



Chăn-hênh: Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion in the Northwest Highlands of Vietnam

Work package 1: Technologies and practices

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Work Package I: Technologies and practices

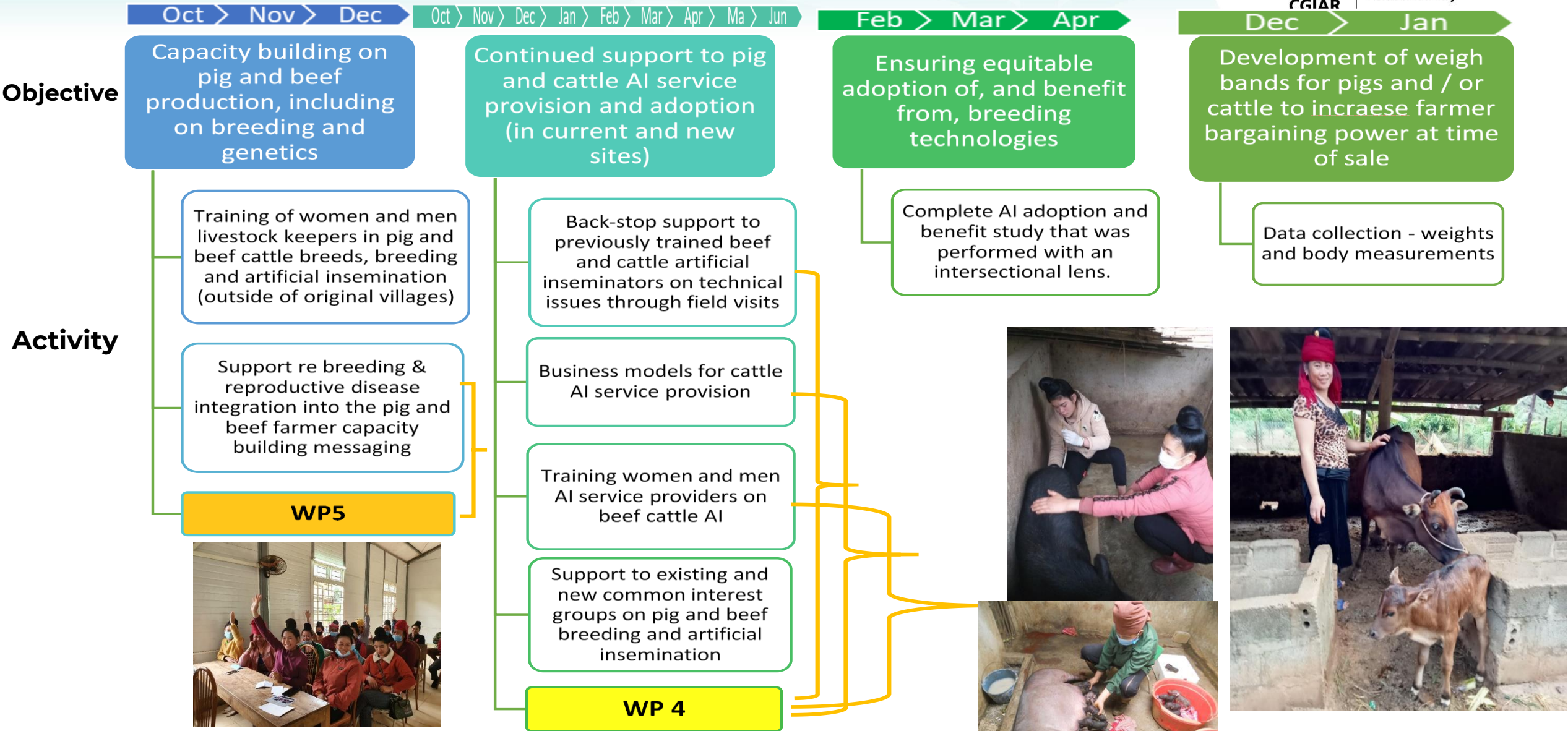
Genetics component

Background

Li-Chan project in the Mai Son district (Chieng Chung and Chieng Luong communes) indicated the need for overcome constraints in AI of pigs and cattle:

