## **Overview of the ACIAR Cassava Livelihoods and Value Chain Program**

Australian Government

Australian Centre for International Agricultural Research

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# Cassava Value Chains and Livelihood Program

The program consists of two interlinked projects

- Developing cassava production and marketing systems to enhance smallholder livelihoods in Cambodia, Lao PDR and Myanmar ASEM/2014/053
- Developing value-chain linkages to enhance the adoption of profitable and sustainable cassava production systems in Vietnam and Indonesia AGB/2012/078

# Cassava Value Chains and Livelihood Program

Analysing the socio-economic conditions under which improved technology and market booms in commercial crops such as cassava can be harnessed to increase the profitability and sustainability of smallholder farming systems in Mainland Southeast Asia and thereby contribute to poverty reduction.

# Objectives of ASEM/2014/053 and AGB/2012/078

- Objective 1 Assess opportunities and constraints for smallholder production and marketing of cassava within different value chains
- Objective 2 Increase the adoption of improved cassava production and processing technologies by strengthening linkages between primary value-chain actors (farmers, traders, processors) and with support actors (researchers, government agencies, industry bodies)
- Objective 3 Develop policy recommendations and facilitate learning alliances for the development of a sustainable cassava industry and improvement in rural livelihoods



## **Commercialisation Levels of Value Chains**



#### **Objective 1**

- Drivers and Dynamics of global and local markets
- Value Chain Analysis and Farmer Focus Groups
- Household Survey Training and Implementation
- Completed in 2016-2017



#### **Objective 2**

- Variety trials, fertilizer trials, intercropping and other trials completed
- 4 seasons of trials in Indonesia and three seasons of trials in Cambodia, Laos, Vietnam
- Results shared and discussed with farmers and value chain stakeholders



#### **Objective 3**

- This has been the main concentration of activities in 2018-2020
- Active involvement of government and private sector in project activities including trials and field days
- Development and evaluation of business models involving government and private sector
- Information sharing at local and national level workshops, research symposia, conferences, and training activities

Knowledge sharing and discussion in the website and Facebook group





## Some Key Findings

- At almost all sites across all countries, the agronomic trials were able to identify improved varieties, fertiliser or agronomic practices that led to improved yields and sustainable economic benefits for farmers under field conditions
- The potential for the transfer and adoption of technology by farmers in all sites is dependent on the characteristics of the technology but also on the characteristics of the value chain and the agro-ecological conditions that prevail. There is no "one size fits all" model for promoting technology adoption.
- Improved varieties and (to a lesser extent) appropriate fertiliser applications were the technologies that had the most potential for transfer and uptake. Farmers across all sites showed great interest in adopting improved varieties. Conservation agriculture practices and intercropping gained very little traction with stakeholders.



## Some Key Findings

- Pest and disease control and supply of clean planting materials has strong public good aspects, but may well have a low profit incentive if factories are operating individually. In these cases there is a need for collective action on behalf of processors, or for government or NGOs to intervene.
- Policies that are seemingly relatively unrelated to cassava production can have a major distorting effect on the performance of cassava value chains and the transfer of technologies. Examples of these types of policy include subsidies for fertiliser for rice in Indonesia and policies around loading and unloading of trucks at the border between Cambodia and Vietnam.
- Private sector incentives to invest in extending technology to smallholders are strongest where there is a natural or regulated monopsony situation, but even in these cases there is still a need for support and facilitation by an "honest broker" or by the local government if sustainable linkages to smallholders are to develop.



## **Future Orientations**

- North Sumatra Farmers are interested in adopting Malang4 variety and the factory is interested in disseminating through its agent-trader network. Will need a partnership with UB and ILETRI to continue bringing planting material until there is a critical mass of farmers able to supply own planting material.
- NTT There is potential for new animal feed production enterprises to source from local area. This will need ongoing support from local government and research to ensure supply of suitable varieties. Farmers are also very interested in getting higher yielding eating varieties for own consumption and this needs involvement of government and research
- Kratie Disease is a serious problem and there is a lack of clean planting materials. Two private factories in the local area have failed and Vietnamese factories lack incentive to support due to high levels of competition and breaks in the value chain at the border. NGO and government support will be needed to ensure supply of clean planting material.



## **Future Orientations**

- Bolikhamxay- Factory in Bolikhamsay competes with chip processors, but does face competition from other starch processors. Factory is willing to expand and work with more farmers and will work with government and researchers to support a rapid multiplication tunnel to ensure supply of higher yielding varieties.
- Xayabouly and Son La Starch factories in both locations are operating at full capacity during short season so there is no incentive for factory to support dissemination of higher yielding varieties. Factory has much stronger incentive to continue working with researchers and government to develop and disseminate varieties that would enable it to process over a longer period of time.
- Dak Lak An increase in the number of starch factories has led to a higher level of competition, some factory closures and many factories operating at less than full capacity. There is limited to no incentive for individual factories to disseminate new varieties. Factories forming an association and acting collectively would be the most effective method of private sector involvement in dissemination.



# Achievements beyond the initial project design

- Field trials and industry and government interaction in Ayeyerwaddy Division, Myanmar from 2017-2020
- Internship activities on developing online marketplace for cassava in Vietnam (2018) and on business case development (2019)
- Regional Research Symposium 2018 (Vientiane)
- Regional Research Symposium 2019 (North Sumatra)
- Provincial Project Stakeholder Workshops (Vietnam 2020)







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# Thank You



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