher; forage yield: 17% higher
- **Millet** Maïwa — forage yield: 78% higher
- **Cowpea** KVX 745-11P — forage yield: 125% higher; protein in DM: 21% vs. 15%

- Developed formulas for multi-nutritional blocks for supplementation of small ruminants and tested a mechanical press to simplify block production
- Increased the profit per fattened sheep by 66% using the rations formulated by the project in comparison to traditional practices

Also:

- Drafted four notes to policy makers, including one on the marketing of small ruminants, which is the subject of a national advocacy campaign.

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Enabling value chains to create sustainable income for vulnerable people in crop-livestock systems of Burkina Faso and Niger

Renforcement des chaînes de valeur pour générer des revenus durables pour les populations vulnérables d'agro-pasteurs au Burkina Faso et au Niger

ICRISAT, UNIVERSITE AMD NIGER, INERA

Objectives

- Improve crop-livestock systems through inclusive value chains and conducive policy environments.
- Improve feed and feeding systems and animal health to improve animal-source food.
- Develop scenarios to improve crop-livestock farming systems

Objectifs du projet

- Améliorer les chaînes de valeur des systèmes agriculture-élevage ainsi que l'environnement des politiques ;
- Améliorer les aliments pour animaux, les systèmes d'alimentation et la santé animale ;
- Élaborer des scénarios possibles pour améliorer les systèmes d'intégration agriculture-élevage.

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Enabling value chains to create sustainable income for vulnerable people in crop-livestock systems of Burkina Faso and Niger

ICRISAT, UNIVERSITE AMD NIGER, INERA

- Established an innovation platform to jointly identify and address develop strategic entry points and actions to improve crop-livestock value chains.
- Identified major constraints, including:
  - low access to inputs, feed shortages,
  - access to output markets
  - poor veterinary care,
  - lack of knowledge,
  - little access to credit.

- improved the collection, transformation, conservation, and marketing of **feed from crop residues**.
- identified **best suited dual-purpose crop varieties** through participatory evaluation with farmers (e.g., sorghum variety Sariasso 14 produces 42% more biomass)

- identified **high demand for good quality meat** from urban meat processors in Ouagadougou
- **trained 55 livestock farmers** (with 146 sheep for family-based fattening) on appropriate feeding strategies using crop residues and good animal health care.
- **organized field visit for meat processors** to interact with the livestock farmers in Korsimoro (65 km from O.)

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"Un Oeuf"

Improving nutrition in children under two through increased egg consumption in Burkina Faso

Améliorer la nutrition des enfants de moins de deux ans grâce à l'augmentation de la consommation d'œufs au Burkina Faso

University of Florida, INERA

Objectives

1) Increase ASF production through gifting of chickens and provision of monthly agricultural training on proper chicken husbandry.
2) Increase ASF consumption, particularly eggs, through innovative behavior change package and culturally-tailored, integrated nutrition and agriculture trainings.
3) Build resiliency by increasing food security in targeted households.
4) Promote gender equality by engaging women in animal extension services and training female caregivers in chicken husbandry practices to increase flock size.
5) Reduce zoonotic diseases through integrated nutrition and agriculture training and WASH sanitation education.

Objectifs du projet

1) Augmenter la production d'ASF en donnant des poulets et en leur offre une formation agricole mensuelle sur l'élevage adéquat du poulet.
2) Augmenter la consommation d'ASF, en particulier les œufs, grâce à un ensemble innovant de changements de comportement et à des formations nutritionnelles et agricoles intégrées et adaptées à la culture.
3) Renforcer la résilience en augmentant la sécurité alimentaire dans les ménages ciblés.
4) Promouvoir l'égalité des sexes en faisant participer les femmes aux services de vulgarisation des animaux et en intivrant les femmes qui s'occupent d'elles aux pratiques d'élevage des poulets afin d'accroître la taille des troupeaux.
5) Réduire les maladies zoonotiques grâce à une formation intégrée en nutrition et en agriculture et à l'éducation sanitaire.

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"Un Oeuf" - Improving nutrition in children under two through increased egg consumption in Burkina Faso

University of Florida, INERA

- Increased infant egg consumption from 0.3 to over 6 eggs weekly, leading to significant reduction of wasting.
- Demonstrated that integrated nutrition and agriculture trainings for mothers, coupled with gifting of chickens, can
  - significantly increase poultry production
  - led to reduced wasting and underweight
- Results were featured on national TV news and prompted discussions with policy makers and other stakeholders on how to scale and sustain the intervention.

