Li-chăn

Vietnam project results and achievements

Sabine Douxchamps, Karen Marshall, Le Thi Thanh Huyen, Hu Suk Lee, Mary Otieno, Emmanuel Mwema, Nguyen Thinh, Mai Thanh Tu and Jim Hammond

Li-chăn project stakeholder meeting, 11-12 October 2021

Photo credits: Mai Thanh Tu (ILRI/CIAT)

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More meat milk and eggs by and for the poor

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Li-chăn

Overview

Sabine Douxchamps

Li-chăn stakeholder meeting, 11-12 October 2021

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Project characteristics

Objective: To stimulate system transformation (livelihoods, environment, equity, and market access) to empower highland farming communities through bundled livestock-based interventions in North-West Vietnam.

→ system and landscape approach

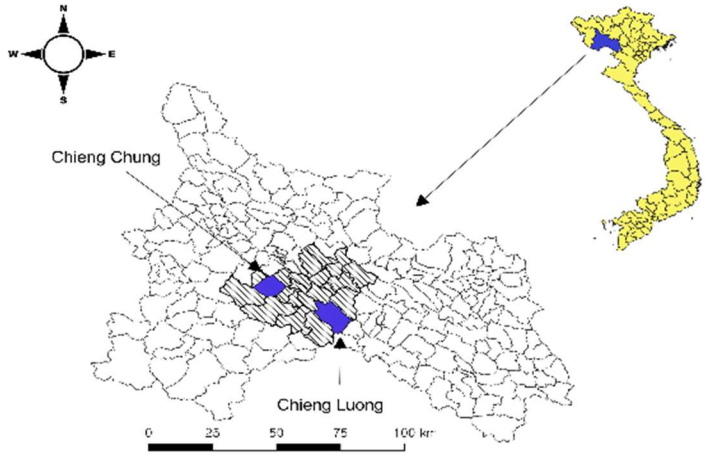
→ multiple species

→ integrated interventions

→ community-based

→ reaching ethnic minorities

→ embedded in governmental plans



Alliance

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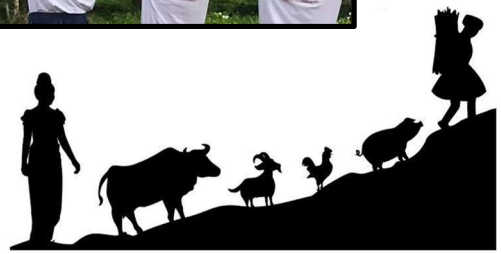
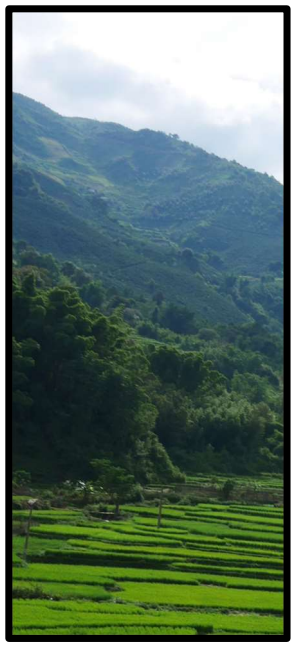
DEPARTMENT OF AGRICULTURE OF SON LA