- Lack of pig AI service providers willing to offer their service in the remote highland communes;
- Lack of semen from local Ban boars (a farmer preferred breed) for use in AI in the highland communes;
- Lack of service providers for AI in cattle.
- The Li-Chan project trained veterinarians and vet workers in cattle AI; pig keepers in pig breed selection and AI; back-stop support to trained farmers and service providers,
- Positive feedback from pig and cattle keepers, AI service providers, and local authorities

Work package 1: Technologies and practices for sustainable livestock productivity





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Tropical Poultry Genetic Solution (TPGS)



TPGS
Tropical Poultry
Genetic Solutions

ILRI
INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE



The scope of the TPGS SAPLING proposed work: oriented around five areas of activities



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1 *Characterize chicken ecotypes and farmer preferences*

2 *Develop partnerships and breeding approach-PPP*

3 *Develop dissemination mechanisms-IP*

5 ***Establishing and running the Tropical Poultry Platform (TROP)***

4 *Improve the policy and regulatory environment and track program impacts*



TPGS
Tropical Poultry
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TPGS SAPLING: Major activities in Vietnam

Planned Activities	WP
Identify promising and endangered chicken ecotypes in Vietnam	1
Training of 1-2 poultry scientists at the reproductive technologies laboratory at ILRI	1
Develop, test, and deliver tailored SBCC packages to enhance poultry products consumption	2
Current smallholder chicken production systems, productivity, husbandry practices, characterized and farmer traits and breeds preferences identified	4
Assess national technical capacity gaps (gender focused) on poultry development (namely, genetics, feed, health, and extension) and develop roadmap for capacity strengthening	5
Develop women-focused business models for mass multiplication, brooding, vaccination, dissemination, and other input delivery systems along the value chain	4
Strengthen national Innovation Platform as nucleus for creation of supra-national poultry forums that will feed to the establishment and operationalization of the Tropical Poultry Platform (TROP) in Vietnam	5



Identify promising indigenous chicken breeds in Vietnam



Lạc Thủy chicken, originated from Hoa Binh province, in the Northeast
male: 447,80g - 561,48g, female: 392,42g - 472,55g/ 6 weeks old. 96 – 104 eggs/ year.



Mong chicken, originated from Ha Nam province, in the Red river delta,
male: 663,05g- 692,08g, female:
575,28g-598,05g/ 6 weeks old. 85,79 - 86,65 eggs/ year.



Lạc Sơn chicken, originated from Quang Binh province, – the central of Vietnam, male: 615,4-633,2g, female: 492,1-500,2g/ 8 weeks, 1.304,2-1.402,2g/ 20 weeks old. About 115 eggs/year

Identify 3 promising chicken ecotypes in 3 agro-ecological zones: Red River Delta, Northeast and Central Vietnam



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Work Package I: Technologies and practices

Feeds & Forages component

Work package 1: Feeds and Forages (F&F)

Objectives;

1. Based on assessments using the G-FEAST approach, a basket of F&F options will be identified, tested, documented and refined. Feed action plans to be co-developed with local communities.
2. Capacity building on F&F interventions: Farmers, extension workers will be trained, and recommendations and training materials will be provided to extension workers.

Anticipated feed options;

- Integration of forage legumes in tree plantations, rotation on staple crop fields, cover crops
- Inclusion of improved grasses e.g. in contour lines as cut-and-carry material and biomass maize
- Better utilization of crop residues, by-products and concentrates
- Feed classification, feeding regimes, feed conservation & appropriate solutions for winter storage



Activities and timeline

In new SAPLING sites (Co Noi & Hat Lot communes), Gendered Feed Assessment Tool (G-FEAST) will be used to assess local feed resources and challenges.

