

Postharvest situation

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

Objectives

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

Major partnerships

- Provincial departments of agriculture (PDA) in Prey Veng (PV) and Battambang (BB) provinces
- Cambodian Agricultural Research and Development Institute (CARDI)
- Department of Agricultural Extension from MAFF
- Cambodian Federation of Rice Miller Associations

PPWG sites

The project works in six provinces: BB, Kampot, Kampong Thom, Pursat, and PV. Province of Svey Rieng has also expressed interest to join

Major activities

- Three-week PH training at IRRI (September 2005)
- Baseline/need assessments in eight villages (2005)
- Capacity building for farmer-intermediaries and farmers in BB and PV (2006-08)
- Technology transfer of dryers from Vietnam, advice to manufacturers (2005-07)
- Hermetic storage of seeds at farm level (2006-08)
- Farmer processing center with dryer and rice mill in BB (2006-07); set up dryer in PV (2008)
- Combine harvester demo in BB and PV (2007-08)
- Village market information system
- Village rice mill improvements (2007)
- Monitoring of first users' and final users' practice changes in BB and PV (2006-07).
- Financial analysis templates for major technologies
- Granary improvements (2008)
- Farmers' meetings and congresses (2008)
- Participatory impact pathway analysis (2008)
- Inclusion of Kampot, 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 4-t 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

Outcomes and Impact

Market information system

To maximize 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 eight villages increasingly make selling decisions based on information from the MIS and 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.
- In eight villages, 1,840 farmers have been reached.

Hermetic storage of farmers' seeds

Farmers' seeds lose 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 an additional \$8 per harvest.



Transfer of drying technology

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

Activities include

- Training and study tours for Cambodian manufacturers in Vietnam
- Setting up a farmers' processing center with a dryer, rice mill, and hermetic storage for 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 expenses of the processing center.



On dryer manufacturers training in Vietnam



Training on the use of dryers in Balat

Plans

- Piloting of business models use of PH technology
- Further capacity building of farmer-intermediaries in other provinces
- Establishing a hermetic storage equipment supply chain

Issues to be addressed

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