PEOPLE'S COMMITTEE OF MAI SON DISTRICT



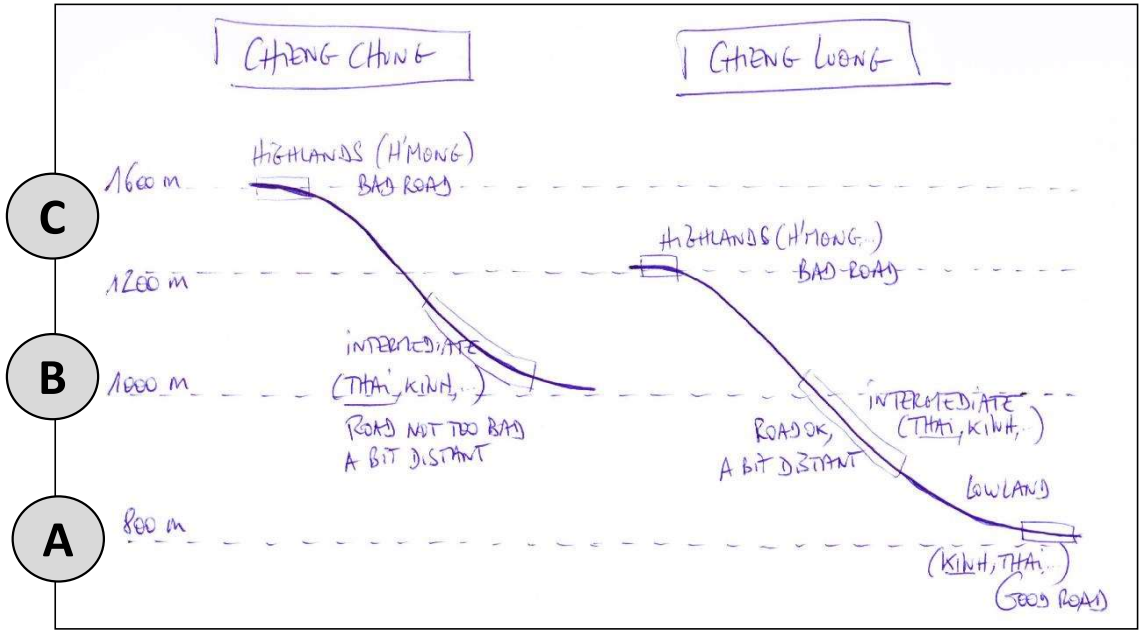
Farming system types



Remote extensive systems in the high altitudes, with low access to market, fragile environment, mainly H'Mong ethnic minorities

Mixed crop-livestock system in the mid-altitudes, mainly Thai ethnic minorities

Intensive systems in the lowlands with good access to markets and better capacity for innovation



Five complementary thematics

- Assessments
- Trainings
- Testing
- Awareness raising

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Genetics flagship

Results and achievements

Karen Marshall and Le Thi Thanh Huyen

Li-chăn stakeholder meeting, 11-12 October 2021

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Key achievements

- **Diversity of stakeholders participated in a series of training courses on pig and cattle breeding operations**

		Breed selection and breeding (n=125)	Semen collection from Ban boar (n=18)	Pig Ai (n=36)	Cattle AI (n=19)
Participants		125	18	36	19
Ethnicity (%)	Hmong	44	17	14	16
	Thai	56	83	86	84
Gender (%)	Female	50	33	50	37
	Male	50	67	50	63
Age (%)	<20	4	0	8	0
	20-30	41	22	36	21
	31-40	31	66	42	53
	>40	24	22	14	26

- **Impact of supported workshop after training**

  With the concern of Local authorities and DARD for action plans to continue supporting farmers in the future

- **Initial impact of on- farm practices to the concern of farmers and adoption of AI on cattle and Ban pig after training**

  More farmers concern on animal breeding and are able to perform AI for Ban pigs

  Some vet workers concerning more on Cattle AI service

Genetics Flagship

Learnings

- **Out come of on-farm implementation**

  Farmers learn from farmers, both from successful and failed adoption/practices

  Who start, how, and reasons?

- **Local vet workers play an important role in supporting local farmers**

  A role as a potential bridge in transferring and out-scaling the animal breeding innovations in the localities

- **Women are active in pig breeding operation and need to be promoted**

Implications/ significance

- **Theory combining with field practices attract ethnic farmers/ participants in attending and concerning the technical training courses**
- **The successful cases of pilots after training promote local farmers and vet workers in adoption of innovations**
- **For local farmers:**

  More learning and practicing

  More: concerning, understanding, appreciating and adopting the introduced innovations

Photo by: Ha Van Chung

Photo by: Luong Van Yeu

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Animal Health

Results and achievements

Lee Hu Suk

Li-chăn stakeholder meeting, 11-12 October 2021

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Key achievements

- **Training for farmers**
  - Date: 3-8 Oct 2020 and 14-18 Jan 2021
  - No. participants: 110 (1st) and 106 (2nd)
  - Content: biosecurity and farm management
- **Training for Animal health professionals (AHPs)**
  - Date: 2-6 Dec 2020 and 1-12 July
  - No. participants: 20 (1st) and 7 (2nd)
  - Content: diseases, biosecurity, use of vaccine/antibiotics, outbreak investigation and control measures etc.
- **Demonstration farms – ongoing**
  - Date: May to Nov 2021
  - No. participants: 15 HHs from 6 targeted villages
  - Interventions: consultation on farmhouse renovation, biosecurity, free vaccine (e.g. multi-valent, FMD and ND) Livestock diary (every 2 weeks F/W by phone) since July

