



# Policies, value chains and stakeholder engagement

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**Australian Government**

**Australian Centre for  
International Agricultural Research**



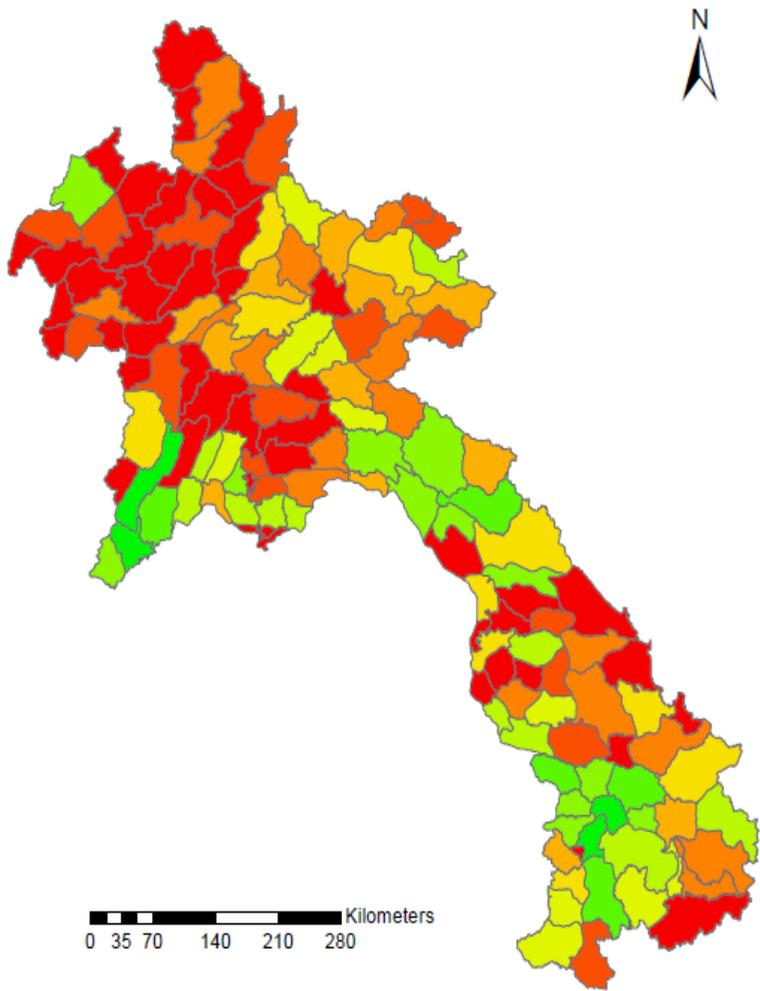
International Center for Tropical Agriculture  
Since 1967 *Science to cultivate change*



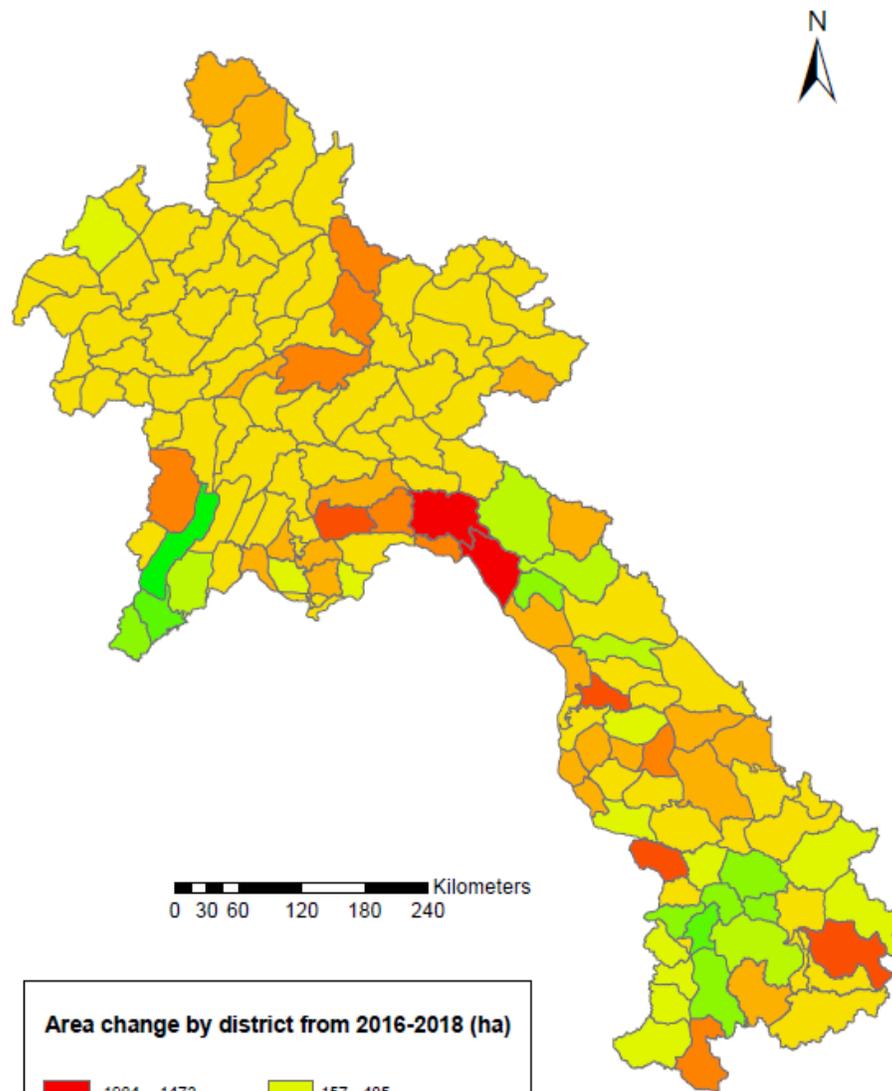
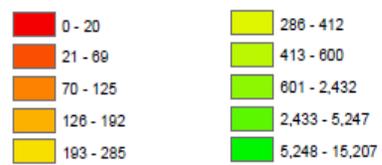
**THE UNIVERSITY  
OF QUEENSLAND**  
AUSTRALIA

# Cassava Situation update in Lao PDR

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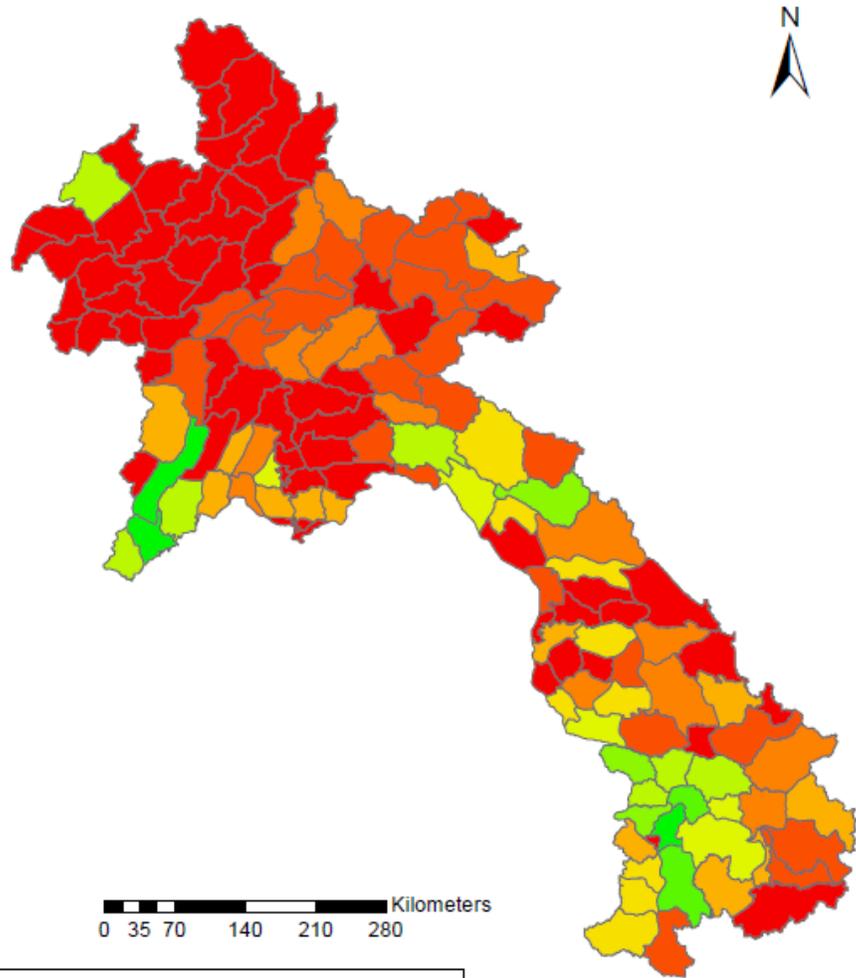
**Harvested cassava area by district, 2018 (ha)**



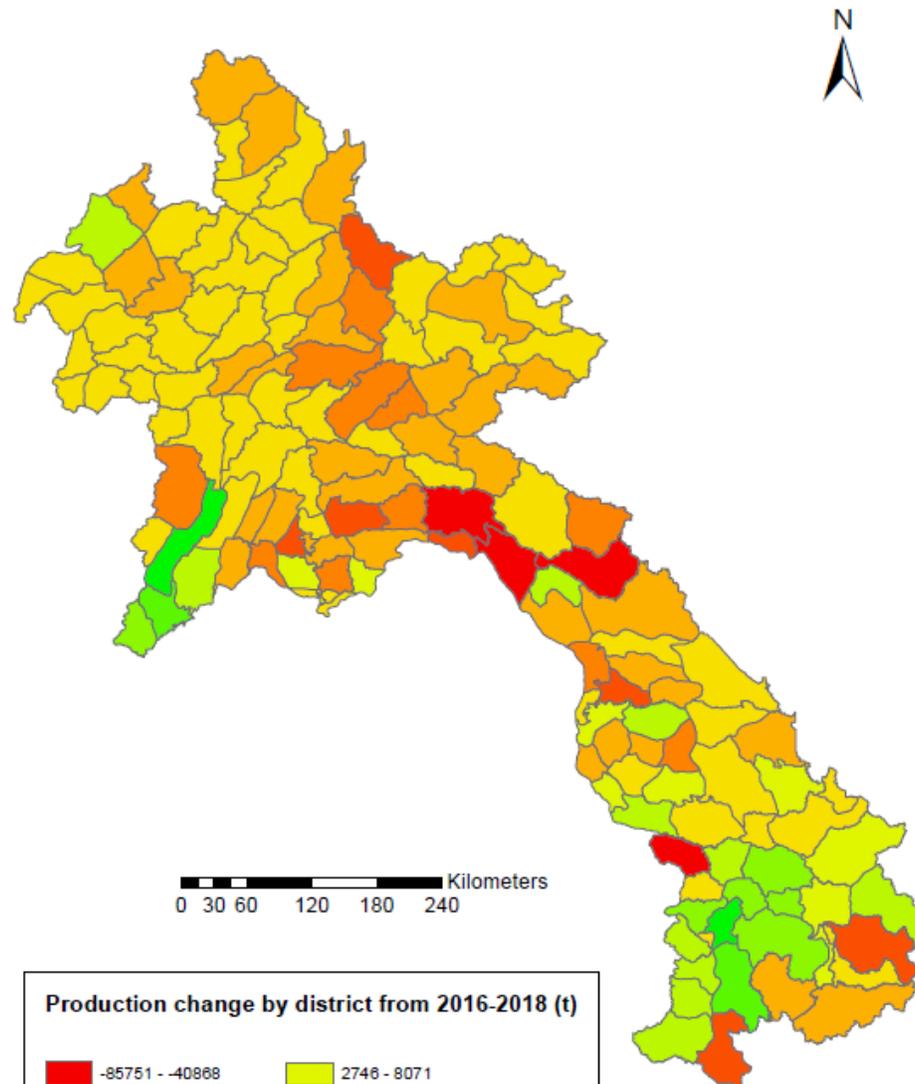
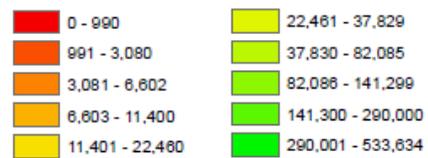
**Area change by district from 2016-2018 (ha)**



