

Improving market engagement, postharvest management and productivity of Cambodian and Lao PDR vegetable industries

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Overview

The vegetable industries in Cambodia and Lao PDR face a number of shared challenges. These include:

1. Low yields, especially in the wet-season
2. Poor competitiveness with regional neighbours, e.g. Thailand and Vietnam
3. High postharvest losses (25-40%)
4. Product that does not conform to quality and safety demands of consumers

In both countries there is strong market demand for high quality, high value vegetables during the late-dry and wet season, however it can be challenging to produce vegetables during this time.

Objectives

The overall aim of the project is to develop innovative production and supply chain systems that enable the vegetable industry to meet year round consumer demand for vegetables in Cambodia and Lao PDR. Specific objectives include:

1. Analyse opportunities and evaluate interventions that enable smallholders to successfully engage with and deliver high quality safe product into local and regional markets.
2. Determine quality constraints and food safety risks (pesticide and microbial) in current production systems and develop strategies for delivering high quality safe vegetables to market
3. Develop integrated crop management strategies that enable farmers to produce and market vegetables during the late dry and wet seasons
4. Foster communication and collaboration between government, NGO and private sector vegetable industry stakeholders

Research activities



Market research

Increased production and improved marketing of vegetables could help to present market opportunities and increase household incomes for smallholder farmers. While domestic and regional demand appears to be growing, farmers are generally challenged by lack of information about local and regional market opportunities and requirements, weak links to markets, seasonal price volatility and increasing competition from regional imports. This project is exploring whether farmers can supply markets at times of high prices, for a profit. Further, under what conditions is this possible? And, is there a role for collective action to enable farmers to access these markets?



Postharvest and food safety research

Food safety and quality are affected by on-farm and post-farm management. This project is conducting research to explore opportunities for interventions in the supply chain that can assist farmers to produce vegetables that meet the safety and quality standards demanded by consumers. These interventions include: improvement of postharvest handling and implementation of Good Agricultural Practices (GAP).



Project details

Collaborating institutions

1. National University of Laos, Lao PDR
2. Horticultural Research Centre, National Agriculture and Forestry Research Institute, Lao PDR
3. Clean Agricultural Development Center, Lao PDR
4. Cambodian Agricultural Research and Development Institute, Cambodia
5. General Directorate of Agriculture, Cambodia
6. Royal University of Agriculture, Cambodia
7. iDE Global, Cambodia
8. NSW Department of Primary Industries, Australia
9. Charles Sturt University, Australia

Timing

August 2014 to March 2019

Trial site locations



Figure 1. Trial site locations. Protected cropping structures are installed at all sites except Siem Reap, Cambodia, this site hosts irrigation research.

Production research

This project is trialling integrated crop management strategies that may enable farmers to produce vegetables during the late dry and wet seasons. The key innovation of interest is protected cropping. Across Cambodia and Lao PDR we have a number of sites with protected cropping structures in place (Figure 1). Early results indicate that the protected cropping structures provide a favourable growing environment for vegetables. Work to determine the affordability of these structures and the best crops to grow in them is on-going.



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More information

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