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Enhancing egg consumption through women's empowerment in Burkina Faso

Amélioration de la consommation d'œufs grâce à l'autonomisation des femmes au Burkina Faso

University of Florida, INERA

Objectives

1) Examine the relationship between women's empowerment and the adoption of behavior change to increase animal-source food consumption among infants and young children.
2) Understand the role of women's empowerment in the effectiveness of behavior change tools.
3) Understand the role of the *Un Oeuf* project on women's empowerment.
4) Examine the potential of chicken ownership plus training to improve egg consumption.
5) Evaluate how these concepts might apply to neighboring countries.

Objectifs

- Examiner la relation entre l'autonomisation des femmes et l'adoption d'un changement de comportement pour accroître la consommation alimentaire d'origine animale chez les nourrissons et les jeunes enfants.
- Comprendre le rôle de l'autonomisation des femmes dans l'efficacité des outils de changement de comportement.
- Comprendre le rôle du projet Un Oeuf sur l'autonomisation des femmes.
- Examiner le potentiel de la propriété du poulet ainsi que la formation pour améliorer la consommation d'œufs.
- Évaluer comment ces concepts pourraient s'appliquer aux pays voisins.

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Enhancing egg consumption through women's empowerment in Burkina Faso

University of Florida, INERA

- Training increased women's decision making about how household eggs were used, especially if chickens were given at the time the training started.
- Mothers in all groups wanted to continue producing and feeding eggs and to care for the chickens.
- Laminated flipbooks were important to mothers to remember the training on nutrition, food handling, and caring for the chickens.

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Intervention in low guinea fowl productivity and consumption of related products in Burkina Faso

Intervention dans la faible productivité de la pintade et la consommation de produits connexes au Burkina Faso

University of Georgia, ASUDEC

Objectives

- Produce fly larva and establish the optimum percentage of fly larva meal (for protein) in guinea fowl diet for growth and egg production.
- Establish the efficacy of integrating the three practices of fly larvae production for guinea fowl feed, synchronized hatching of guinea fowl eggs by chicken hens, and egg storage with the YaiKuula over long storage times before hatching, for year-round production of healthy keets.

Objectifs

- Produire des asticots de mouches et établir le pourcentage optimal d'incorporation de la farine de ces asticots (protéine) dans le régime alimentaire de croissance et de production d'œufs de pintade ;
- Evaluer l'efficacité de trois types de refroidissement (réfrigération) pour la conservation des œufs frais de pintade et la synchronisation des éclosions dans les conditions climatiques du Burkina Faso.

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Intervention in low guinea fowl productivity and consumption of related products in Burkina Faso

University of Georgia, ASUDEC

- Increase guinea fowl productivity by combining egg preservation, synchronized hatching and improved feeding
- Poultry manure appears to be the best substrate for fly larvae production
- A locally produced, low-cost evaporative cooling device (YaiKuula) preserves guinea fowl egg viability for hatching by chicken hens, especially for long storage (8-14 days) periods

Assessment of aflatoxin-related health risk for milk consumers in rural and peri-urban areas in Burkina Faso