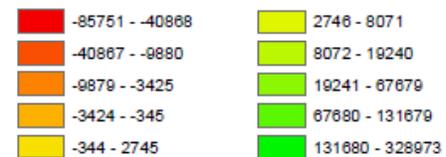
- I. 101,100ha
- II. 3,324,000 tons



**Cassava production by district, 2018 (t)**

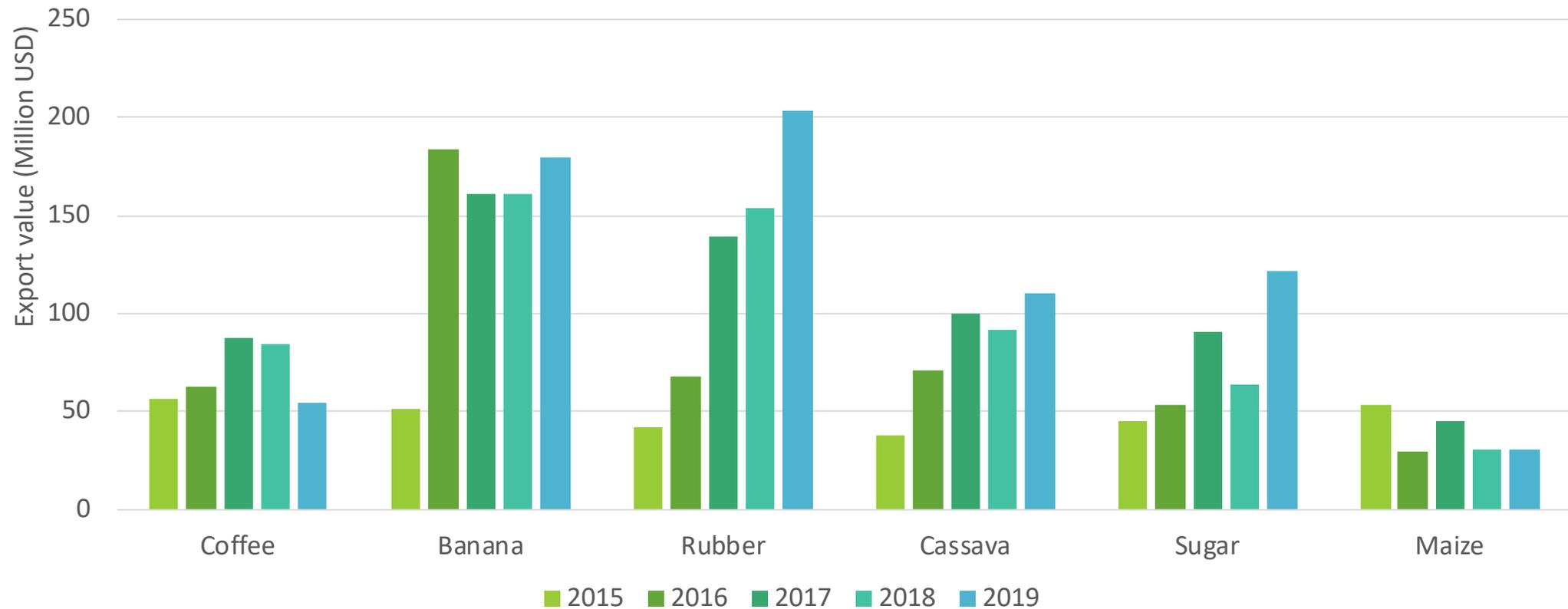


**Production change by district from 2016-2018 (t)**

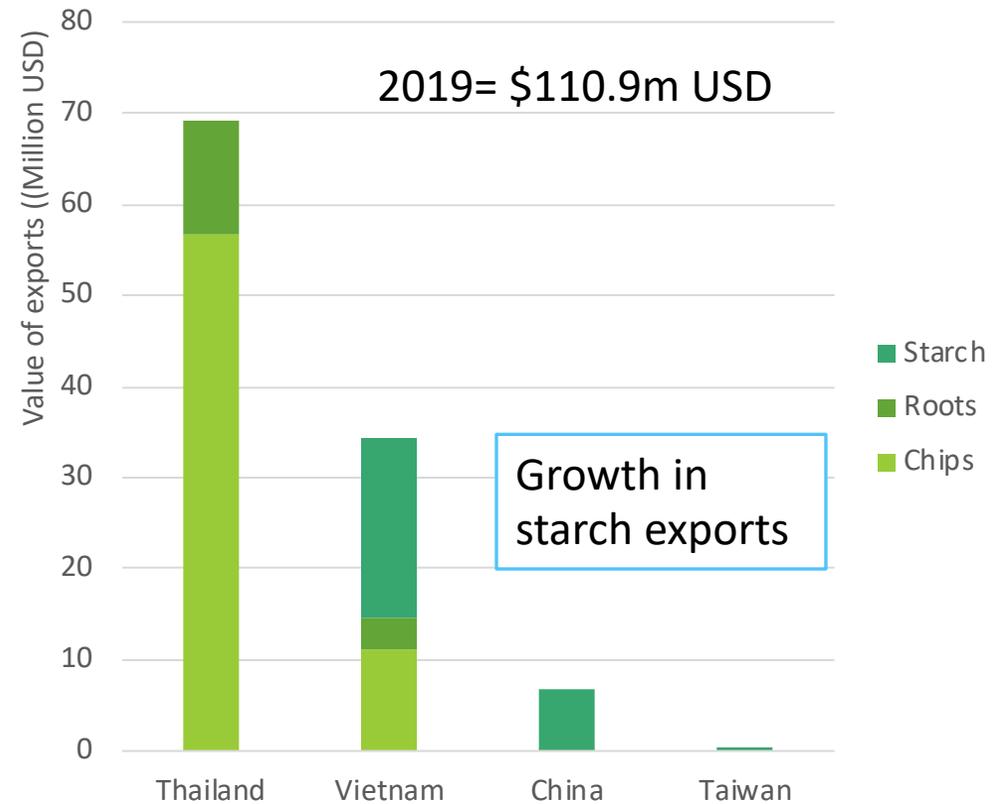
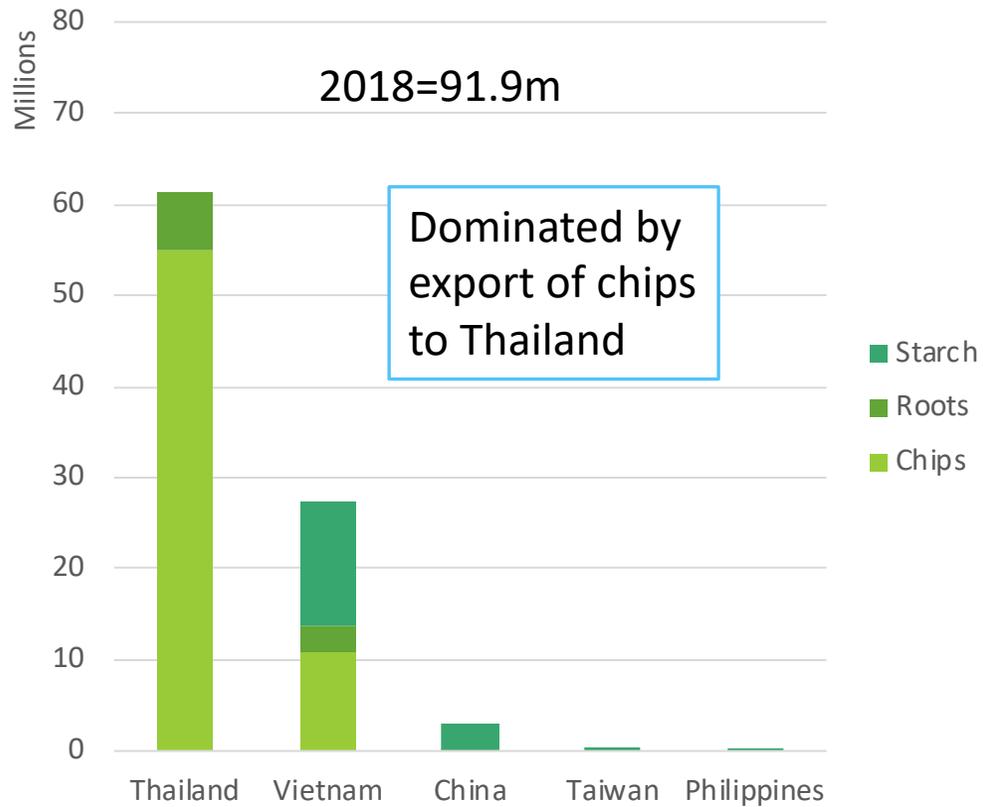