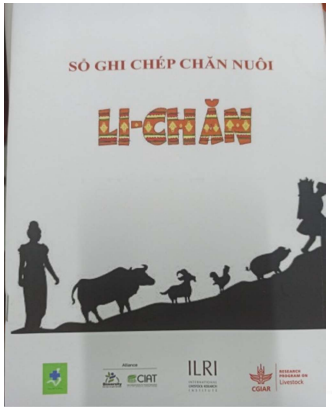
Animal Health

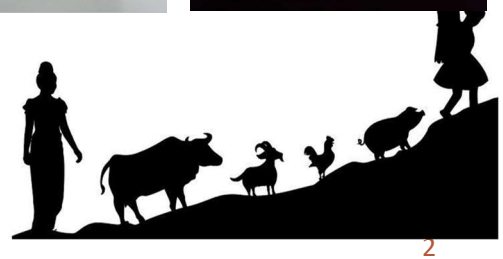
Learnings

- **Before and after KAP survey**
  - farmers: 7.33 -> 8.16 (1st), 8.53 -> 9.47 (2nd)
    both trainings (61 people): 7.52 -> 9.85 (max 15)
  - AHPs: 14.1->20.3 (max 30)

- **Demonstration farms**
  - Farm renovation and behaviour changes
  - Indicators: productivity, mortality/morbidity and vaccination rate and use of antibiotics via *livestock diary*

Building a new pen for pigs





Future action

- **Partnership and collaboration with local authorities**
  - Sub-DAH and Agriculture service centre in Maison
  - Disease surveillance/ monitoring, control and prevention

- **Community engagement**
  - Demonstration farms
    - Scale up: Learn by watching and experience
    - More integrated interventions
  - More practical training for village AHPs

- **Generating evidence and tools to support decision-making**
  - To conducting epidemiological investigation
  - To develop research tools (e.g. risk map and disease model)
  - To suggest cost-effective control & prevention strategies

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Feeds & Forages

Results and achievements

Mary Atieno and team

Li-chăn stakeholder meeting, 11-12 October 2021

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Photo credits: Mai Thanh Tu (ILRI/CIAT)

Key achievements

1. Testing improved forages

- ❑ 155 households tried different forage varieties (4 grasses, 3 legumes)
- ❑ Increased average area with forages per household: Type A villages – from 0.01 ha to 0.06 ha, Type B – from 0.01 to 0.04 ha, Type C – from 0.02 ha to 0.06 ha.

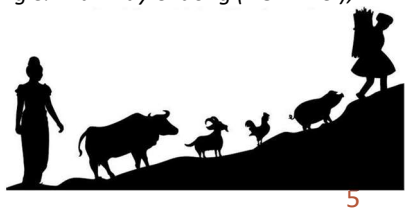
2. Trainings on feed techniques

- ❑ Farmer trainings with ~180 households in 6 villages
- ❑ Feed classification, processing, preservation and feeding regimes for cattle and Ban pigs
- ❑ Cattle/buffalo - silage, urea-treated rice straw; feed mix; Ban pigs – feed mix, feed fermentation using probiotics

3. Local stakeholder engagement

- ❑ Engagement with local stakeholders ensured successful implementation of flagship activities → trainings support, distributing materials to farmers, field trial monitoring

Photo credits: Bui Van Tung & Phan Huy Chuong (NOMAFSI); Chi Nguyen (ILRI)



Learnings

1. Highest preference for 3 grass varieties (Green Napier, Mombasa Guinea and Ubon paspalum) due to high germination rate, biomass, palatability. Moderate preference for forage legumes (Ubon stylo, rice bean, Arachis pintoi) and Mulato II. Farmers have expressed willingness to expand land area to grow more improved forages.