ILRI, INERA

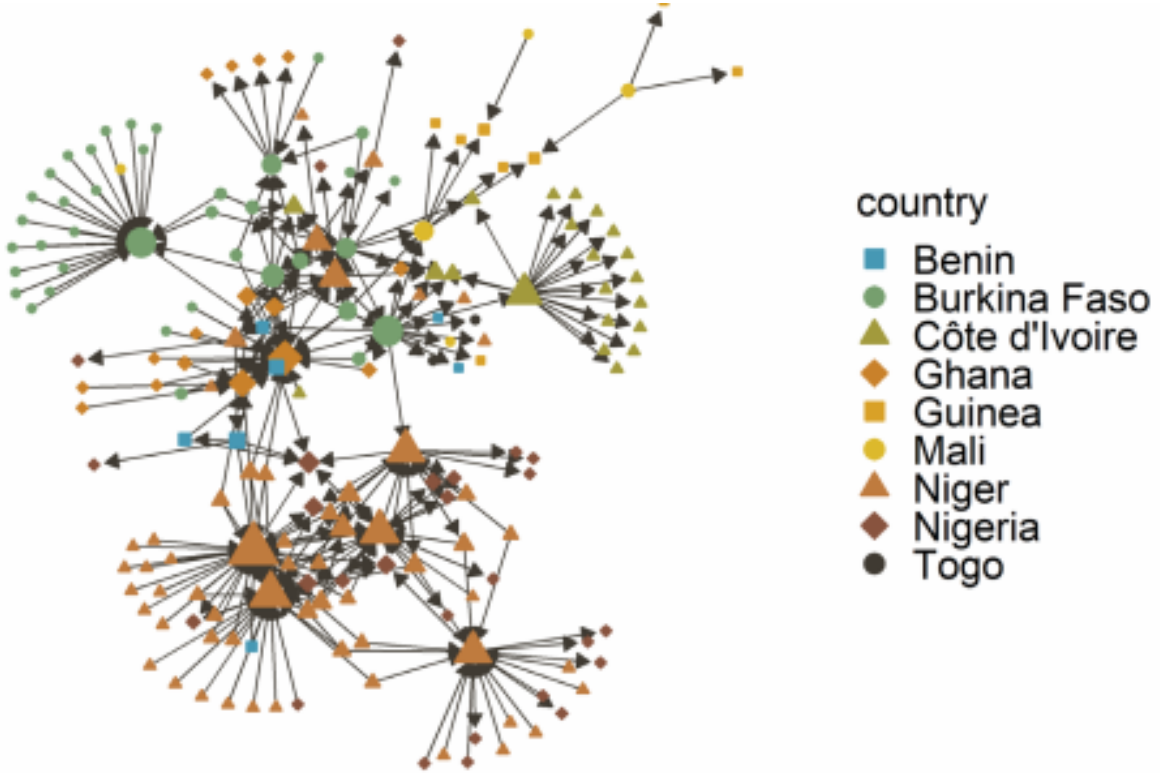
- Improved diagnostic capacity for the detection of aflatoxins in milk and animal feed and showed high levels of contamination of some feeds.
- Developed risk assessment model using ModelRisk software
- Aflatoxin in milk (AFM1) is much less toxic than aflatoxin in feed (AFB1)
- 52% of feed and 100% of milk samples, respectively, met US aflatoxin standards

ADDITIONAL FINDINGS

Analyzed livestock trade data across the Sahel in collaboration with the Permanent Interstate Committee for Drought Control in the Sahel

Trade networks

- are somewhat resilient as they use multiple connections to markets
- but have systemic vulnerabilities due to the presence of a few critical hubs at or near national borders.



Network of animal movements between markets, from CILSS's database in 2017[9].

Q & A

ABOUT PHASE I

Find more detailed results:

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

&

Attend upcoming thematic webinar series

PHASE II
RESEARCH PRIORITIES

PHASE II
PRIORITÉS DE RECHERCHE

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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