Largest  
increase in the  
south

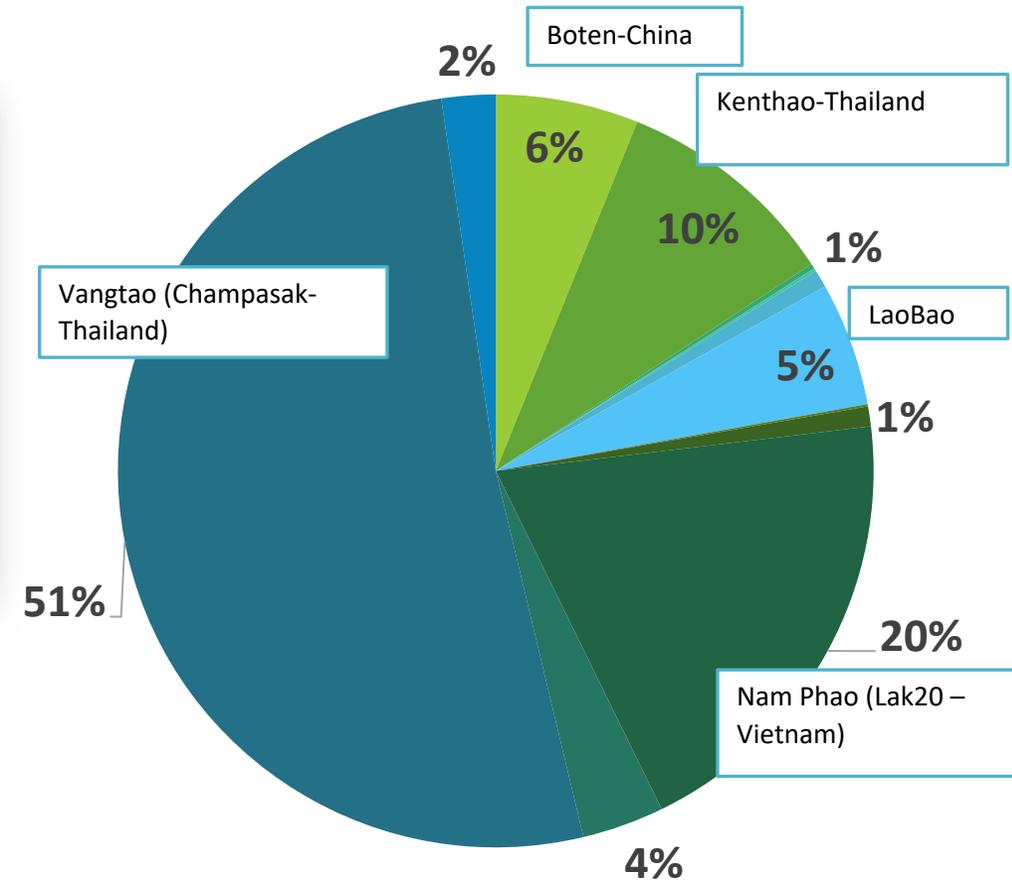
# Value of exports exceeded \$US100m in 2019



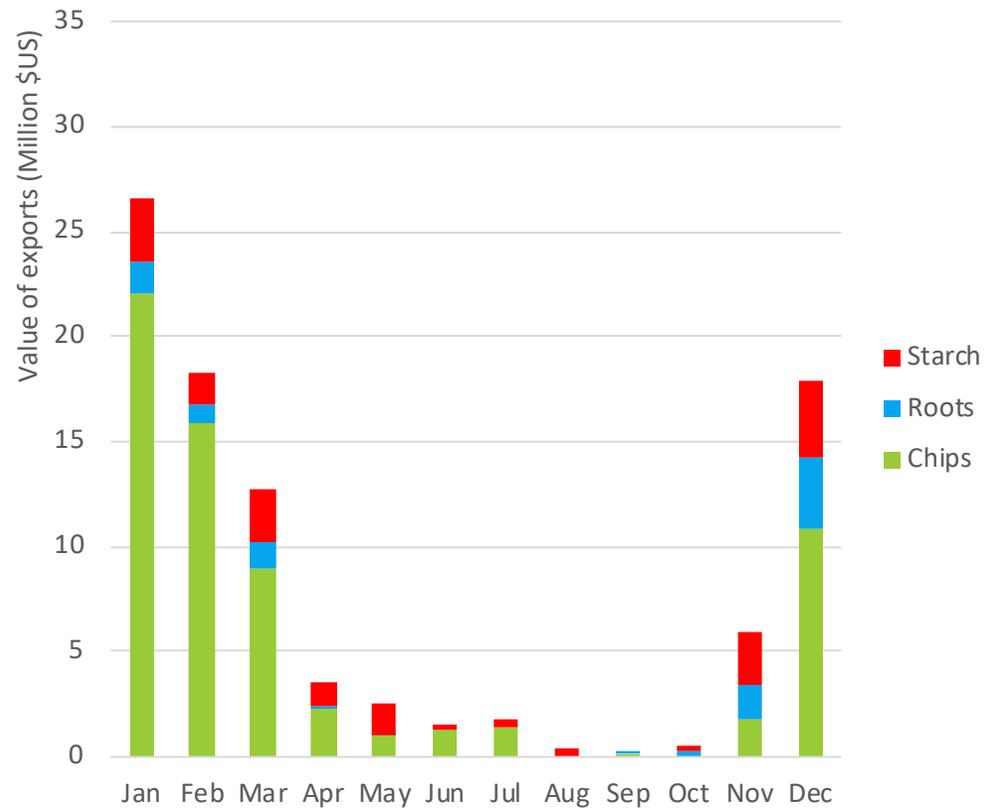
# Export by destination and type



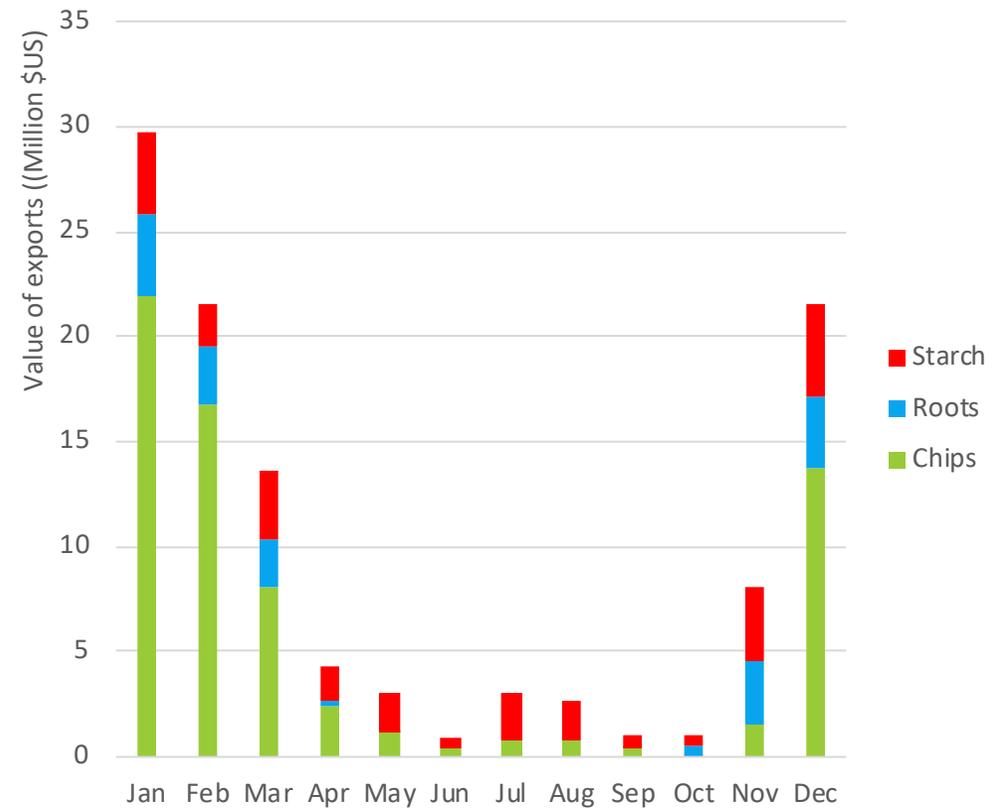
# Export from Southern Laos into Ubon Ratchathani dominates registered trade



# Seasonality of exports (Nov - March)

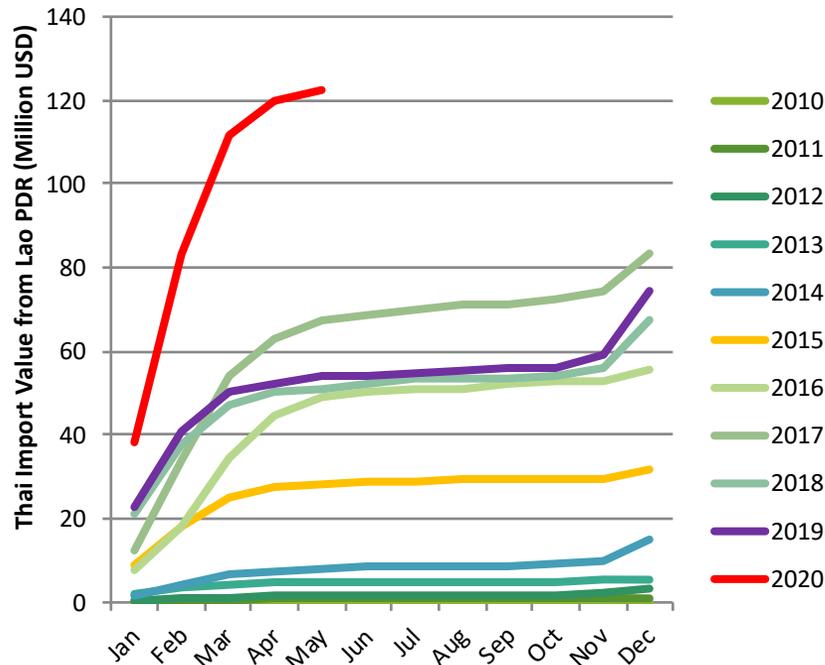


2018

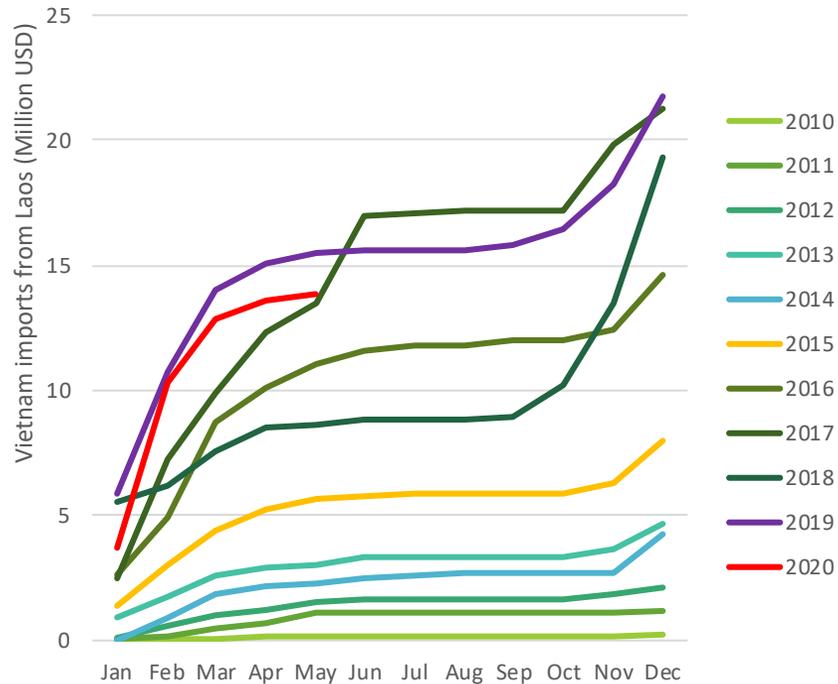


2019

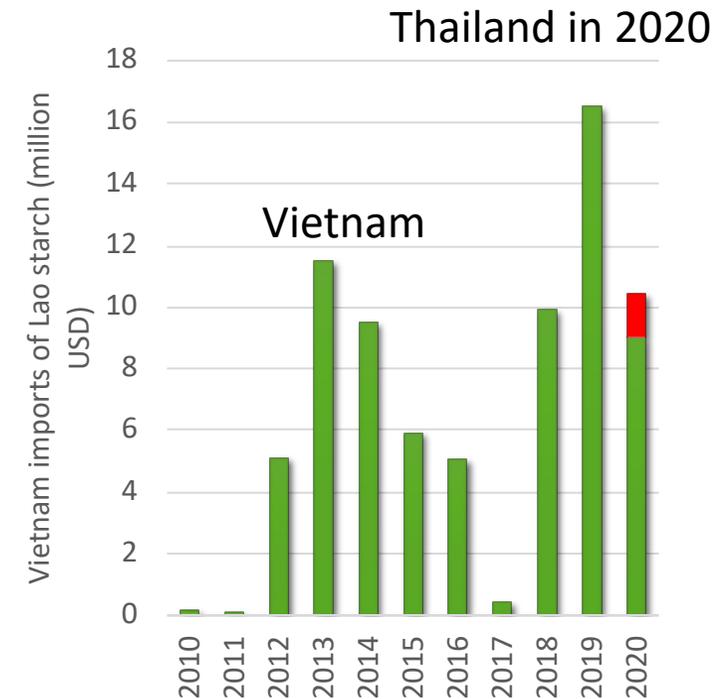
# Large expansion in Trade ~\$150m Jan - May 2020



