

Improved mungbean harvesting and seed production systems for Bangladesh, Myanmar and Pakistan



Key details

Location

Bangladesh, Myanmar, Pakistan

Duration

Start Jul 2017

End Jun 2021

Budget

AUD 1,003,408

Commissioned organisation

The World Vegetable Center

Partners

Bangladesh Agricultural Research Institute;
Department of Agricultural Research; Pakistan
Agricultural Research Council

Project Leader

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Program

Crops

Project code

CIM/2016/174

Overview

This project aimed to establish and validate a practical and economically viable system that would enable smallholders in Bangladesh, Myanmar and Pakistan to harvest mungbean mechanically.

High labour costs and labour shortages at harvest time constrain mungbean production in Bangladesh, Myanmar and Pakistan. Harvesting costs account for more than half of the crop's total production costs, preventing expansion at a time when the nutritious legume is in high demand. Rising prices increasingly put mungbean beyond the reach of the poor.

In South Asia, mungbean was traditionally harvested by hand as the pods dried, which was labour-intensive but resulted in a high-quality grain. As labour costs increased, this was replaced by cutting the whole plant by hand, letting it dry in the field and threshing it using a machine – still relatively expensive and exposing the grains to rain damage.

The much-faster machine harvesting needs to be adapted for smallholder farms in Bangladesh, Myanmar and Pakistan. However, it is important to understand how that would affect women, traditionally the main harvesters. This project aimed to address these needs.



Project outcomes

- Progressive farmers and seed producers in the partner countries adopting good agricultural practices, including chemical desiccation, for mungbean production, and contract harvesters use tested, suitably adapted combine harvesters to harvest mungbean mechanically.
- Women family farmers being relieved of the drudgery of hand harvesting, and contracted women labourers have a possible alternative source of income.
- Farmers having access to good quality seed of improved varieties at the right time.
- The initial adoption by progressive farmers has motivated large numbers of other farmers in the partner countries to include mungbean in their cropping system and engage in mechanised harvesting.
- More combine harvesters are adapted/adaptable for harvesting mungbean, and more contractors are in the business of supplying mechanised mungbean harvesting services.



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