2. Covid-19 restrictions limited follow-ups to guide farmers on forage management and utilization. However, forage factsheets were developed and adapted to address issues raised by farmers such as appropriate cutting time, feed mix and use.

3. Maintaining a gender balance during flagship activities saw more female farmers actively participating in practical trainings

Photo credits: Bui Van Tung & Phan Huy Chuong (NOMAFSI)

Implications or significance

1. Adoption of high yielding, high quality forages and feed techniques can improve livestock production for smallholder livestock farmers in NW Highlands, who mainly rely on low quality forages and crop residues.

2. Preliminary results reported high biomass yields and increased feed availability for livestock. However, still early in the project to evaluate impact of interventions on livestock productivity, savings on labour and time and changes to household income.

3. Winter feed shortage is the main feed-related challenge in this area. Monitoring the on-going forage trials and adoption of feed techniques in the upcoming winter season will inform changes to the feed basket.

4. Capacity development on forage technologies and strengthening the role of stakeholders in seed systems can ensure seed access and availability, knowledge exchange and act as a driver for scaling.

Photo credits: Bui Van Tung & Phan Huy Chuong (NOMAFSI)

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Livestock and environment

Results and achievements

Emmanuel Mwema and team

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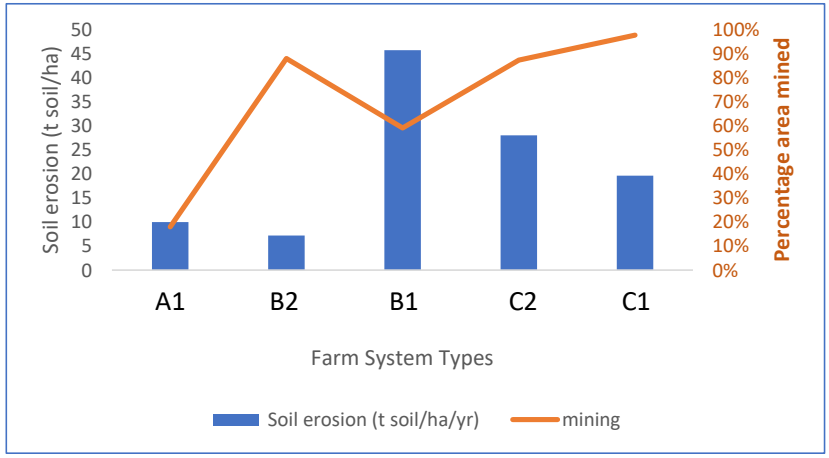
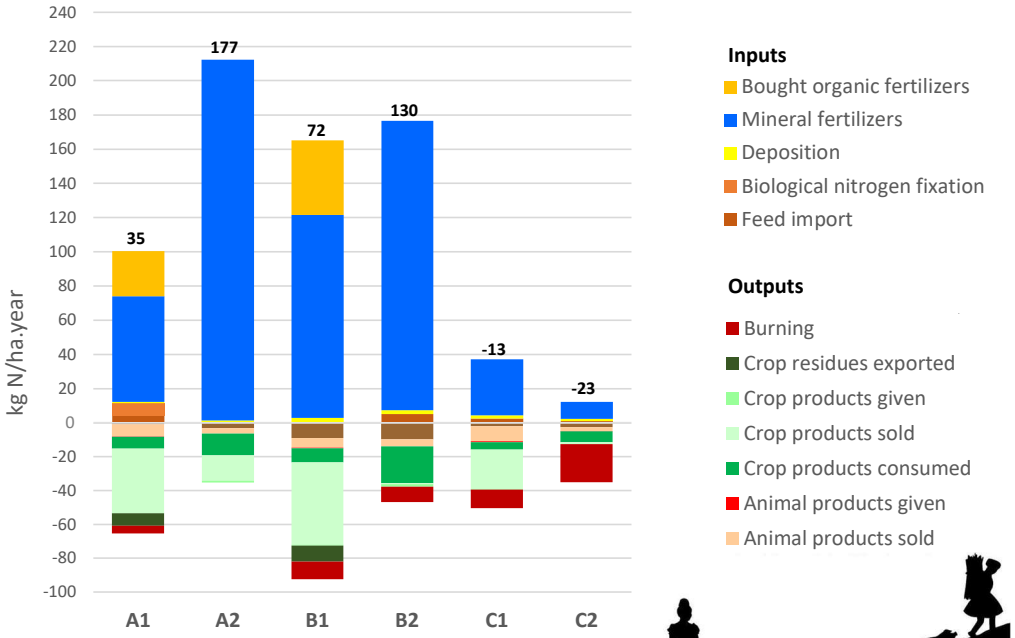
Photo credits: Mai Thanh Tu (ILRI/CIAT)