May 2020 = \$122.5m USD



\$13.9m USD



\$10.4m USD

# New factories being established

## Some old factories close

1. PM decree on export of raw products – Root export decline
2. Lao-Indochina Company – open – closed – open – closed
3. New factories opening in several Provinces
  1. Joint ventures with Vietnamese and Thai Companies

Thaiwah Starch Company  
joining Field Day in Xayabouli



# What has been done to engage with stakeholders?

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1. Harvest field days with farmers, government, and value chain partners.
2. Follow up focus groups with farmers to report agronomic and economic results to farmers
3. District level stakeholder meetings with village leaders, district and province agricultural staff, private sector, finance sector
4. Partnership with fertiliser import company
5. National level dialogue
6. Link to development projects ongoing
7. Key informant interviews with stakeholders on outcomes and future
8. Farmer survey on changes in KASA and Practices

# Timeline of activities

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## 2016

Value chain (May)  
Focus group (May)  
DAFO training on cassava production

## 2017

Household survey (June-July)  
Trials established in consultation with DAFO and stakeholders

## 2018

- Harvest field day (March)
- District Stakeholder meetings (Aug-Nov)
- Training of DAFO and farmers
- Farmer focus groups (scenario analysis)

## 2019

- Harvest field days
- National Stakeholder meeting (March)
- Farmer and DAFO training (August)

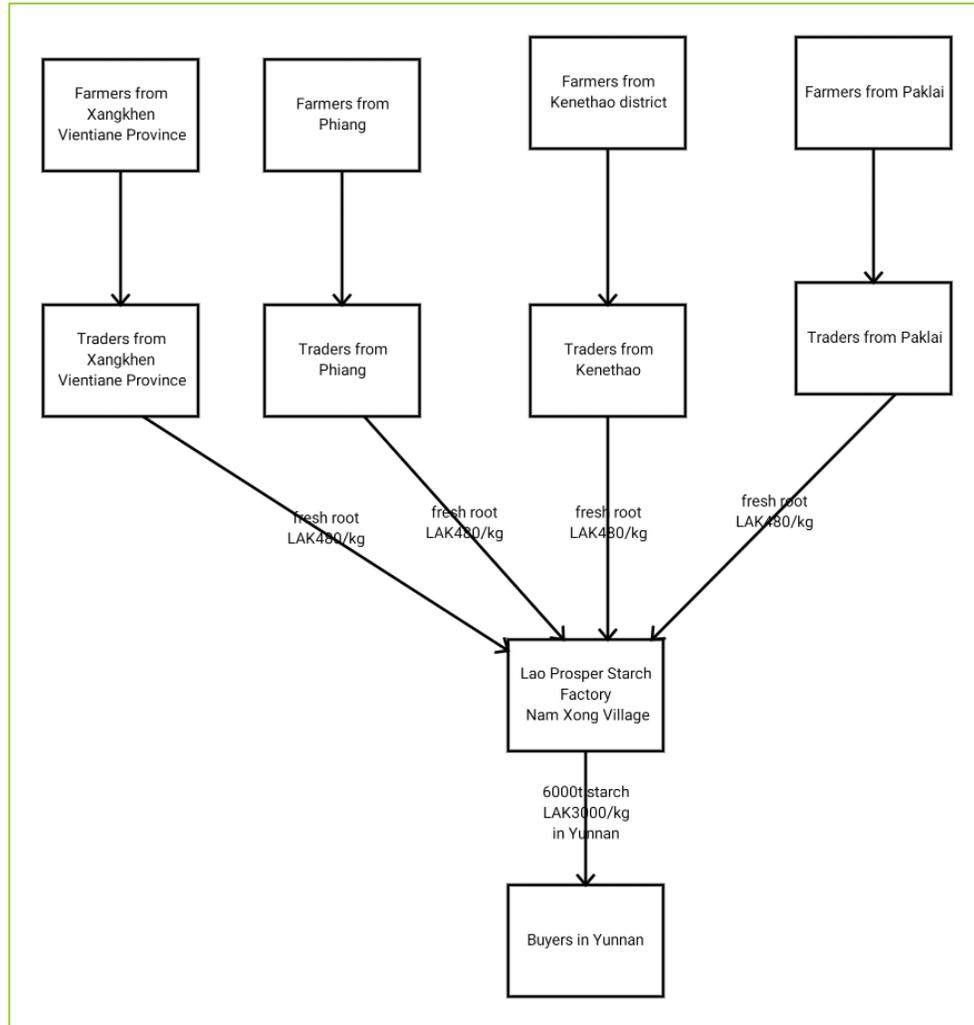
## 2020

- Harvest field days (Dec-Jan)
- Adoption survey (June)
- Stakeholder consultation on maintaining activities

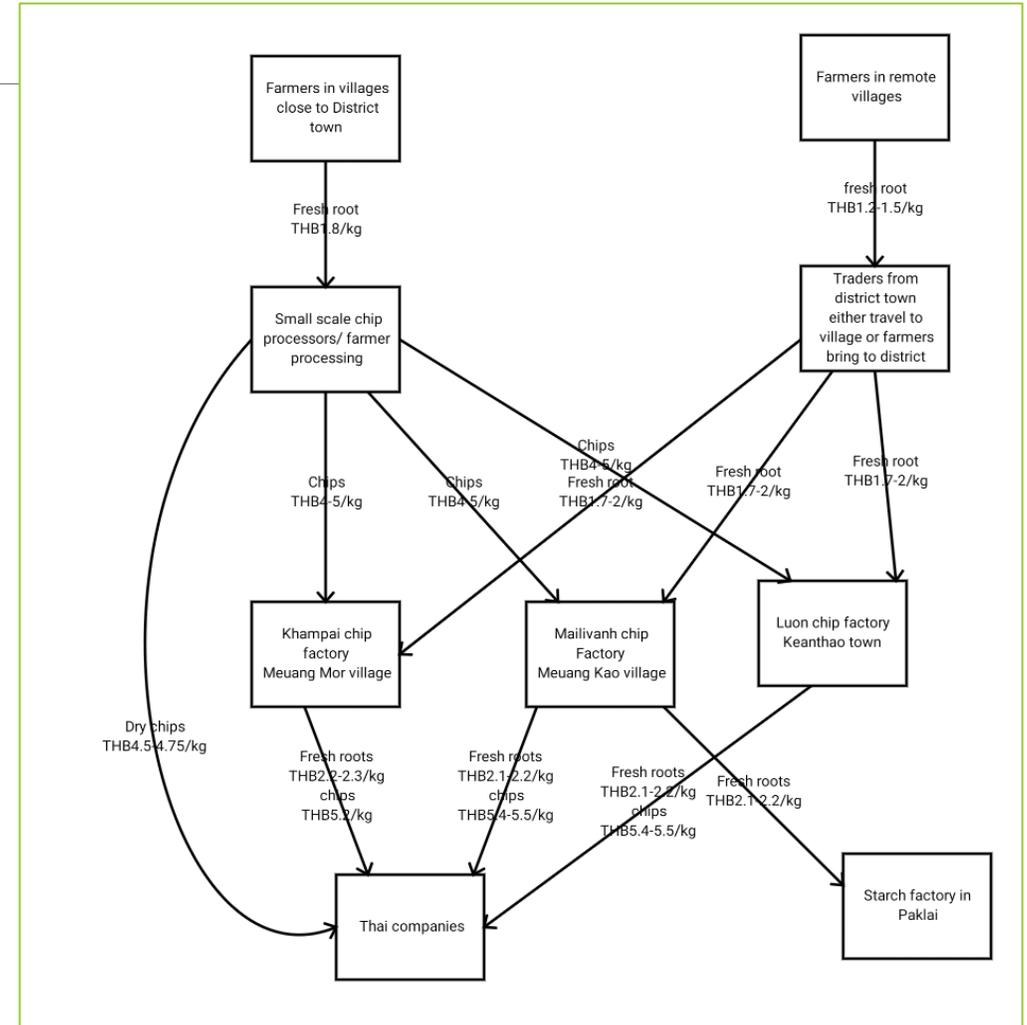
# Using the value chain assessment to identify initial entry points



