

STRENGTHENING AGRO-ECOSYSTEM HEALTH AND BUILDING RESILIENCE IN CLIMATE SMART VILLAGES

Locations	Cambodia, Laos, Vietnam
Dates	01/01/2015 - Ongoing

Summary

Climate change encourages new and existing pests and diseases to spread and makes management more difficult. This programme addresses this and aims to build resilience of the communities to pests and diseases and their management. It is operating in selected villages in Cambodia, Laos and Vietnam. The interventions feature innovative participatory and climate-adaptive agricultural practices to enrich and restore agro-ecosystem health, manage crop pests and diseases, and improve livelihoods.

The problem

The impact of significant outbreaks of pests and diseases on farmers' livelihoods and the important links to food security is widely accepted. Baseline surveys conducted in the three 'climate smart villages' (Tra Hat, Vietnam, Rohal Soung, Cambodia and Ekxang, Laos) highlighted the importance of pests and diseases, the limited awareness of their causes and management of the crops grown by farmers. Surveys also emphasized the widespread use of pesticides and the weak agricultural extension systems in all three regions.

What we are doing

This project aims to address these problems by:

- Conducting baseline assessments on crop pests and diseases (with focus on climate change-induced ones) in the three climate smart villages
- Developing "pest-smart" practices (ie. bio-rational pest management and ecological engineering) that are environmentally friendly and forge resilience to climate change in the villages
- Providing gender-based training using innovative extension approaches (eg. plant clinics/ campaigns/ rallies/ doctors/ entertainment/ education) and tools (eg. factsheets) to facilitate effective project implementation, communication and awareness

To do this we will:

- Perform a baseline assessment on pest and disease scenarios in three climate smart villages
- Conduct a situational analysis and a needs assessment in all three villages
- Evaluate interventions such as ecological engineering in reducing pesticides and the number of fruit flies trapped (both in Tra Hat, Vietnam)
- Implement education, training and post-training activities including: training of plant health advisors to set-up plant clinics and develop factsheets etc.; ethnoscience (culture with a scientific perspective) training; and training in ecological engineering for women
- Communication and awareness raising including blogs, visits and training

Results so far

The CABI team achieved the following outputs in the climate smart villages:

Tra Hat:

Staff from the Vietnamese Department of Agriculture and Rural Development (DARD) were trained as plant health advisors to manage plant clinics on a regular basis. So far, one plant clinic is in operation.

We have also trained local agricultural extension staff on fruit fly management. And trained farmers in ecological engineering and setting up field trials.

In addition, we carried out a post intervention survey.

Rohal Sourng:

Staff from the Provincial General Directorate of Agriculture (PGDA) along with local extension workers were trained as plant health advisors to manage plant clinics on a regular basis.

The team also performed capacity building activities and built awareness of key pests and diseases and careful pesticide management.

So far, one plant clinic is in operation.

Ekxang:

Staff from the District Agriculture and Forestry Office (DAFO), Laos have been trained as plant health advisors. The curriculum included:

- Diagnosing plant pests and diseases
- Establishing and operating a plant clinic
- Safely using pesticides including what clothing should be worn
- Sharing experiences on managing climatic extremes

One plant clinic is also in operation here.

The project has created a lot of interest because of its approach to managing pests and diseases. Through our work, we are building capacity and competency in the region and providing an innovative platform for information delivery via plant clinics. We also introduced safety measures on the use of ?hard pesticides? (those that stay in the pest and move through the food chain and generally WHO classified class II and some class III pesticides). The project will continue to build on these achievements with the support of local and international partners.

Donors	The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
Partners	CABI Associates, Aphivat Strey, WorldFish, International The CGIAR's Water Management Institute (IWMI), Ministry of Agriculture and Development (MARD), Vietnam





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