

# Moving the ADMI Village forward: *the Climate-Smart Villages Project*

The ADMI Village project began in 2015 as a real-world proving ground for postharvest loss prevention practices. In partnership with three institutions in India, more than 6,000 farmers have received training and knowledge about postharvest loss and loss prevention techniques.

Over the next year, the ADMI Village project will become part of a larger effort to mainstream climate-smart technologies in India. Working with the Indian Council for Agricultural Research (ICAR) and other partners, the ADM Institute is integrating postharvest technologies into the “Scaling up Climate-Smart Agriculture (CSA) through Mainstreaming Climate-Smart Villages (CSVs) in Bihar” program.

The program represents a significant effort to empower farmers in Bihar to adapt current production practices to a changing climate. The project will reach 100 villages to scale up climate-smart innovations and make appropriate technologies and inputs accessible through local suppliers. Supplemental resources from ADMI will allow the program to integrate additional postharvest technologies and information.

The climate-smart villages program will include:

- Provision of grain dryers and drying services in CSVs over three years. Drying services are to be offered on a contract basis by trained service providers using dryers approved by ADMI partners.



*Women in Dib Sarsauna, Bihar, demonstrate hermetic grain storage bags.*

## 2018 project highlights

- 6,000 hermetic bags distributed among farmers of 32 villages
- 79 one-day training sessions in 32 villages attended by 3,500 farmers, including 1,500 women
- Two local manufacturers trained in fabrication for local production of adapted STR dryers
- Rural youth involved in the fabrication of small-scale grain dryers
- Facilitated local production of hermetic bags in Patna, Bihar, by a private manufacturer

- Subsidized distribution of at least 20,000 hermetic storage bags annually through local entrepreneurs trained in the importance of hermetic storage.

- Training on drying and storage for farmers and service providers in CSVs. Through this process, young farmers/entrepreneurs will be enabled to provide postharvest-related services like grain drying and sale of hermetic bags. Many trainers will be women, to help achieve the target of 35% of beneficiaries being women.

The transition to the climate-smart villages program from the original ADMI Village project promises to increase the reach of the technologies piloted at Dih Sarsauna and offers a structured mechanism to integrate postharvest training and technology distribution into broader farm supply and farm training networks.

The integration of the ADMI Village and postharvest technologies into the climate-smart villages program was made possible by two grants from ADM Cares.

# 2018 Highlights

## Finding Solutions

- Grain samples from small farms in Bihar, India, indicate hermetic bags decrease aflatoxin in maize by 75%
- Bihar research indicates average farmer could recover market price of hermetic bag in one season
- Market analysis indicates farmers selling onto informal markets in India receive 80% of the price premium from quality attributes associated with improved postharvest management
- On-farm testing in Bangladesh reveals that the BAU-STR dryer can reduce grain loss during drying to less than 0.5% compared to 3-4% using conventional methods
- Investments in laboratory equipment are promoting research on postharvest management in grains and oilseeds in Brazil, Bangladesh, and India



*Bangladeshi and Indian researchers convene in India to share their experiences and knowledge.*

## Implementing solutions

- USAID Innovation Lab for the Reduction of Post-harvest Loss received three-year renewal to support scale-up of technology in Bangladesh, Ghana, Ethiopia, and Guatemala
- In 2018, local partners instructed 3,500 farmers in India and 1,200 in Bangladesh in grain drying and storage methods
- All components for BAU-STR dryer are now produced in Bangladesh, increasing accessibility for farmers
- Farmer-to-farmer extension videos created by students from Illinois and Uganda demonstrate improved farming techniques for smallholder farmers through AgReach and a grant from ADM Cares
- Multi-crop threshers that save labor and reduce grain loss are being manufactured in Ghana, Malawi, and Uganda through the USAID Soybean Innovation Lab and a grant from ADM Cares

## Capacity Building



*Illinois graduate student Ayesha Sarker researches aloe vera as a preservative coating for vegetables.*

- Forty staff members from of the Bangladesh Ministry of Food trained in two workshops in Dhaka and eight Ministry of Food staff given a three-week course at the University of Illinois
- Hosted international meetings and symposia for researchers and professionals in postharvest management in Dhaka, Bangladesh; Pusa, India; and Urbana
- Four University of Illinois graduate students researching postharvest loss prevention with ADMI support
- Three Bangladesh Agricultural University students supported for graduate degrees related to postharvest loss prevention
- ADMI affiliates presented findings at regional and international conferences in the U.S., Canada, India, Bangladesh, and Brazil, and published 12 research papers in academic and professional journals
- ADMI staff contributed a book chapter on the ADMI Village project for postharvest extension practices textbook

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