# Structure of the value chain varies between sites and is dynamic in Lao sites

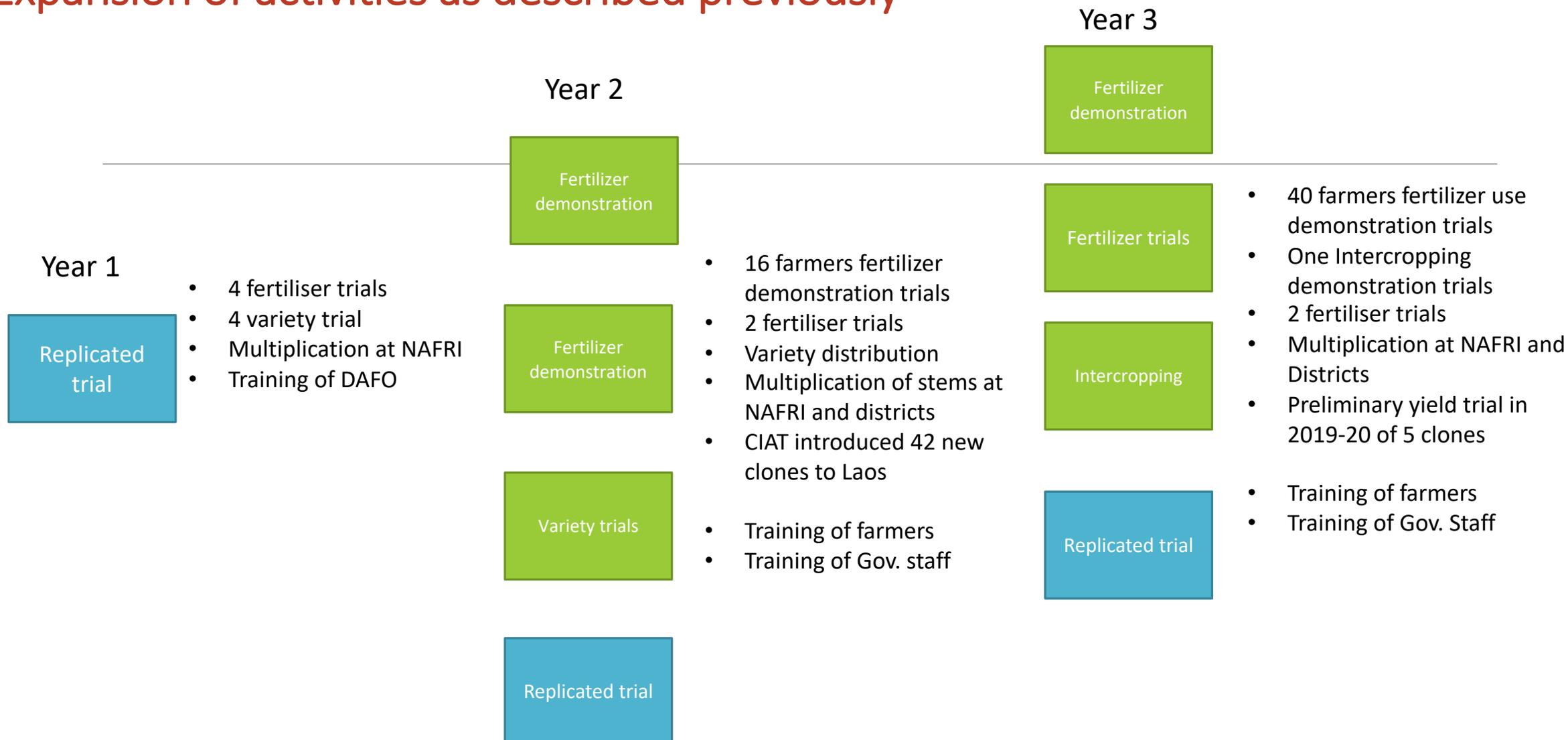


**Paklai, Xayabouli**



**Kenthao, Xayabouli**

# Expansion of activities as described previously



# Participatory demonstrations

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# Harvest field days involving private sector



Factory manager



# Focus group meetings for feedback on results and scenario analysis of 2018-2019 results



|    | 300                               | 500                                 | 600                                 |
|----|-----------------------------------|-------------------------------------|-------------------------------------|
| 20 | 6,000,000<br>-3,260,000<br>27,700 | 10,000,000<br>740,000<br>55,000     | 12,000,000<br>2,740,000<br>68,800   |
| 30 | 9,000,000<br>-260,000<br>48,200   | 15,000,000<br>5,740,000<br>89,300   | 18,000,000<br>8,740,000<br>109,900  |
| 40 | 12,000,000<br>2,740,000<br>68,800 | 20,000,000<br>10,740,000<br>123,600 | 24,000,000<br>14,740,000<br>151,000 |

# RTB gender researcher visit sites

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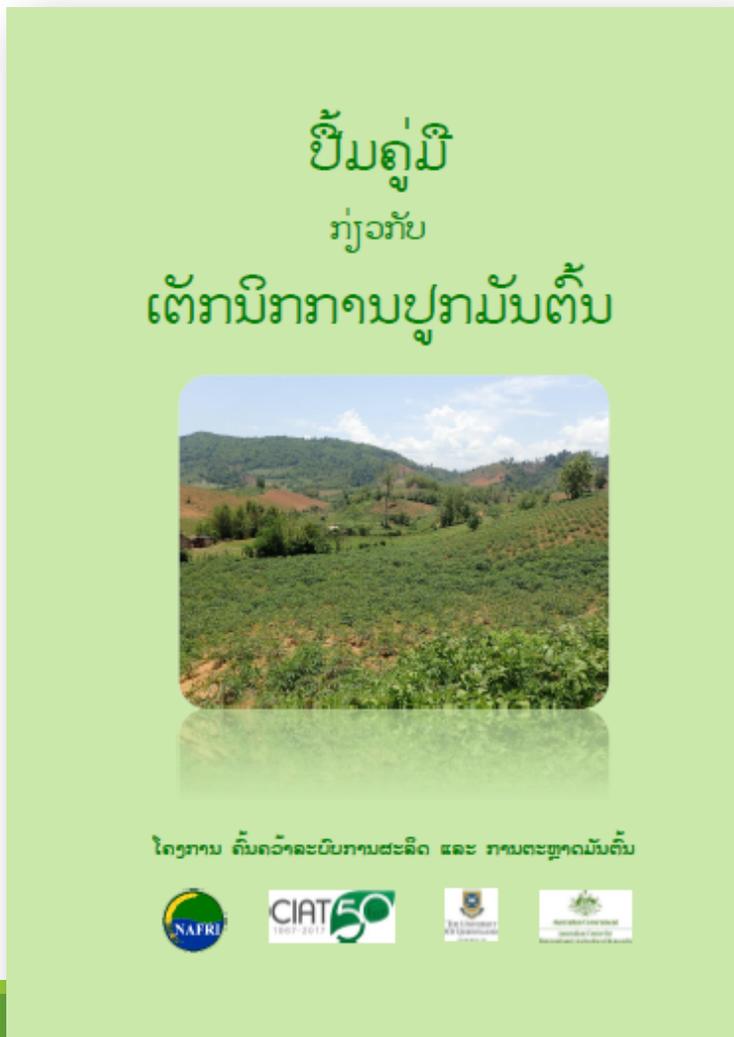




# Training Manual

Targeted at DAFO

Targeted at Farmers



# Harvest field days and training

Additional training conducted in 2018 with farmers and DAFO

Lao training manual download around 2,000 times from Lao44 website

| Activity                                                                   | Xayaboury | Bolikhamxay | Total |
|----------------------------------------------------------------------------|-----------|-------------|-------|
| Farmers participate formal and informal training (training and fielddays)  | 177       | 150         | 327   |
| Farmers participate field work (establish trials and demonstration trials) | 121       | 132         | 253   |
| Policy dialoge in local level                                              | 49        | 52          | 101   |
| Policy dialoge in national level                                           | 52        |             | 52    |
| Total participants                                                         | 732       |             |       |



# New tools to visualise impact during field days

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# Harvest field days held in each District late 2019 and early 2020





# Calculation of benefits at different scales



1. Impact of farmer incomes
2. Impact on root availability for processors
3. Impact on income at district level
4. Impact from potential levy system

# Multi-stakeholder engagement at local and national scale





# Constraints identified at National Meeting

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1. **High cost of transportation.** Eg. Adds **85 US\$ per ton** of the Thai price when exporting from Champasak
2. There are many weight and goods **checkpoints and fees** which are the barriers of commercial extension in the country.
3. **2+3 model of extension has issues** with private sector not able to **access capital** to support smallholders and **side selling from** farmers
4. **Market uncertainty.** Need for market intelligence on cassava demand and supply in the neighboring countries in order to avoid the oversupply of the production.
5. The cassava stems are not enough especially in the southern. Cannot import due to disease risk. Need to **develop domestic seed system**
6. **Incursion into forest frontier.** Need to follow agricultural development strategy which indicates the places for cassava production.

# Support for industry to support extension

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- The **farmers have limited knowledge** on fertilizer application, so there is the need for demonstration of using and not-using fertilizer in the main cassava production areas to compare the results.
- Some people concern about the using of fertilizer which might affect the quality of the production and should be followed the agreement of ASEAN on chemical residues before export. **Mixed policy messages.**
- The significant thing is that it might be good if private sectors, especially exporters or factories, can support farmers through the **experiment or demonstration** on integrated crops such as cassava + peanut, cassava + bean, or trials of use and non-use fertilizer. The good practices should be expanded to other areas.

# Farmer and industry associations

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- **Strengthening farmers' groups** in order to gain more advantage on getting technical and input supports, price information and payment method, and disease and pest information and management.
- **Private sectors associations:** such as traders and factories also need to form as a group in order to strength collaboration among all value chain.
- In order to achieve sustainable cassava production, there is the need for specific policy and regulations for cassava starting from **zoning**, allocation, cultivated registration, establish farmer groups and private sector groups. Without these things, there would be conflict among traders and farmers. This also will lead to the easy implementation of local authorities.
  - ***BUT REDUCES COMPETITION AND POTENTIALLY PRICE***

# National Lao Cassava Association

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- Factory/exporters (foreign investors) export Lao cassava by using other countries' logos. There should be our own Lao cassava brand/logo. Raise profile of Lao Cassava Industry
- Before establishing Lao Cassava Association, determine the role and how the association has a positive impact on farmers, traders and exporters. If just only the form of organization which collect only fees from members, it is not sustainable.
  - It is a good idea to start from farmer groups, trader groups, and exporter groups with getting the facilitation and support from local governments in order to collaborate among the value chain.

