

## Project Identification (RETA14)

**Title:** Bringing about a Sustainable Agronomic Revolution in Rice Production in Asia by Reducing Preventable Pre- and Postharvest Losses. Subcomponent 2: **Reducing postharvest losses and increasing income by producing better-quality rice.**

**Duration:** Piloting Phase: Oct. 20, 2010 – Nov. 2011  
Implementation Phase: 2011-2014

## Problems addressed

Postharvest losses in Southeast Asian countries are typically 15–20% in weight and, when quality is factored in, can result in an additional 10–30% loss of value in the market. Losses occur along the postharvest chain in harvesting, drying, storage and milling and are caused by delays in the chain, outdated equipment and practices and inappropriate storage facilities.

## Objectives

The project's goals are to contribute to food security and poverty reduction through reducing postharvest losses and by enabling farmers to add value to their rice harvest. The objectives are:

- Improve farmer's income through better postharvest management to reduce losses and improve quality.
- Assist the industry to improve paddy quality and milling efficiencies.
- Assist Government with national standards, building capacity in postharvest, and assist in technology transfer from neighboring countries.

## Technology options

During the past 15 years, IRRI and its partners have developed and evaluated numerous new harvest and postharvest technologies that are designed to reduce losses and improve grain and seed quality:

- **Mechanized harvesting** technologies
- **Hermetic grain storage** systems ranging from 50kg bags to cocoons with several tons capacity
- Grain moisture meter and **quality assessment toolkit**
- **Grain-drying systems** with rice husk furnace for heating drying air
- **Training modules** for optimizing rice mill performance
- Market intelligence
- **Laser assisted leveling**

## Outputs

1. Appropriate postharvest **technologies and management options** developed, and are locally produced or distributed.
2. Agricultural **extension and/or advisory services** for post-harvest technology and practices that are suited to local country environments developed.
3. **Business models** for improved postharvest technologies developed and verified on a pilot basis.
4. **Multi stakeholder platforms** for a national postharvest network strengthened.

### For more information:

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## Links to other IRRI projects

The project builds on the previous ADB/JFPR postharvest project and links to the following other IRRI initiatives:

- The Irrigated Rice Research Consortium (IRRC) with additional postharvest activities in Lao PDR, Indonesia and Myanmar and with IRRC outreach programs.
- Rice Knowledge Bank (RKB).
- IRRI Africa program and Cereal Systems Initiative for South Asia (CSISA).

## Benefits



Understanding quality

Minimizing losses

Storing safely

Maximizing returns

## Implementation in Cambodia

### Locations/provinces:

Battambang, Kampong Thom, Kampot, Prey Veng, Pursat and Takeo.

### Partnerships

Coordination: MAFF  
Implementation: Provincial Departments of Agriculture, universities, private sector, NGOs

## Implementation in the Philippines

### Locations/provinces:

Main provinces: Camarines Sur, Bohol, and Agusan del Norte plus "Satellite sites"

### Partnerships

Coordination: PhilRice  
Implementation arrangements will be made after need assessments.

## Implementation in Vietnam

Coordination: NLU

### Locations/provinces

- |   |                                       |            |
|---|---------------------------------------|------------|
| 1 | Red River Delta + Thanh Hoa           | VIAEP, HAU |
| 2 | From Nghe An to Bin Dinh Province     | HUAF       |
| 3 | From Phu Yen to Ho Chi Minh           | NLU        |
| 4 | Mekong Delta north of Hau-Giang river | SIAEP      |
| 5 | Mekong Delta south of Hau-Giang river | CTU        |

### Partnerships\*

\* For abbreviations see back page

## Guiding Principles

- Need based **value chain** approach
- Building entrepreneurial skills
- National **Learning Alliances** embrace public and private stakeholders
- **Impact culture** established with impact pathway analysis and fostered through learning alliance meetings
- Foster **cross country learning** and technology transfer
- Strong **collaboration with NARES** centers of excellence
- Building on and **adding value** to national initiatives

## Priorities for 2011

- Facilitate Learning Alliance meetings on priority postharvest issues
- Continuation of technology verification in pilot villages
- Continue technology adaptation
- Pilot technology specific business models
- Develop and adapt extension methodologies

# IRRI-ADB Postharvest Project

## Abbreviations

ADB	Asian Development Bank, Manila, Philippines
CTU	Can Tho University
HAU	Hanoi Agricultural University, Hanoi, Vietnam
HUAF	Hue University of Agriculture, Hue, Vietnam
IRRI	International Rice Research Institute, Los Baños, Philippines
MAFF	Ministry of Agriculture, Forestry and Fisheries, Phnom Penh, Cambodia
NLU	Nong Lam University, Ho Chi Minh City, Vietnam
SIAEP	Southern Institute of Agricultural Engineering and Postharvest Technology, Ho Chi Minh City, Vietnam
VIAEP	Vietnam Institute of Agricultural Engineering and Postharvest Technology, Hanoi, Vietnam