

## **Post Harvest Training Report in Lao PDR**

Dates: 27-31 October 2008, Thasano Research and Seed Crop Multiplication Center, Savannakhet Province

*Reported by Mr Khamouane Khamphoukeo project coordinator IRRC (PPWG)*

### **Objectives**

- To conduct five day agriculture machinery, mini combine and dryer training with Thasano Rice Research Station, Savannakhet Province, Lao-PDR.

### **Agriculture machinery, mini combine and dryer management for improved quality of rice grain and seed Training Course**

The training was conducted by Vietnam team Nong Lam University and NRRP activity at the Thasano Crop Multiplication Research Center, Savannakhet Province. Nineteen participants came from tree research station of NAFRI and farmer group representative (see list of participants in annex). Because of a low level of mechanization of agriculture machinery and postharvest in Lao and the poor maintenance and usage of tractor, mini combine and dryer effectiveness experienced by the technical staffs in research center and farmer group, the major objective of the training was to create awareness about effective usage of agriculture machinery, the mini combine, dryer and laser land leveling equipment and about improved postharvest management options in general. The training also brought researchers, farmers from farmer groups and the private sector together for the third time to discuss rice productivity and postharvest issues.

Day 1: 27 October

Morning: After the opening session in the classroom, Dr Tran Van Khanh from Nong Lam University, Vietnam, introduced agriculture tractors and machines.

Afternoon: Hands on practice: Know-how and discuss next to the machines and facility a tractor, some agriculture machines



Day 2: 28 October

Morning: In class room introduced Mini-combine

Afternoon: Components, assembly, usage, adjustment and maintenance.



Day 3: 29 October

Morning: Hands-on practice and discussions next to a mini-combine and maintenance.  
Afternoon: Know-how to operate and move mini-combine on rice field. Practice harvesting 0.4-ha-field with mature rice and measurement of losses.

Day 4: 30 October

Whole day: Hands-on introduction to drying technique and demonstration, rice for drying, rice huts.



Day 5: 31 October

Morning: Introduction to laser land leveling technique and demonstrations, hands-on practice in laser land leveling machine and demonstrations.

Afternoon: Summary of 5 days lessons, Question and answers, feedback from the participants, collection of thoughts of the participants, discussion of follow up plans after training, and closing of the training.

## Observations and conclusions:

After the practical sessions of the training we had facilitated a discussion between the participants and teaching team. Major topics were:

- We discussed what implications the training results had for the Lao postharvest system and how the message could be packaged and conveyed to the target groups.
- The participants found the training very useful since from the different groups (researchers, farmers group and private sector) most of the participants were dealing with postharvest issues the first time. Follow-up activities should focus on setting up and supporting an (initially informal) national postharvest network.
- The participants expressed so much gratitude to NAFRI for the provided training on rice postharvest management systems. The farmers group specifically want to buy some part of dryer equipment as motor and fan in cost cheaper from Mr Utai Taimany private. Farmers want to modify the dryer and replace the concrete with materials that their can find in they community.
- They saw the benefit that could be derived from use of the combine harvester. At a

capital cost of USD 5,000 (including shipping cost) from Vietnam for the demonstrated product, the equipment greatly reduces farm labor requirement at its rated capacity of 1 hectare/day. The farmers lamented the fact that the big competition for labor requirement with the neighboring country (Thailand which offering higher labor rate at US\$5-6 per day) during the harvesting made their PH operations very expensive. The current rate for farm labor in Lao is pegged at US\$3-4 per day. The farmer is now considering investing on a combine harvester. The combine harvester made from Vietnam has low cost but farmers said that it is not safe in use and felt it had high losses during the machine working in the field.

- The seminar ended with an evaluation of the participants learning during the five-days session. The evaluation was done through evaluation questionnaires prepared for the training. A general score before training they estimated background about 20% and after the participants was trained their capacity improved 75%, indicating that a good understanding of the issues was obtained by participants.

## **AGENDA**

**(27- 31 October 2008)**

### TRAINING PROGRAM ON USAGE, MAINTENANCE AGRICULTURE TRACTOR, MACHINES AND MINICOMBINE

#### **Day 1: 27 October**

---

**Morning:** *Introduce Agriculture tractor and machines*

Venue: Training room

Facility: a projector

**Afternoon:** *Know-how and discuss next to the machines*

Venue: Workshop

Facility: a tractor, some agriculture machines (as in training material)

#### **Day 2: 28 October**

---

*Mini-combine: assembly, usage, adjustment and maintenance*

Venue: Training room

Facility: a projector

#### **Day 3: 29 October**

---

**Morning:** *Practice and discuss next to a mini-combine*

Venue: Workshop

*Know-how to drive a mini-combine*

Venue: dry and flat yard or field

Facility: a mini-combine

**Afternoon:** *Know-how to operate and move mini-combine on field*

Venue: rice field

Facility: 0.5-ha-field with matured rice (qualified for harvesting);  
mini-combine(s)

**Day 4: 30 October**

---

*Know-how to operate and move mini-combine on field (continued)*

**Day 5: 31 October**

---

**Morning:** *Introduce drying technique*

Venue: Training room

Facility: a projector

*Know-how next to a dryer*

Venue: Workshop

Facility: dryer, rice for drying, husk as fuel

**Afternoon:** *Know-how and discuss next to a dryer (continued)*