# Partnership with fertiliser importer??

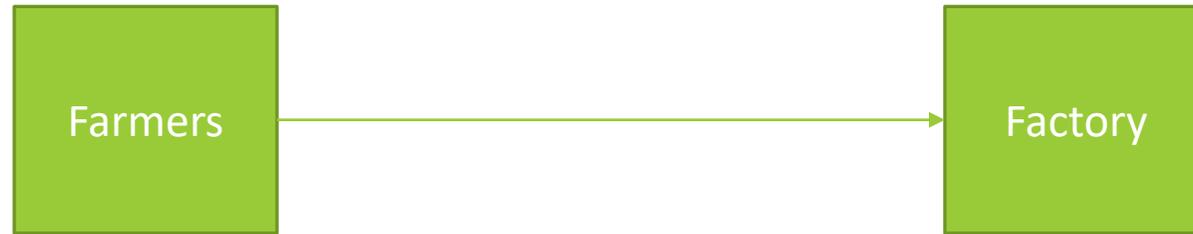
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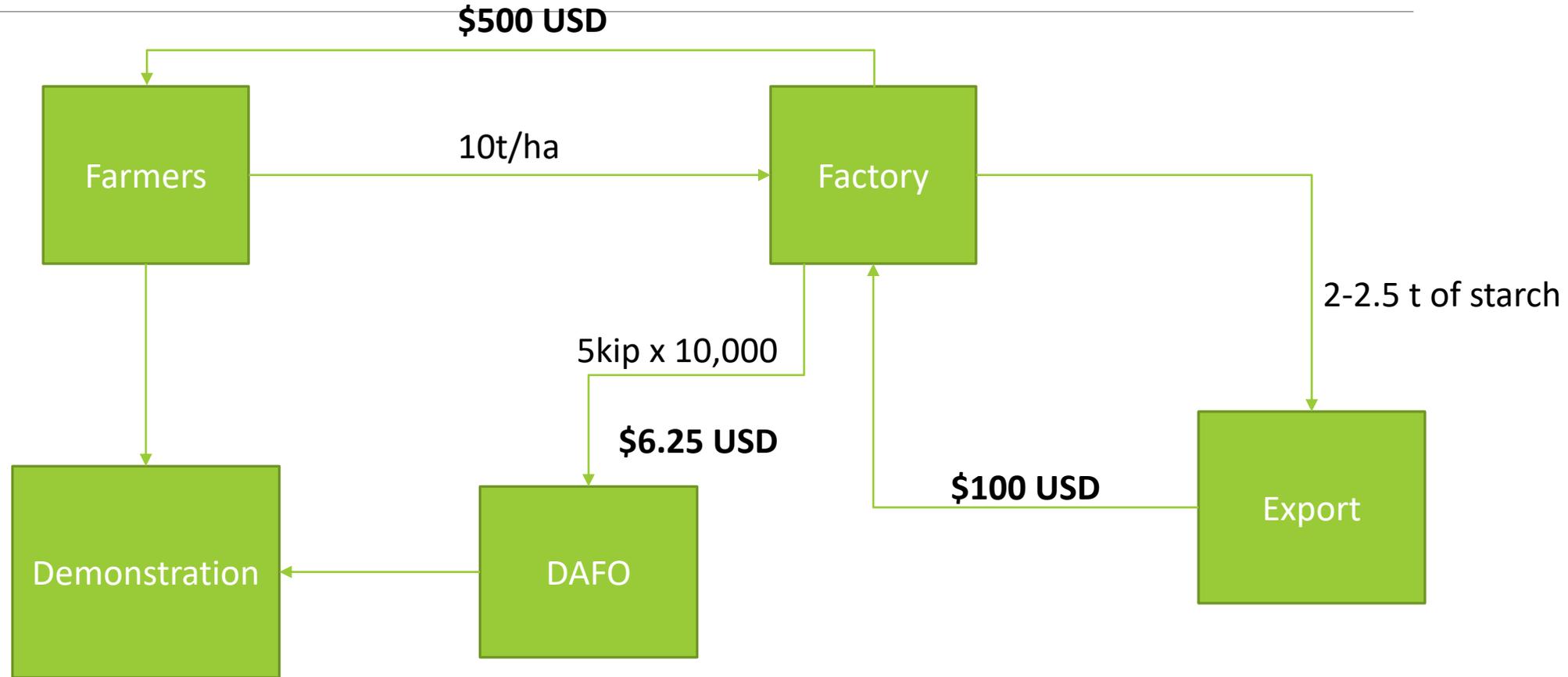
- Change in responsibility of staff within the company
- “Organic” production / Green Cassava low interest in some districts
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# Lead firm – monopsony working with DAFO

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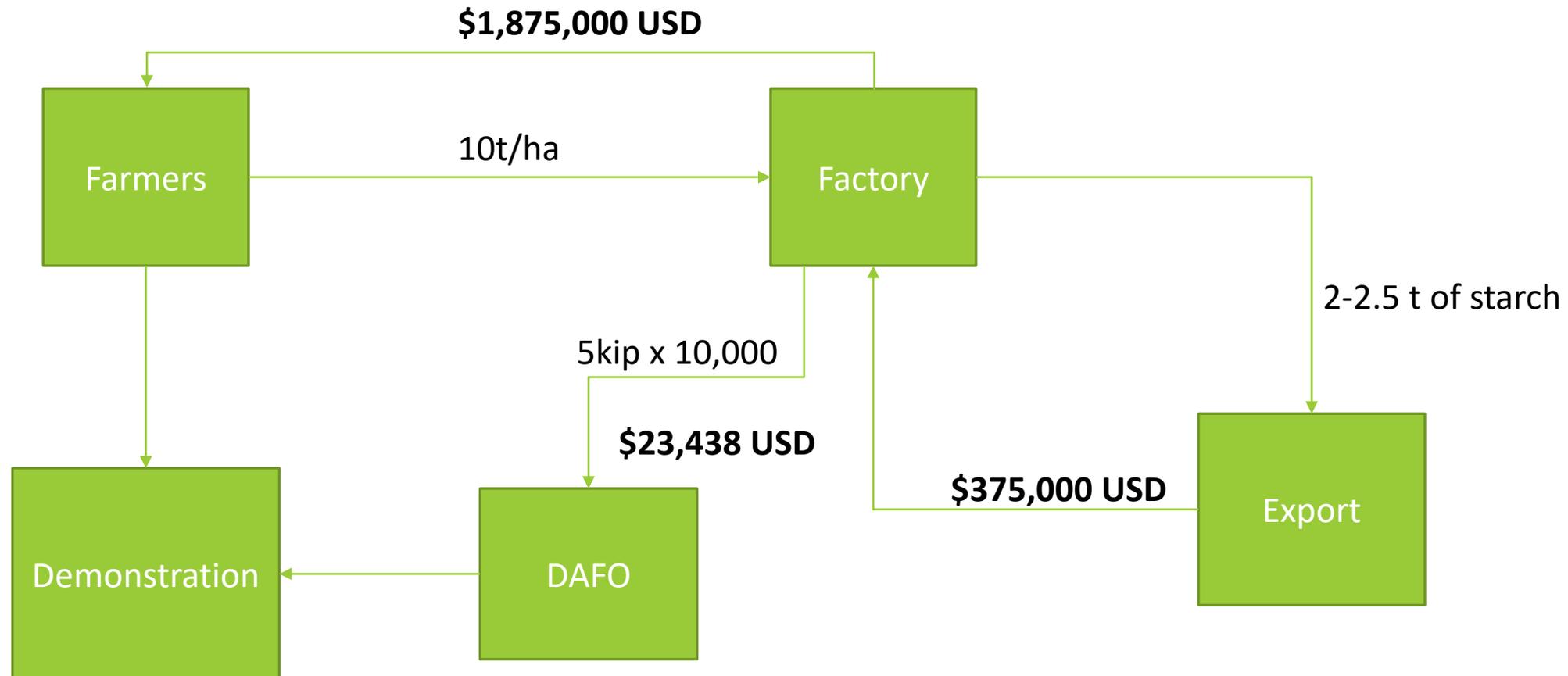


# Lead firm – monopsony working with DAFO (example from Paklai)

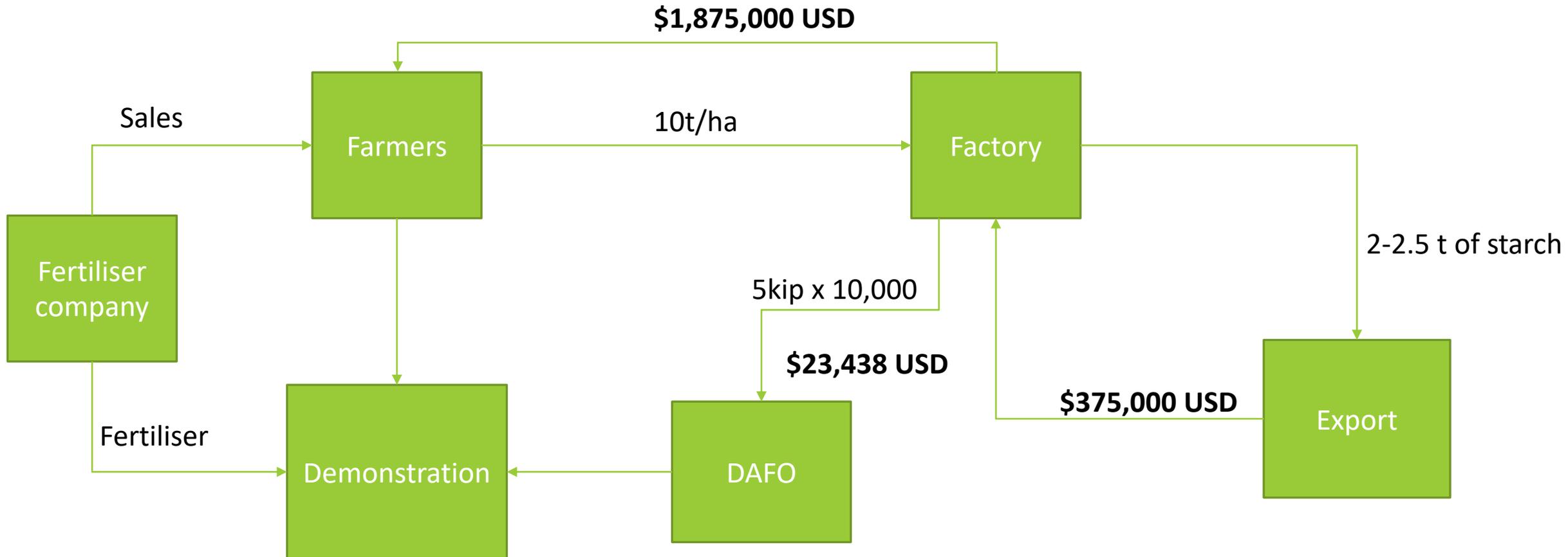


# There is 15,000 ha of cassava in Paklai....even at 25% adoption

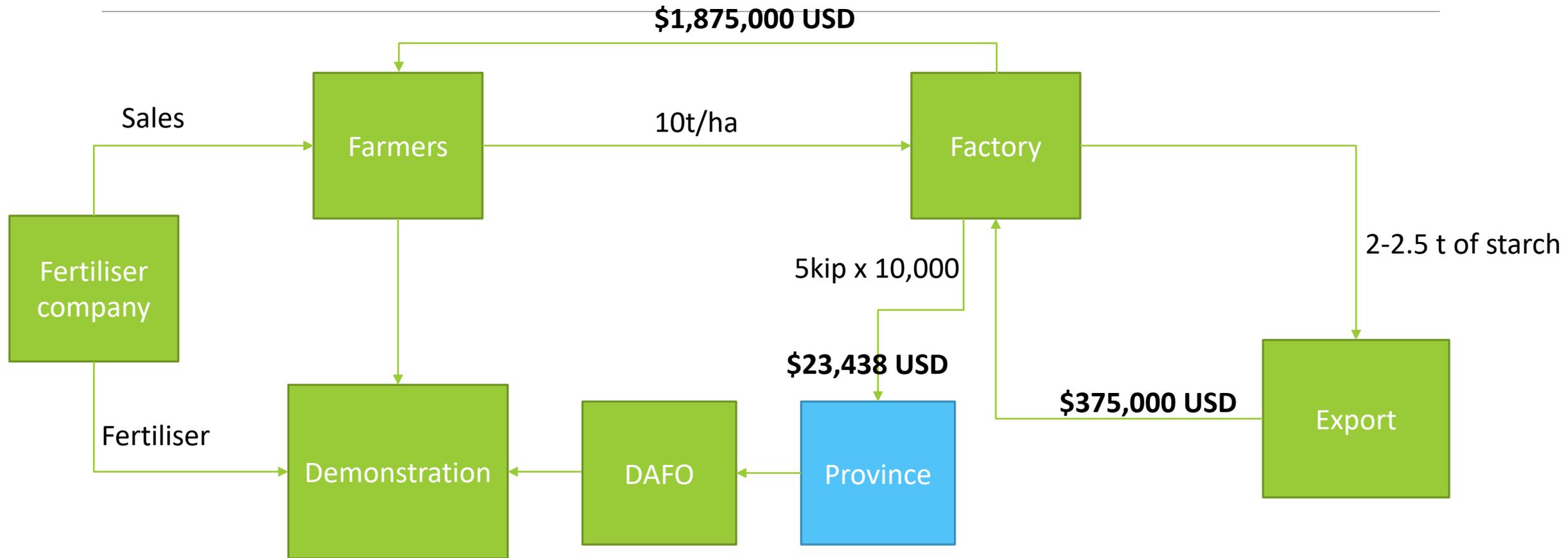
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There is 15,000 ha of cassava in Paklaiat 25% adoption



