Australian Government
Australian Centre for International Agricultural Research

Enhancing the resilience and productivity of rainfed-dominated systems in Lao PDR through sustainable groundwater use

Key details

Location
Lao PDR

Duration
Start Aug 2012 **End** Jul 2016

Budget AUD 2,190,914

Commissioned organisation
International Water Management Institute

Partners
Department of Irrigation; Department of Water Resources; Institute for Global Environmental Strategies; Khon Kaen University; National University of Laos; Natural Resources and Environment Institute

Project Leader
Paul Pavelic - International Water Management Institute

Program Water

Project code LWR/2010/081

Overview

This project has focused on two inter-connected goals: (i) contributing towards the sustainable management of groundwater resources; and (ii) demonstrating the use of groundwater for small-scale irrigation. It naturally also had a strong capacity building and training component.

Owing to a high prevalence of rural poverty in Lao PDR, improving the livelihoods of smallholder farmers by increasing their productivity is a high priority for the Government. Smallholder farming relies primarily on rainfall, which is prone to shortfalls and occasional droughts during the crop planting season. Reliable irrigation supplies would allow farmers to overcome water deficits and boost crop and livestock production, offering great potential for poverty reduction and increasing food security and livelihoods. Irrigation in Lao PDR has traditionally involved the use of surface water resources. Groundwater could also play an important role for smallholder farmers lacking access to reliable surface water supplies if these resources can be adequately understood and sustainably developed.

Groundwater development and usage in Lao PDR has been unregulated and the weak institutions in place have been unable to implement effective management. Experience in groundwater-based irrigation is almost non-existent in the country. Recent policy initiatives by the Government have bolstered water resources management planning, including consideration of opportunities for groundwater irrigation as an important area for development. With groundwater governance in

its early stages, there is a need to build capacity to assess and manage groundwater resources effectively and advance the use of groundwater for agriculture without compromising the users of the groundwater or the resource.