

Developing improved farming and marketing systems in rainfed regions of southern Lao PDR



Key details

Location

Lao PDR

Duration

Start Dec 2009

End Oct 2015

Budget

AUD 5,872,069

Commissioned organisation

Charles Sturt University

Partners

International Center for Tropical Agriculture; International Rice Research Institute; National Agriculture and Forestry Research Institute; National University of Laos; NSW Department of Industry and Investment; University of Queensland

Project Leader

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Program

Crops

Project code

CSE/2009/004

ensure that the poor participate in and benefit from the transition process. Increasing the supply of food and generating income from these systems is constrained by low fertility soils, weed competition, production and market risk (including drought and flood) and increasing cost of labour. Ineffective value chains and poor market access, inappropriate product quality, lack of infrastructure, extension and policy support impede farmers' efforts to change their farming systems. Risk-averse producers have little incentive to invest in better production and higher inputs.

Nevertheless, the lowlands and uplands in the south have potential for market surplus in rice, other crops and livestock, and therefore, a better understanding of regional market potential and comparative advantage is important. In the southern rice-based systems, there are opportunities to intensify and diversify the production systems with livestock and other crops, through the development of new technologies, and the adaptation of knowledge from the northern uplands of Lao PDR and neighbouring countries. Through better understanding and use of water resources, there is the opportunity to explore the use of supplementary irrigation to secure rice-based systems against drought, and improve prospects for short-duration post-rice crops and forages for livestock production in lowlands and uplands.

A multidisciplinary research team from institutions in Lao PDR, Australia and the Consultative Group on International Agricultural Research (CGIAR) centres,

Overview

The lowland and upland farming systems of rainfed southern Lao PDR have been identified as having elevated risk of hunger and rising rural poverty. The Government of Lao PDR recognises the south as an agricultural economy in transition, with a need to

established strategic and adaptive field research in the provinces of Savannakhet and Champassak, on-station and on-farm during wet and dry seasons during 2010 - 2013, and conducted associated synthesis activities with the following objectives:

- Diagnosis and integrated assessment of farming and marketing systems
- Optimisation, testing and adaptation of crop and livestock technologies and new marketing and extension approaches
- Sharing of knowledge and pilot scaling out of varieties, crop and livestock technologies and marketing approaches
- Alleviation of constraints posed by drought and uncontrolled flooding

The analysis of farmers' value chain and marketing operations, and synthesis of best-bet technologies, commenced with transect analysis from lowlands to uplands, and from subsistence to commodity agriculture. Systems research focussed around several hubs in Savannakhet and Champassak provinces. Adaptive on-farm research was established on approximately 300 farms in ten villages associated with these systems hubs to improve productivity and income from diversified systems in the lowlands and uplands, including attention to the priority poor upland districts of Xepon, Phin and Nong. These adaptive research trials focused on approaches for securing the wet season rice crop, assessing critical resources (water availability and market chains), and options for diversification (maize, short-duration post-rice crops such as pulses, vegetables and forages), and the integration of ruminant livestock. On-station trials were established to understand the interactions underpinning these diversifying mixed-farming systems. A concurrent focus on capacity building and co-location of international staff in-country lead to enhanced capacity, improved outputs and effective synthesis and delivery of project outputs.



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