Selection of feed options will be based on G-FEAST assessments and co-developed with local communities.

Feed action plans will be developed and tested using action research approaches with farmers.

Farmers, extension workers will be trained, and recommendations and training materials will be provided to extension workers.

In Chieng Chung and Chieng Luong communes, we will build on previous Li-chan activities in addressing feed-related challenges, by providing technical backstopping and capacity building on forage management and utilization

2022

2023

2024



Interactions with other work packages



WP1. Technologies and practices for sustainable livestock productivity



Integrated technology package will be co-developed with genetics and animal health components through integrated communication materials (e.g. training manuals)

WP3. Gender equity and inclusion



Gender considerations will be taken into account from design to implementation phases

WP4. Competitive and inclusive livestock value chains



Integrated technology packages and innovations (including F&F) will be bundled for delivery to optimize opportunities for impact

WP5: Evidence, decisions and scaling



Integrated technology packages/innovations (including F&F) will be shared with WP5 for trade-off analysis, environmental assessment and scaling assessment



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Work Package I: Technologies and practices

Animal Health & Food Safety component

Animal Health



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Introduction

Background:

- Animal disease (ASF, FMD, HPAI, ND, LSD...) cause economic losses to smallholders
- Lack of knowledge on Biosecurity and Animal Health prevention and control
- Lack of veterinary service

Objective:

- Improving animal health and productivity through of livestock keepers through training course and demonstration farm
- Capacity building of Animal Health Workers on diagnostic, treatment and disease control



1. Field survey

- To survey (including rapid assessment) livestock system in Sapling site
- Visit and interview 2 - 3 Livestock smallholders in each targeted village



2. Farmer training

- Target 500 man and woman of 2 province, repeated 3 times
- 3 Modules: Biosecurity, vaccine and antibiotic, farm management



3. Animal Health Professional Training (AHP)

- Target 50 man and woman AHP of both provinces, repeat 2 times
- 7 Modules: Biosecurity, Animal Diseases, Vaccine and drug...