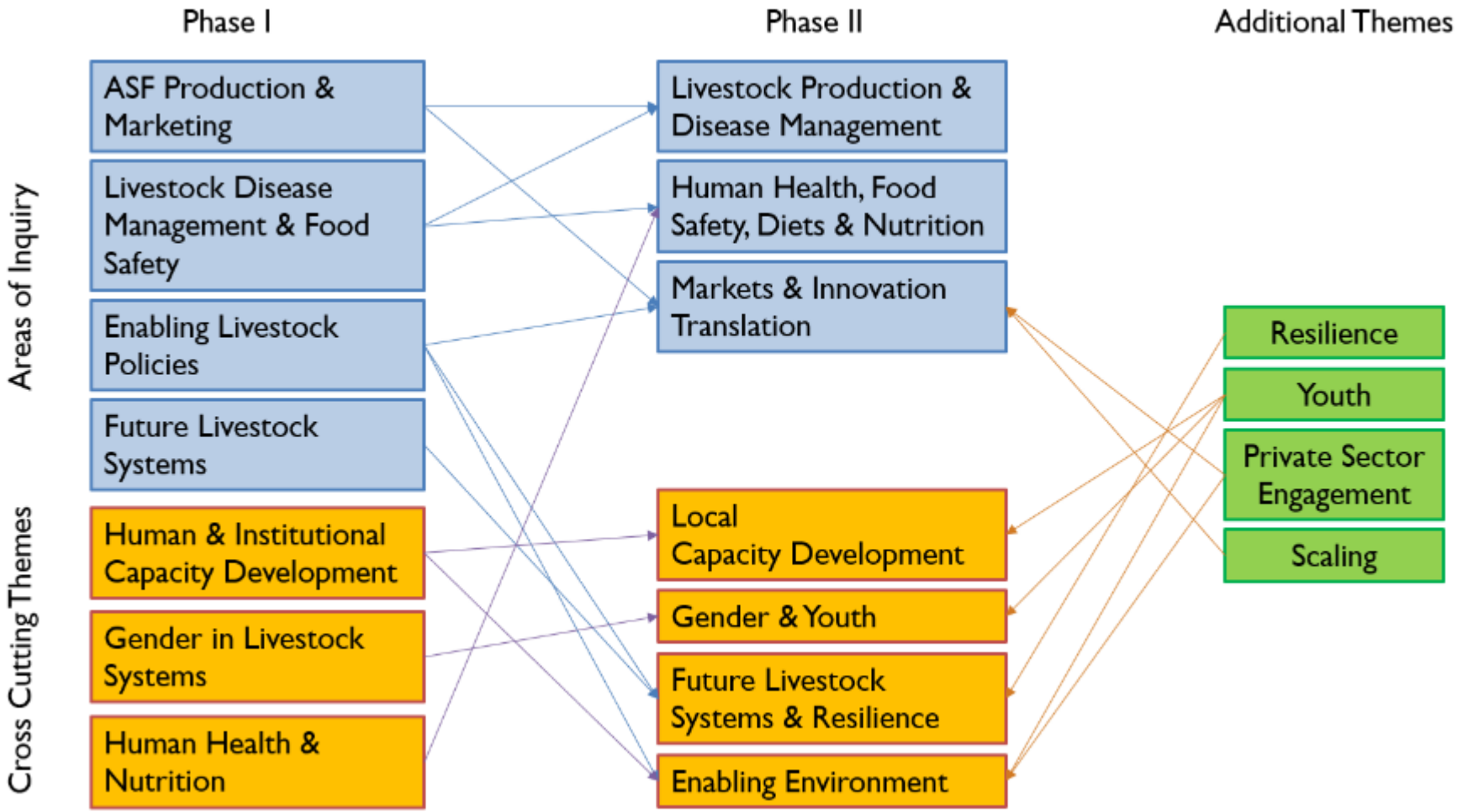
1. Sustainably improve livestock productivity and marketing and ASF consumption using appropriate improved technologies, capacity development, and policy advocacy;

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.

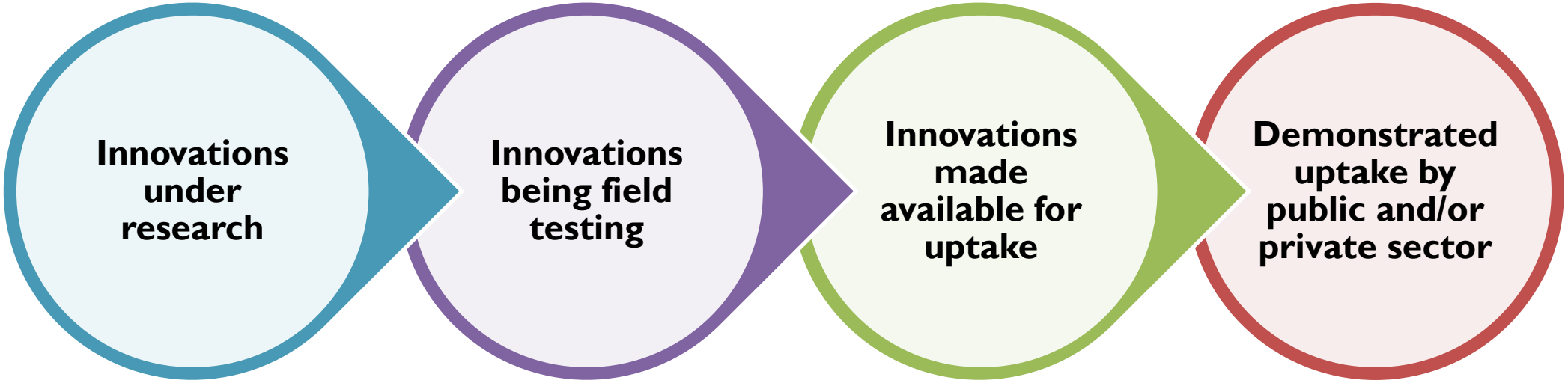
More research on environmental enteric dysfunction (EED) to improve nutritional outcomes.