# Previous view was little naïve



# Continue to have this discussion

1. Both DAFO and Companies interested in establishing the rapid multiplication tunnels
2. Central location for tunnels at District level
3. Clean material provided to farmer/village groups
4. Continue to demonstrate other good management practices at those satellite sites



# Lao Cassava Association formed

The Lao Cassava Association (LCA) was established in 2019

Champasak, Salavan and Sekong Provinces



# Lao Cassava Development platform



The Official Opening of “Future Stems”  
&  
Master Training Course on  
“Sustainable Cassava Production and Farmer  
Participatory Research”



Australian Government  
Australian Centre for  
International Agricultural Research



Alliance



## FUTURE STEMS

was officially opened by

**H.E. Dr Phouang Parisak Pravongviengkham**  
Vice Minister, Ministry of Agriculture and  
Forestry, the Government of Lao PDR

**H.E. Mr Jean-Bernard Carrasco**  
Australian Ambassador to the Lao PDR

on  
19th March 2020

‘FUTURE STEMS’ is joint initiative between the CIAT and NAFRI to develop a sustainable cassava seed system in Lao PDR to improve the livelihoods of smallholder cassava farmers and ensure a profitable cassava sector into the future. The infrastructure has been supported by CIAT and the Australian Center for International Agricultural Research (ACIAR)



Alliance



# 'FUTURE STEMS' LAO CASSAVA SEED SYSTEM



**THAI WAH  
PUBLIC COMPANY LIMITED**



**RESEARCH  
PROGRAM ON  
Roots, Tubers  
and Bananas**



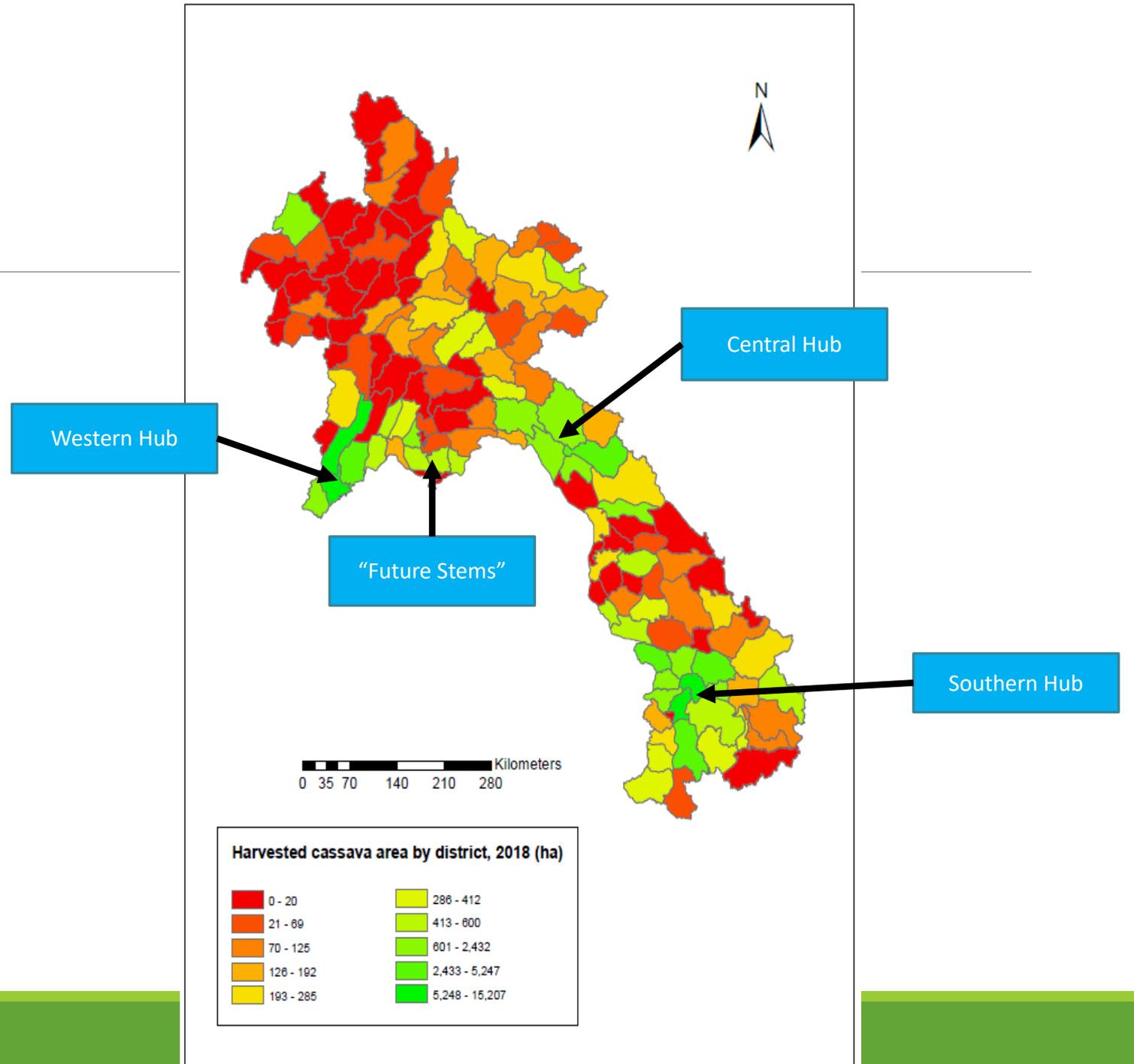
**USAID**  
FROM THE AMERICAN PEOPLE

# Vision

Recommendation domains for testing of varieties

Rapid multiplication

Learning hubs



# Evaluation

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# Capture impact to date



1. Use of Bennet's Hierarchy Framework

2. Method

1. Interview all households that hosted trials
2. Some farmers that attended training
3. Additional farmers from the same village
4. Discussion with DAFO
5. Discussion with Private Sector

| Kellogg Logic Model             | Inputs | Activities | Outputs       | Short-term Outcomes |                                                | Med-term Outcomes | Long-term Outcomes |
|---------------------------------|--------|------------|---------------|---------------------|------------------------------------------------|-------------------|--------------------|
| Bennett's Hierarchy Logic Model | Inputs | Activities | Participation | Reactions           | Knowledge<br>Attitude<br>Skills<br>Aspirations | Practice Change   | Impact             |

# Response from DAFO

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1. High turn over of district staff at Leadership and field level
2. All districts recognise importance of cassava – although often under report the area
3. Looking for opportunities to engage with private sector – but view of project team is this is a facilitated process and unlikely to happen without some external support

# Structured questionnaire with farmers

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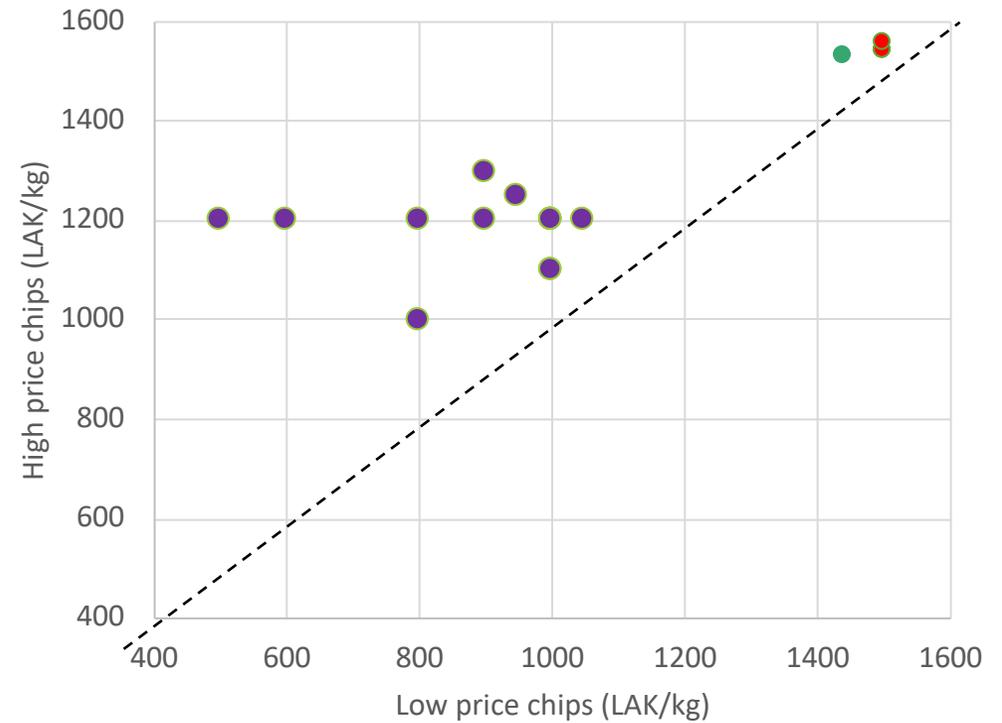
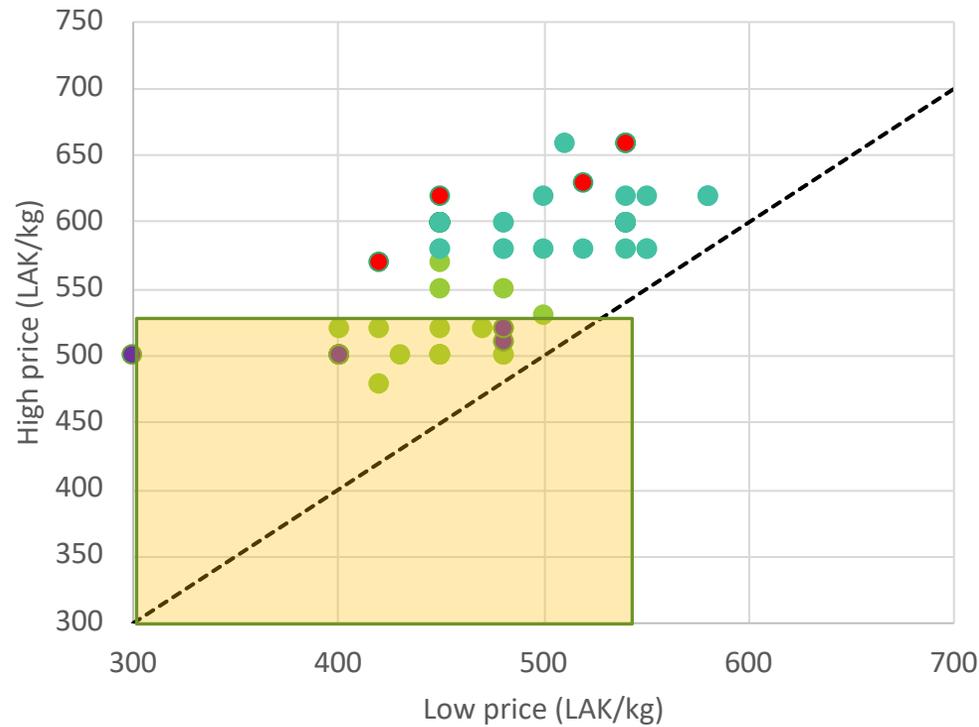