Learnings

- **CLEANED**
  - High nitrogen (N) use in all systems, this could be based on low fertilizer inputs coupled with high crop cultivation leading to high N mining in all the production systems.
  - Most soil is lost through erosion in Oi due to topography and continuous cultivation practices.

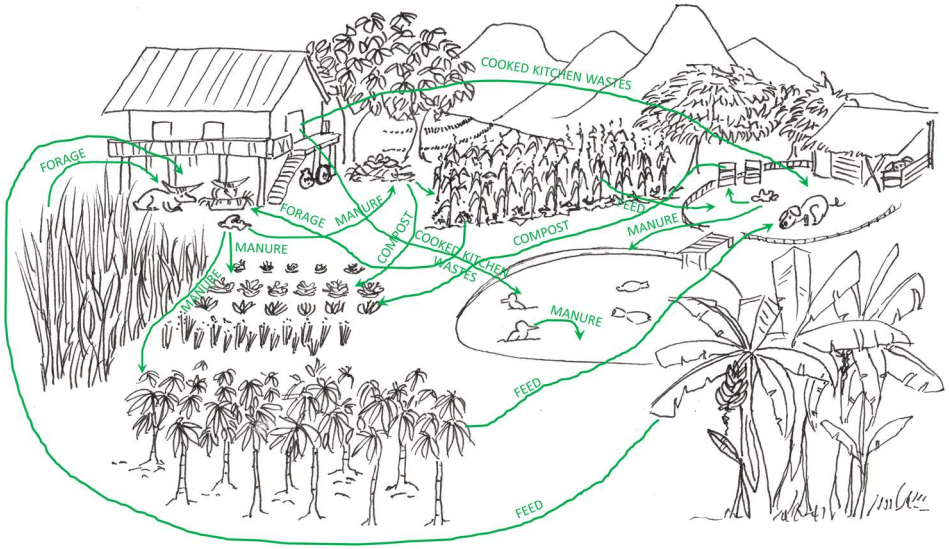
- **Nitrogen balances**
  - N balance negative in the remote farms, due to crop residues burning and not enough inputs.
  - Mineral fertilizers maintain N balance positive in other locations.
  - The contribution of organic fertilizers is mostly low and biomass recycling was minor in most cases.



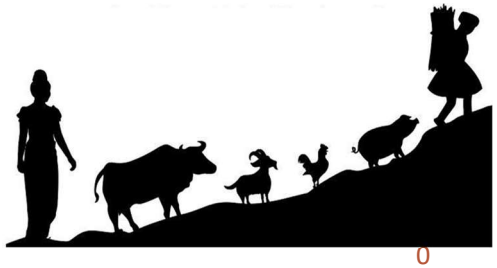


Implications or significance

- **CLEANED**
  - Proper manure management, and production and use of improved forages is recommended across the systems
  - Production of improved forages can minimize water lost through evapotranspiration
  - Addition of cover crops and contour farming is highly recommended in highland areas to improve soil water retention and minimize erosion activities



- **Nitrogen balances**
  - Recycling of organic matter should be encouraged to improve soil fertility
  - Residues burning should be avoided



Key achievements

- **CLEANED**
  Environmental footprints of different farming systems quantified (with the CLEANED model)
- **Nutrient balances**
  Nitrogen flows and recycling quantified
- **Livestock and Environment trainings and trials**
  - Erosion control
  - Soil fertility and biomass recycling
  - Animal manure and crop residues composting

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Livestock and livelihoods

Results and achievements

Nguyen Thinh

Li-chăn stakeholder meeting, 11-12 October 2021

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Photos credits: Mai Thanh Tu (ILRI/CIAT)

