

Improved postharvest technologies and management for reducing postharvest losses in rice

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Abstract

Rice postharvest losses in Southeast Asia are typically 15-25% and, if quality deterioration along the postharvest chain is factored in, farmers and processors are losing up to 50% of the value of their produce. Labor shortage caused by migration to urban centers and intensification of rice production often result in high harvesting cost and excessive losses. Combine harvesters have therefore rapidly been adopted in Thailand in the mid-1990s, in Vietnam at the turn of the century, and, since 2007, also in Cambodia. Additional harvests during the wet season and the very wet paddy coming from combine harvesters have led to a higher demand for better drying technologies. The flat-bed dryer has been successfully introduced in the Mekong Delta of Vietnam, with more than 6,000 units now being used. Since 2007, IRRI has worked with national partners to transfer the technology from Vietnam to neighboring countries, resulting in rapid adoption in Myanmar, Cambodia, and the Philippines. Hermetic storage systems, which provide modified atmosphere storage by natural means, can help farmers and the industry to safely store seeds and grains for more than a year while maintaining seed germination and milling quality even under tropical conditions. This helps control moisture and insects without pesticides. To increase the speed of adoption, new methodologies and support services were developed and piloted. These include participatory impact pathway analysis for the identification and analysis of actor-specific impact pathways, learning alliances, and the development and verification of business models for postharvest technologies.