# Reaction to fertiliser demonstrations

|                                                   | Bolikan | Viengthong | Paklai | Kenthao | Total |
|---------------------------------------------------|---------|------------|--------|---------|-------|
| Apply fertiliser last year                        | 15%     | 5%         | 5%     | 5%      | 8%    |
| Understand NPK                                    | 5%      | 5%         | 5%     | 15%     | 8%    |
| Answered that they knew recommended fertiliser    | 10%     | 5%         | 15%    | 15%     | 11%   |
| Had applied fertilizer already for current season | 20%     | 0%         | 0%     | 5%      | 6%    |
| Interested in applying like demonstration         | 40%     | 30%        | 50%    | 45%     | 41%   |
| Why not (don't have money) i.e. already spent     | 50%     | 15%        | 30%    | 20%     | 29%   |



# Preliminary findings – price fluctuations



--- Series5   ● Bolikan   ● Viengthong   ● Kenthao   ● Paklai

● Viengthong   ● Kenthao   ● Paklai

Scenario analysis didn't capture the upside risk with 550 LAK/kg used as high price

# Land degradation remains a serious issue



| Perceived yield trend | Bolikan | Viengthong | Paklai | Kentha | Total |
|-----------------------|---------|------------|--------|--------|-------|
| Decrease              | 70%     | 35%        | 70%    | 80%    | 64%   |
| Increase              | 25%     | 20%        | 5%     | 20%    | 18%   |
| Constant              | 0%      | 35%        | 25%    | 0%     | 15%   |
| NA                    | 5%      | 10%        | 0%     | 0%     | 4%    |

Weeds, soil fertility, pest and disease

# Increased knowledge about CWBD



| Knowledge of Disease              | Bolikan | Viengthong | Paklai | Kenthao | Total |
|-----------------------------------|---------|------------|--------|---------|-------|
| Recognize CWBD in the field       | 90%     | 80%        | 70%    | 90%     | 83%   |
| Recognise CWBD in harvested stems | 95%     | 80%        | 65%    | 70%     | 78%   |
| Have CWBD last year               | 100%    | 80%        | 70%    | 90%     | 85%   |
| Remove CWBD infected plants       | 60%     | 50%        | 15%    | 25%     | 38%   |
| Check stems before planting       | 100%    | 80%        | 55%    | 80%     | 79%   |
| Heard of CMD                      | 0%      | 10%        | 5%     | 10%     | 25%   |
| Know symptoms of CMD              | 0%      | 5%         | 5%     | 0%      | 0%    |

Main impact was farmers doing positive and negative selection

Rouging of disease plants less common

# Initial impact of COVID-19 on cassava farmers

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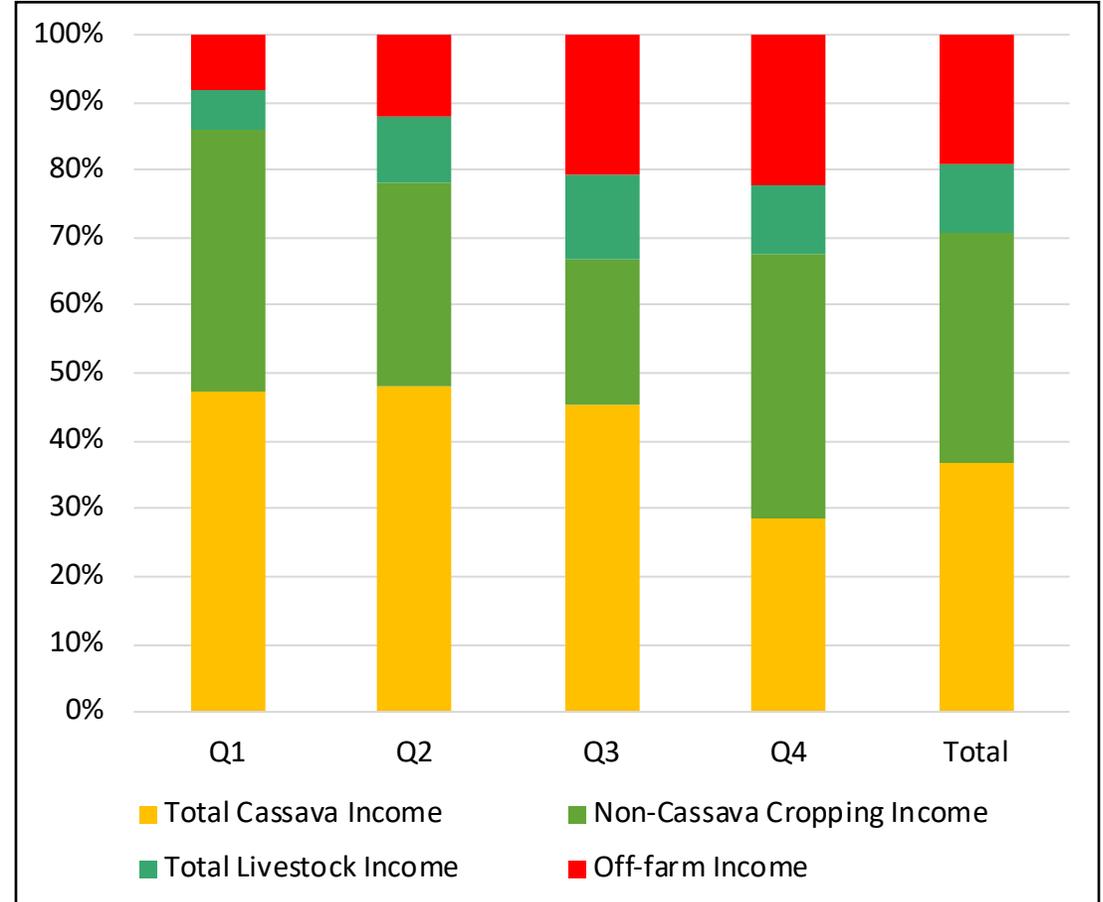
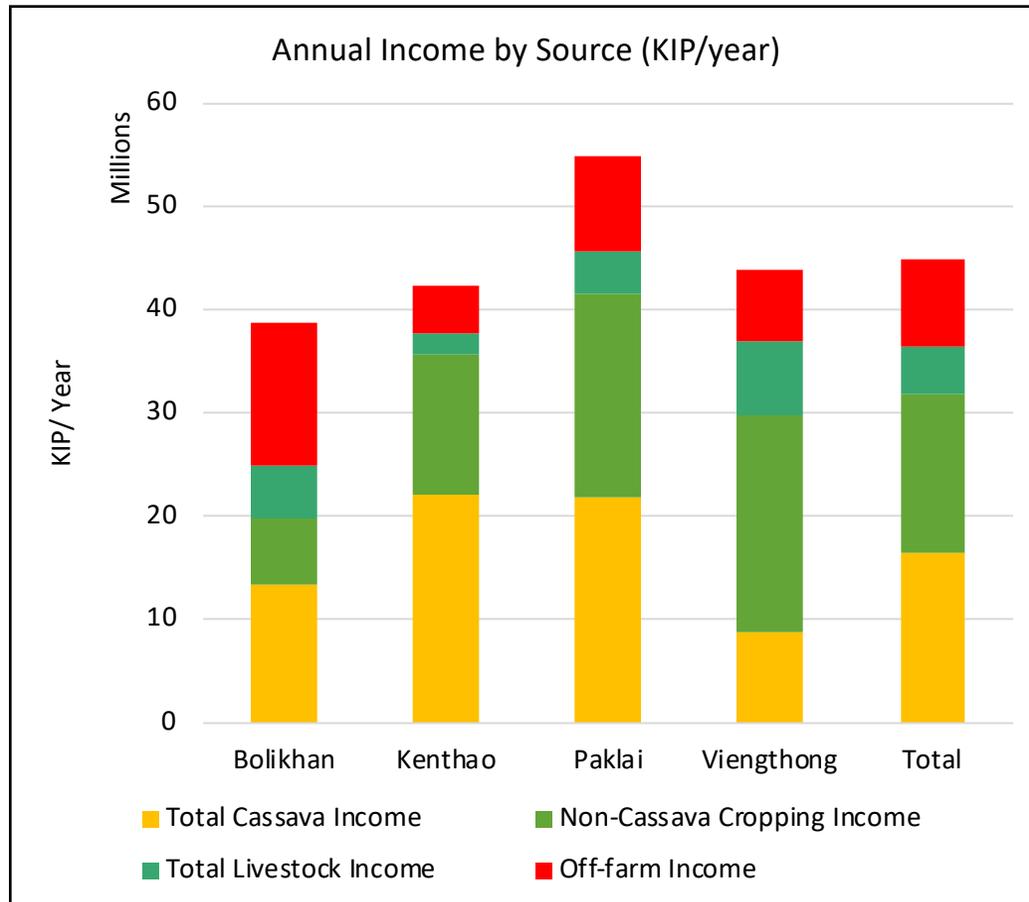
|                                   | Bolikan | Viengthong | Paklai | Kenthao | Total |
|-----------------------------------|---------|------------|--------|---------|-------|
| Aware of COVID                    | 100%    | 100%       | 100%   | 100%    | 100%  |
| Impact Cassava                    | 0%      | 10%        | 10%    | 5%      | 6%    |
| Impact of agricultural production | 0%      | 10%        | 0%     | 0%      | 3%    |
| Impact agricultural sales         | 5%      | 25%        | 0%     | 0%      | 8%    |
| Impact wages/salaries             | 40%     | 25%        | 5%     | 20%     | 23%   |
| Impact remittances                | 10%     | 5%         | 0%     | 20%     | 9%    |

Can't go to the field

Factory stop purchasing

Can't earn wages

# Annual income by source (baseline)





Concerns that unharvested fields are a reservoir for pest and disease

# Conclusion

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1. Continue to develop partnerships between local government and local processors in new ACIAR project for multiplication of clean stems and new varieties
2. Need to work on access to capital and savings for farmers to change practices
3. Need to engage development partners to support extension – limited budget of DAFO and unlikely to happen without external support
4. Strengthen multi-stakeholder platform
5. High level engagement with MAF and MOIC