Key achievements

Market study

To provide insights into VCs of pigs and cattle

To suggest interventions for VC improvements

Key findings

- Small-scale production
- Constraints: breeding practices, financial resources, disease control, marketing
- Loose linkage among actors
- Low bargaining power of producers
- Collective actions to allow smallholders to access lucrative markets and to improve their bargaining power

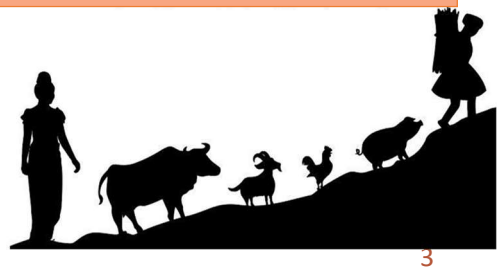
https://cgspace.cgiar.org/handle/10568/112916

Common interest groups (CIGs)

To promote the value of group working

To better access to livestock related policies and supports

- Organize a series of CIG trainings
- Support the establishment and operation of 5 CIGs in 6 targeted villages with almost 60 household beneficiaries



Learnings

1. Appropriate approach for involving active actors as change agents in the early stage of CIGs
2. Integration with other flagships to lay a good foundatio for the establishment of CIGs

Implications or significance

1. Capacity building for CIG members are in need for self-managing and developing CIGs
2. Development of linkages among newly established CIGs for knowledge sharing and potential common activities
3. Involvement of local authorities is crucial for the sustainability of CIGs

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Photovoice

Mai Thanh Tu

Li-chăn stakeholder meeting, 11-12 October 2021

Photo credits: Phan Huy Chuong (Nomafsi)

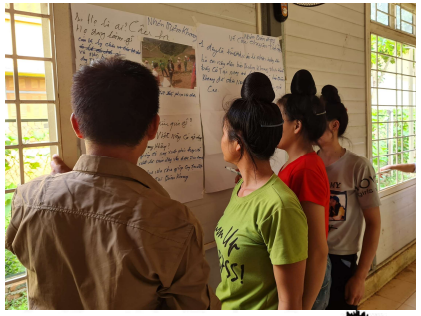
What is photovoice?

- Photovoice is a participatory method which uses photography to enhance dialogues and discussion
- 20 cameras were given to 18 farmers and two commune vets June – Aug 2021
- In Li-chan, photovoice is used as a participatory M&E method to collect “stories of changes”
- A five-step process:

✓ Step 1: Selecting community members
✓ Step 2: Training on using camera and conducting interviews, story-telling
✓ Step 3: Coaching and selecting photos & stories
✓ Step 4: Validating with communities
✓ Step 5: Presenting results







DEPARTMENT OF AGRICULTURE OF SON LA

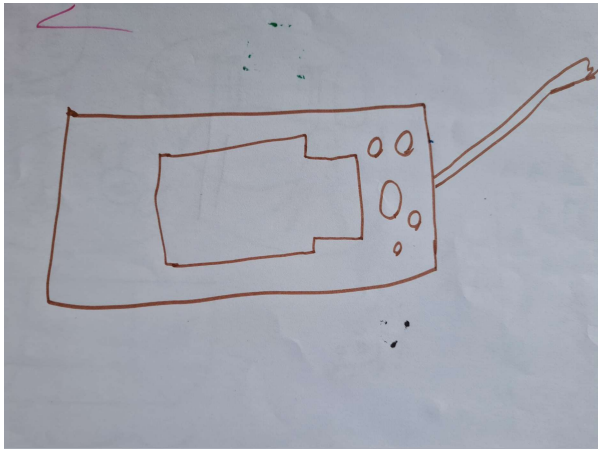
PEOPLE’S COMMITTEE OF MAI SON DISTRICT

Why photovoice?