PRIORITIES IN BURKINA FASO

- Resilience of agro-pastoral systems and farms including further work on feed and forage systems, as well as improving livestock production and ASF marketing.
- Small ruminants and poultry will remain the priority livestock species.
- Continue research on livestock diseases.

ADOPTION PATHWAYS AND SCALABILITY

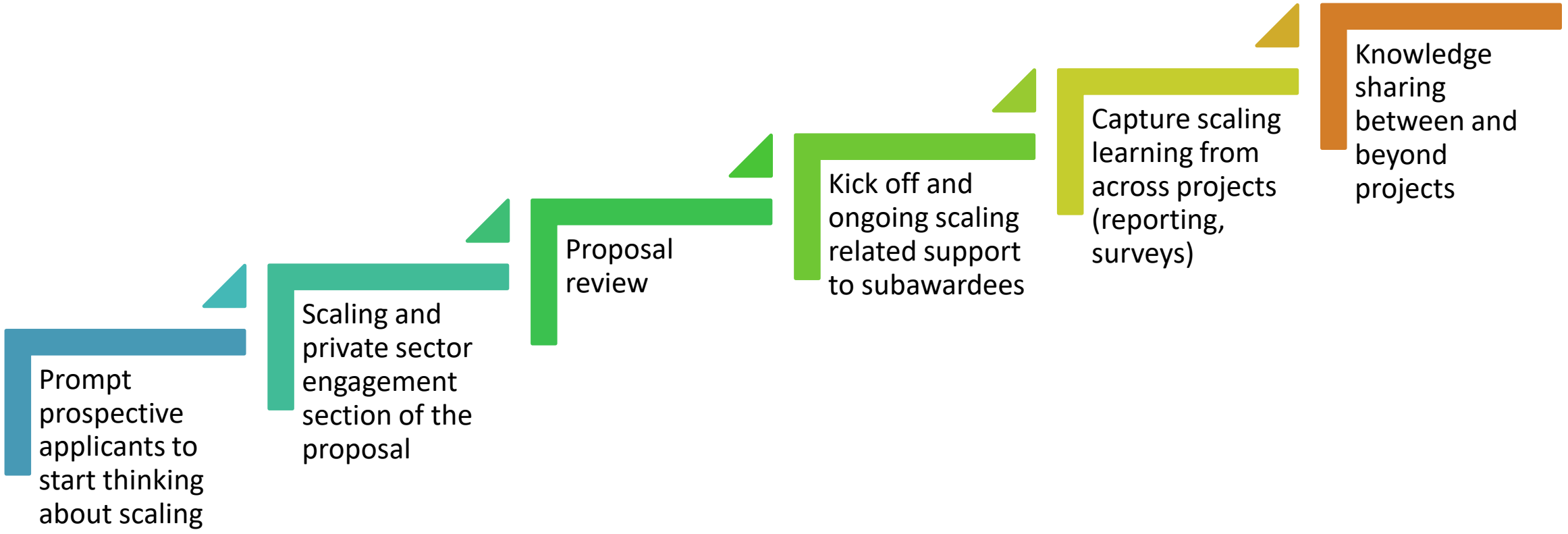
LINEAR APPROACH



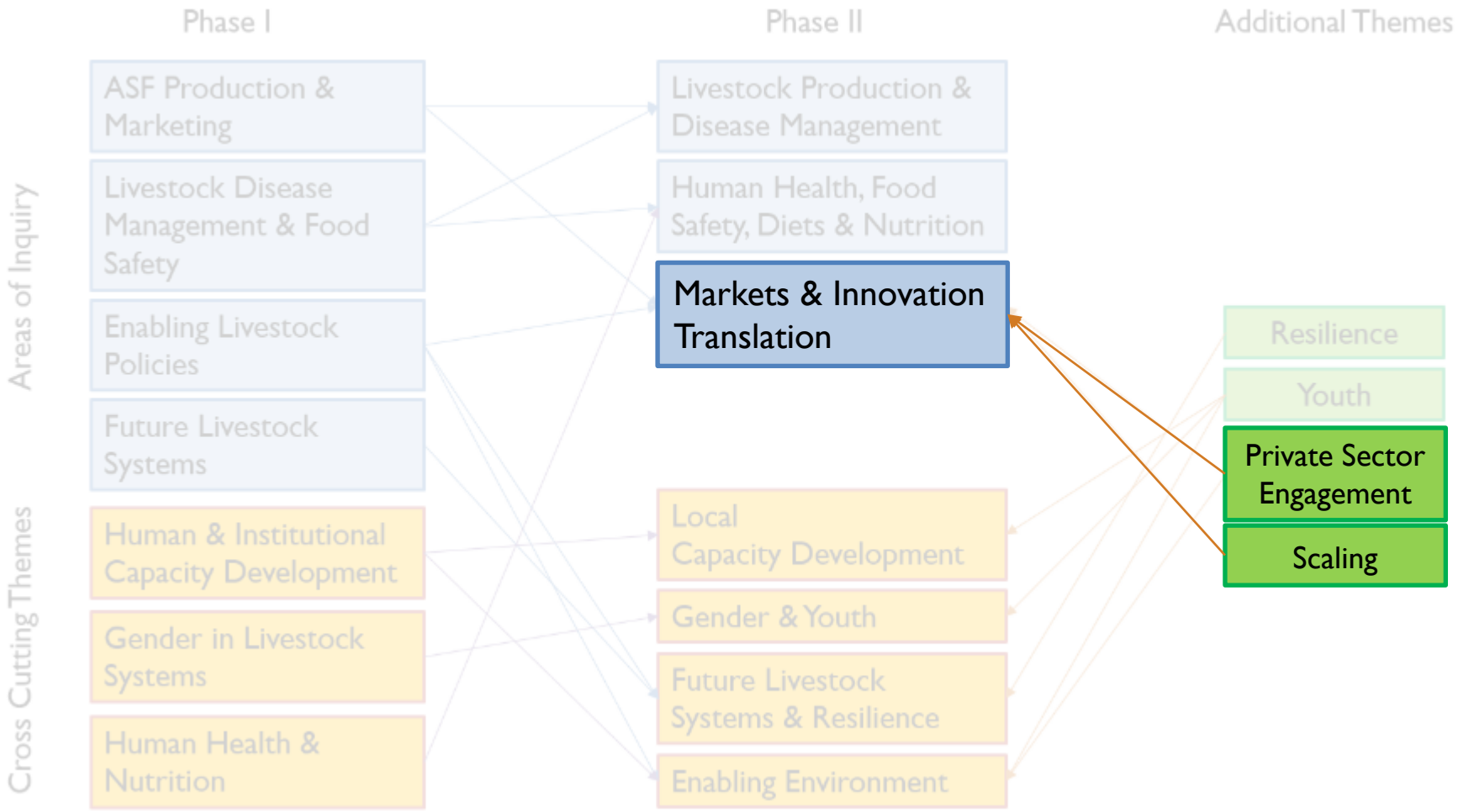
At each stage it matters

- **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:
CERTAINS DE NOS PARTENAIRES DE PHASE I:

- **Institut de l'environnement et de recherches agricoles (INERA)**
- **Université Nazi Boni de Bobo-Dioulasso**
- **Université Joseph Ki Zerbo (Ouagadougou)**
- **ONG ASUDEC (Africa's Sustainable Development Council)**

Q & A

ABOUT PHASE II

ADOPTION PATHWAYS AND SCALABILITY

Q & R

À PROPOS DE LA PHASE II

VOIES D'ADOPTION ET ÉVOLUTIVITÉ / DIFFUSION

LOCAL CAPACITY DEVELOPMENT PHASE II

RENFORCEMENT DES CAPACITÉS LOCALES 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

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

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THE GROUNDWATER APPROACH
L'APPROCHE DES EAUX SOUTERRAINES

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

- Engaging old and new partners and stakeholders
- Engaging policy and decision-makers
- Collaborating with subawardees on LCD activities
- Collaborating 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:

- Also through an RFA and competitive award process
- Specifics will depend in part on the road map consultations

Monitoring:

- By country coordinators and LCD team

WOULD YOU LIKE TO JOIN THE LAUNCH MEETING FOR THE CONSULTATIVE LCD ROADMAP DEVELOPMENT?

:

If yes, please follow link to the Google spreadsheet

https://docs.google.com/spreadsheets/d/1WaSZgqC4FVigJgsf4QCrOMkPeh9qZKE9e08xj210_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

Q & R

SUR PHASE II

DÉVELOPPEMENT DES CAPACITÉS LOCALES

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 (newsletter)**
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

CONCLUSION

Dr. Gbola Adesogan

Disclaimer

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