4. Establishing demonstration farm

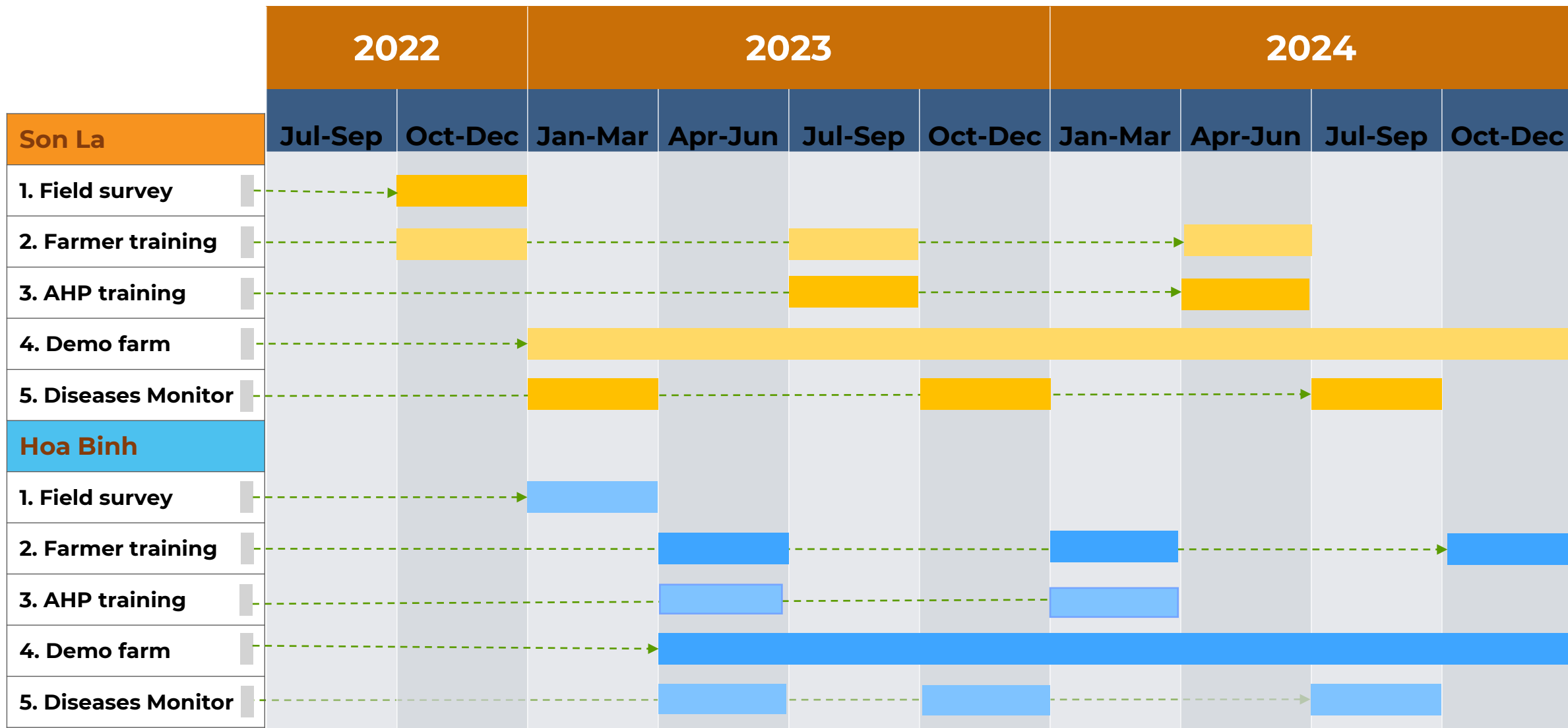
- Integrate with WP1 (Genetic, Feed & Forage) & WP4 (Scaling)
- Consultant, demonstration and providing livestock subsidies (vaccine, drug)...



5. Serological monitoring

- Sampling animals (cattle, pig, chicken) of all demonstration farms for presence and evaluation (before/after) of animal diseases
- Diagnosis at Virology department laboratory, NIVR

Tentative timeline and activities



Expected outcomes and outputs

Short-medium outcome:

- Changing farmers, AHPs knowledge, attitude and practices
- Improved disease prevention (e.g. through vaccination, biosecurity) and using antibiotic more safety and efficient

Medium-long outcome:

- Reduce morbidity and mortality
- Increase livestock productivity
- Capacity building for Training of Trainer





Food Safety

(cross cutting across all WPs)



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Introduction

Background:

- Food safety is a major concern of consumers
- Better market access must be aligned with food safety
- No food security without food safety

Objective:

- Improving capacity on risk assessment (local authorities) and risk communication (various actors/community)
- Rapid assessment of food safety performance in selected key value chains
- Apply and test simple, and cheap interventions for at least one animal sourced food commodity and 1-2- nodes (e.g. slaughter and retail)

Activities – Food safety

Capacity building: (2022-2023)

- Risk assessment/risk communication training for local authorities, 20 pax for 1 day
- Risk communication for consumers, 2 -3 session each ½ day (in intervened communities)
- Risk communication loudspeaker campaign (20 broadcasts) (in intervened communities)

Food safety assessments and interventions: (2023)

- Scoping and rapid assessment to agree on commodity and VC node (markets)
- Pilot intervention and testing them (Base line/ endline) in selected commodity and VC node, e.g., in 2-3 markets

Outputs:

- Manuals, poster, flyers, course and broadcast outline and materials

Outcomes:

- Improved knowledge (short term) and practice (medium to long term) on RA and RC
- Improved knowledge (short term) on hygienic practice of targeted VC actors
- Improved food safety outcomes in VC actors (medium to long term)