Cameras can be used to "make visible our everyday life"

- The photovoice is a lively way to engage community
- Photos can help to overcome language barriers
- Photos can provide lively and stimulating evidences
- Photos can be used to stimulate communities' discussion
- The 'insiders' understand their issues the best: farmers actively participate in data collection and analyses
- By participating in the evaluation process, farmers will be more persuaded to apply what works

A picture is worth a thousand words



"I draw this camera to say that I am happy to be given a camera to take photo of interesting things and learn new things through talking with the person in the photo about what they are doing" (Quang Thi Ly, Female, Thai ethnicity)

Results

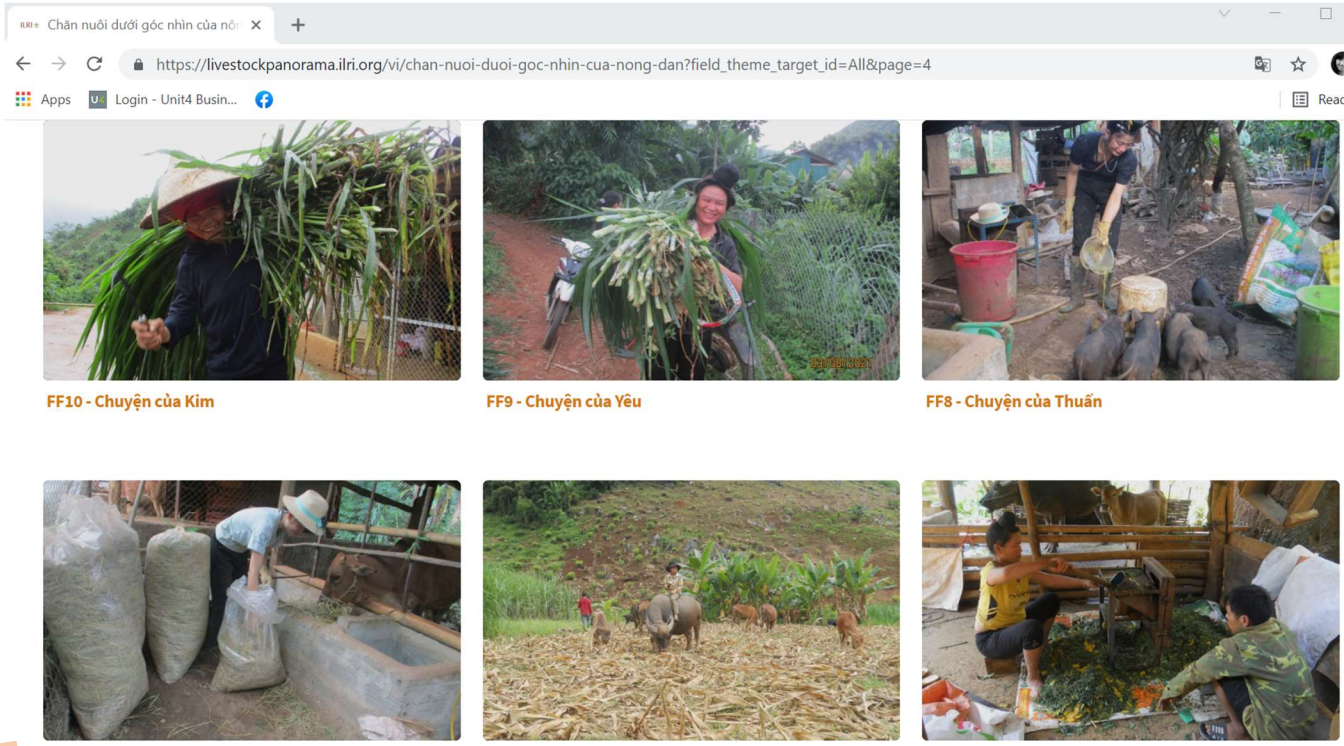
- After 2 months:

✓ 5,000 photos and videos taken

✓ 170 stories collected

✓ 69 photos & stories selected for virtual exhibition *"Livestock Development from farmers' perspectives"*

✓ 30 photos & stories selected for physical exhibition and catalogue



Photovoice gives me opportunity to take photos and tell stories about what is happening in my community

I am happy that I can introduce about our livelihoods and culture to other localities

This is the first time I hold a camera. I am eager.

