

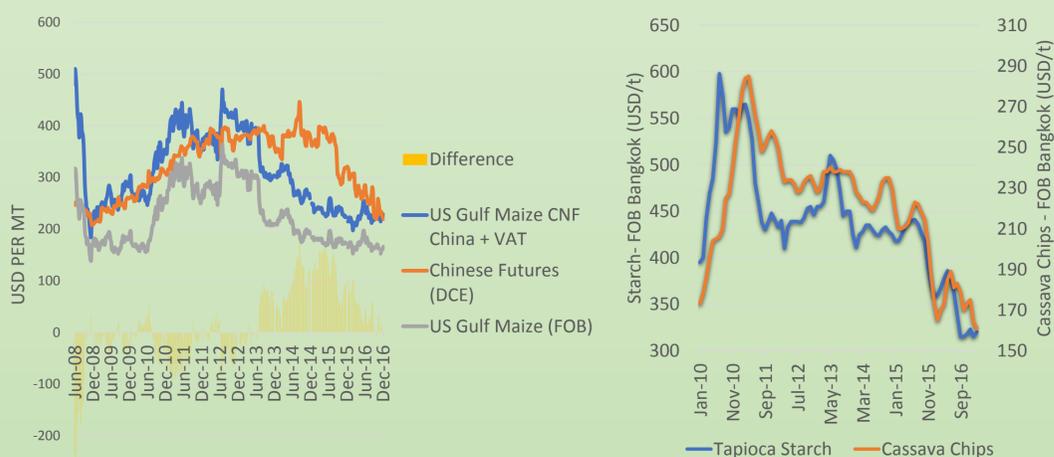
Strengthening value chain linkages to improve profitability and sustainability of cassava production systems in SE Asia

Introduction

- Throughout Southeast Asia, cassava (*Manihot esculenta Crantz*) is an increasingly important crop in terms of both rural livelihoods and regional economic development. Cassava production in most of Southeast Asia is a largely commercial activity to meet the rapidly growing regional demand for animal feed, starch products, and biofuel.
- Given its agronomic robustness, cassava production is well suited to resource-poor farmers living in marginal upland areas, who often belong to ethnic minority groups. Its cultivation provides an important source of cash income for these upland households, contributing to their food security and livelihoods.
- Despite its economic importance, the sustainability of the industry is under increasing pressure from a number of endogenous and exogenous factors, including soil erosion, declining soil fertility, emerging pests and diseases, and increasing labour costs.

Understanding global markets

- The market outlook for cassava, and hence the prospects for smallholder producers, are strongly linked to supply and demand in global starch, grain, and energy markets. Therefore, while the global demand for final products remains strong, the prospect for cassava is highly variable due to connections with several global commodity markets, exposing farmers to market risk.
- Foresight analysis can help both industry and smallholders understand the opportunities and risks associated with cassava production and processing.



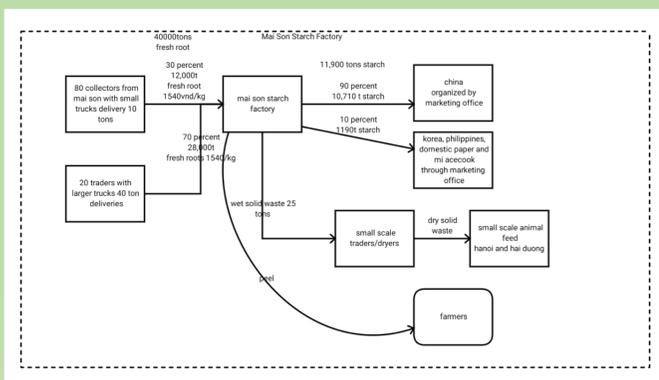
China is the largest importer of cassava products produced in SE Asia. Changing maize price support policies in China impact the price of cassava starch and cassava chips. This means the cassava root prices for smallholders have also declined significantly.

Understanding local and regional value chains

- Mapping the relationship between primary value-chain actors and supporting services in different agro-economic settings, including how information moves along the value chain, can help identify entry points and set priorities.
- Involving key value chain actors as investigators in value chain mapping exercises is an effective method of initiating information sharing between different stakeholders.



A trading agent for a large starch factory works with University researchers to map the flow of roots in North Sumatra



An example of value chain map developed with value chain actors in Sonla Province, Vietnam

Participatory evaluation of technologies with value chain actors

- Despite growing in marginal conditions, cassava responds well to improved management, and significant yield gaps have been identified both within and between regions.
- Various on-farm technologies have been developed to address many of the issues facing the crop, including improved industrial varieties, fertility management recommendations, integrated pest management, intercropping systems, and clean-seed approaches.
- Understanding different household livelihood strategies, decision-making, incentive and constraints to adoption is critical to scaling technologies and ensuring improved livelihood outcomes.
- It is important to involve value chain actors and other stakeholders in when assessing these new technologies and practices.



Understanding the role of gender in decision making and labor utilization in different contexts is also key to understanding adoption pathways



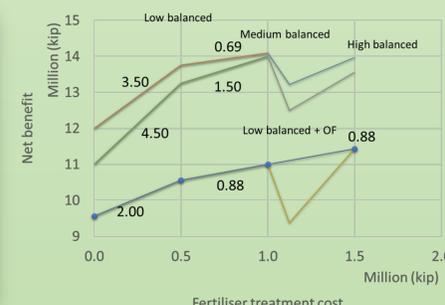
Farmers, traders, and processors evaluate cassava varieties together in Indonesia. Traders establish baby trials in supply zone

Understand the value-proposition and develop business models with value chain actors

- The cultivation of cassava offers a profitable livelihood opportunity, provided it is managed sustainably and farmers are adequately linked to both input and output markets.
- The value proposition for value chain actors to work with smallholders varies depending on the characteristics of the technology; the production system; and value chain context.
- Developing business models for different contexts can help improve adoption.



Farmers and processors involved in enterprise budgeting and conducting scenario analysis based on yields and farm gate prices.



Calculating the rate of return on fertilizer management trials in three location in Southern Laos.

Facilitate dialogues with stakeholders

- Frequent dialogues between stakeholders (industry associations, government policy makers from key departments, farmers and researchers) can inform provincial planning and policies aimed at supporting industry development and smallholder livelihoods
- Learning alliances between national partners and industry associations can be used to share lessons from the project and inform national policy
- Multi-country workshops help share opportunities to support smallholder livelihoods and improve cassava value chains in different contexts found in SE Asia.

Acknowledgements

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