

## Postharvest Situation

Cambodia is self sufficient in rice and exports surplus informally to Vietnam and Thailand. High losses caused by manual harvesting, sun-drying and poor traditional storage - physical postharvest (PH) losses of rice reach 15-25% quality losses are evenly high. Farmers don't value add. Rice mills have low milling yields and lack capital.

## Objectives

- Improve farmers' incomes through better postharvest management and better marketing of their rice.
- Improve milling yields of rice mills.

## Major Partnerships

- Provincial Departments of Agriculture in Prey Veng and Battambang provinces (PDA).
- Cambodian Agricultural Research and Development Institute (CARDI).
- Department of Agricultural Extension from MAFF
- Cambodian Federation of Rice Millers Associations

## PPWG Sites

The project works in 6 provinces: Battambang, Kampt, Kampong Thom, Prey Veng, Pursat, and Prey Veng. Svey Rieng has also expressed interest to join as a seventh province.

## Major Activities

- Three week PH training at IRRI (September 2005).
- Baselines / need assessments in 8 villages (2005)
- Capacity building for farmer intermediaries and farmers in Battambang and Prey Veng provinces (2006-2008)
- Technology transfer of dryers from Vietnam, advise to manufacturer (2005-2007).
- Hermetic storage of seeds at farm level (2006-2008).
- Farmer processing center with dryer and rice mill in BB (2006-2007), set up dryer in PV (2008).
- Combine harvester demo in BB and PV (2007-08).
- Village market information system (MIS).
- Village rice mill improvements (2007).
- Monitoring of first users and final users practice changes in Battambang and Prey Veng (2006-2007).
- Financial analysis templates for major technologies.
- Granary improvements (2008).
- Farmers meeting and congresses (2008).
- Participatory Impact Pathway Analysis, PIPA (2008).
- Inclusion of Kampt, Kampong Thom, Prey Veng, Pursat in the project (2009).
- Capacity building of farmer intermediaries in new provinces (2010).

## Technologies

- Mini combine harvester from Vietnam.
- Hermetic storage systems.
- Improved farmers' granaries.
- Flat bed dryer with 4t capacity (plus rice mill in BB).
- Village moisture meters.
- Market information system.

## For more information:

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 Rice Knowledge Bank: [www.knowledgebank.irri.org](http://www.knowledgebank.irri.org)

## Examples for Outcomes and Impact

### Market information system

For maximizing returns from their rice harvests farmers need up-to date information on rice markets to help them decide where to sell, when to sell and what quality to produce. Farmers in 8 villages increasingly make selling decisions based on information from the MIS ad have better negotiating power.



Market info on village info boards.

#### Features:

- Data collection on village, provincial and Phnom Penh markets every 3 days.
- Extension service and villagers use mobile phones
- Reaches 1,840 farmers in 8 villages.

### Hermetic storage of farmers seeds

Farmers' seeds loose germination within a few months. Hermetic storage enables them to maintain high germination rate beyond 8 months. Therefore they can reduce seed rates by 1/3 and sell more paddy in the market. Typically they can gain additional \$8 per harvest.



### Drying technology transfer

The project facilitates the transfer of proven technologies, such as paddy driers from Vietnam, to Cambodia.

#### Activities include:

- Training and study tour for Cambodian manufacturers in Vietnam.
- Setting up a farmers processing center with a dryer, rice mill and hermetic storage at a farmers group in Balat. The group has 76 members.
- Training of users in Balat.

Farmers benefit from higher milling yields and better quality from drying. The group sells the bran, usually left at the rice mill as payment, to cover the cost of the processing center.



Dryer manufacturing training in Vietnam



User training at dryer in Balat

## Plans for 2011

- Piloting of business models for postharvest technology usage.
- Further capacity building of farmer intermediaries in the new provinces.
- Establish a hermetic storage equipment supply chain.

## Issues to be addressed beyond 2011

- Out-scaling of business models.
- Linking to support service providers.
- Policy dialog to create a more favorable policy environment for development of the Postharvest sector.
- Institutionalizing of the Learning alliances.



ADB RETA 14

RETA14: Addressing the pre- and postharvest challenges of the rice supply chain.  
 RETA15: Strategic Research for Sustainable Food and Nutrition Security in Asia.



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