

Addressing food security and post-harvest loss reduction through stored product protection

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Abstract

The Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss (FtF PHL Reduction Lab) is part of the U.S. government's Feed the Future initiative to reduce global hunger and improve food security. The initiative uses research, education and outreach to advance solutions to hunger, poverty, and under-nutrition in low-income countries. The FtF PHL Reduction Lab is a strategic and applied research and education program aimed at providing global leadership in food security by reducing post-harvest loss and food waste of durable staple crops (grains, oilseeds, legumes, root crops, seeds) and their processed value-added products. This program will require confronting constraints on integrating smallholder farmers (male and female), producer cooperatives, and agribusiness enterprises with market-based value chains from seed to the end-user. Post Harvest Loss (PHL) estimates are distressingly high considering the current and estimated future need for food to sustain a global population estimated to increase over 9 billion by 2050. These losses represent food already in the production system that could have been used to reduce food insecurity and hunger and to increase food quality/safety, nutrition, and market opportunities for the small landholder. PHL reduces real income for all consumers, which especially affects the poor, because such a high percentage of their disposable income is devoted to staple foods. PHL reduction also has significant gender implications since staple food production in most developing countries is the responsibility of women. Interventions under this project in the initial four FtF focus countries (Bangladesh, Ethiopia, Ghana, and Guatemala) will integrate smallholder farmers (male and female), producer cooperatives, and agribusiness enterprises with market-based value chains to a large extent by improving the protection of stored products through improved drying, conditioning, handling, storage, pest management, transportation, grading, standardization, and marketing of their crops, and thus improving the quantity and quality of crops. This presentation will provide an overview of planned activities and collaborations in the context of the larger global discussion on global food and nutrition security.

Keywords: post-harvest loss, food security, food waste, stored product protection, feed the future