I am glad that the project care about our voices

It was fun when villagers saw me, they called me "Hi, photographer"

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COVID-19 Impacts Survey

Results and achievements

J Hammond

Li-chăn stakeholder meeting, 11-12 October 2021

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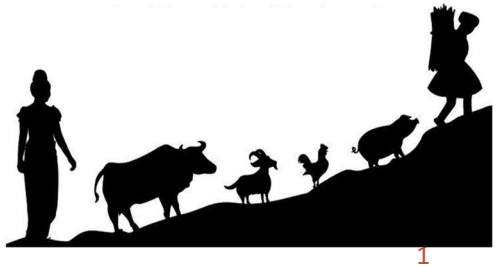
Photos credits: Mai Thanh Tu (ILRI/CIAT)

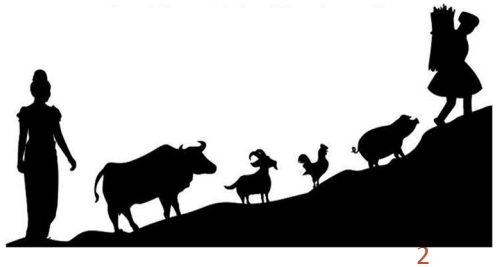
Key achievements

- In September 2020, 304 smallholder farmers were interviewed in the intervention villages of Mai Son
- Infographic document produced in Vietnamese and English
- Manuscript in review combining this and data from 6 other countries



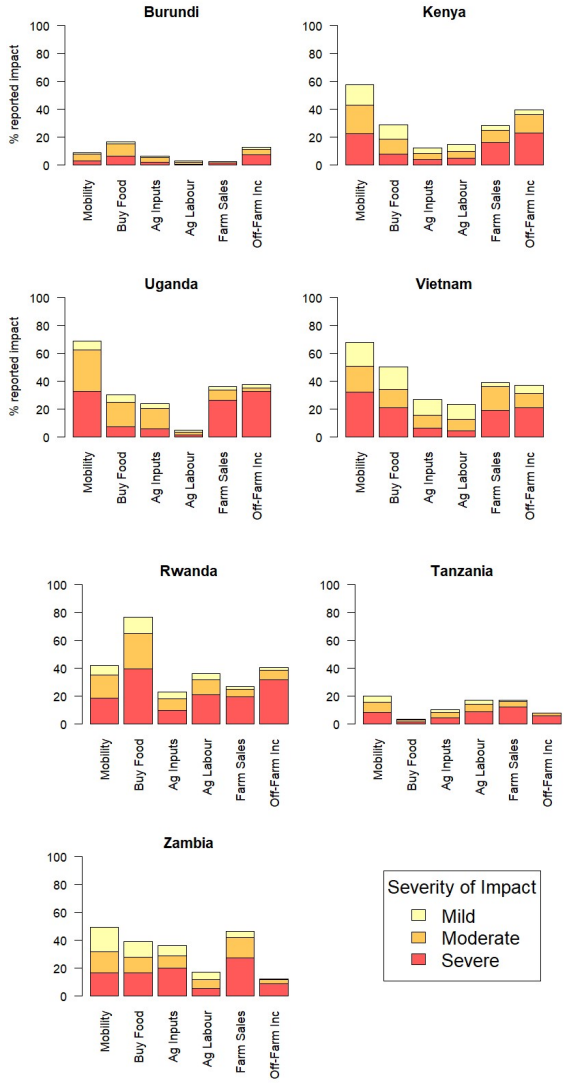
Learnings

- **The economic and food security impacts were very severe: two thirds of households reported income losses and two thirds reported reduced food consumption.**
- **Sale of livestock was a major coping strategy; but often sale prices were low. Off farm income also disrupted.**
- **There was evidence of ongoing disruption, i.e. households did not quickly recover after restrictions were relaxed. Further monitoring recommended.**



Implications or significance

- **Although the COVID-19 containment measures were successful in reducing spread of the disease, here we quantified the unintended consequences. They are serious and ought to be addressed.**
- **Similar patterns were seen in surveys across East and Southern Africa.**
- **Based on a synthesis analysis we recommend:**
  - i) tiered mobility restrictions with travel allowed for economic reasons;
  - ii) short-term price guarantee schemes to stabilise the food system;
  - iii) direct aid;
  - iv) the timely re-installation of distribution channels for agricultural inputs.



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livestock.cgiar.org

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