



Water and Crops Programs

# Rupantar: Transforming Smallholder Food Systems in the Eastern Gangetic Plain

## Overview

The Eastern Gangetic Plains of Bangladesh, India and Nepal are home to 450 million people, with the world's highest concentration of rural poverty and a strong dependence on agriculture for food and livelihood security.

The area has the potential to become a major contributor to South Asian regional food security, but agricultural productivity remains low and diversification is limited. This is because of poorly developed markets, sparse agricultural knowledge and service networks, inadequate development of available water resources, and low adoption of improved, sustainable production practices.

Current food systems in the Eastern Gangetic Plains do not provide smallholder farmers with profitable livelihoods, nor the population of the region with balanced diets, and put unnecessary pressure on natural resources. Transformation of the food system, with viable technical options for smallholders and interventions for scaling, is essential.

ACIAR and DFAT have invested more than \$25 million into diverse farming systems research in this region over the past decade. The new Rupantar project builds on existing work and partnership networks to provide a link between research outputs and development goals, through the demonstration of inclusive diversification pathways, definition of processes for scaling to the millions of smallholder farmers in the region, and generating a better understanding of the policies that support diversification.



## KEY FACTS

**ACIAR Project No.** WAC-2020-148

**Duration:** 1 October 2021 to 30 September 2026  
(5 years)

**Target areas:** The Eastern Gangetic Plains of Bangladesh, India and Nepal

**Budget:** A\$4.6 million

### Project Leader

Dr Tamara Jackson, University of Adelaide

### Key partners

- University of Adelaide
- Bangladesh Agricultural University
- CIMMYT (International Center for Maize and Wheat Improvement, Dhaka and Kathmandu)
- IFPRI (International Food Policy Research Institute, New Delhi)
- MoLMAC (Ministry of Land Management, Agriculture and Cooperatives, Nepal)
- RDRS (Bangladesh NGO)
- Satmile (Farmer Organisation, West Bengal India)
- UBKV (Norther Bengal University, West Bengal, India)

### ACIAR Research Program Manager

Dr Neil Lazarow, Dr Eric Huttner

## Objective

- Defining the processes and practices (technical options, scaling interventions, policy settings and implementation) that can be applied to achieve sustainable, efficient, diversified food systems at scale in the Eastern Gangetic Plains.
- Understanding the context for diversification in the Eastern Gangetic Plains.
- Defining and implementing diversification pathways using collaborative and inclusive approaches.
- Deepening understanding of the trade-offs and synergies associated with diversification pathways.
- Engaging and communicating with change-makers to ensure outputs are used and integrated into independent programs.

## Expected scientific results

- Producing a list of agronomic, economic, environmental and institutional development priorities as part of a formalised assessment process.
- Providing a framework for assessing scaling interventions that can be applied to existing and proposed initiatives to enable farmers and local businesses to improve their part of the food system in sustainable and inclusive ways.
- Examining policy settings at national and state/provincial levels that influence diversification of smallholder farming systems in Bangladesh, India and Nepal, with a micro-level understanding of how these policies are implemented.
- Increasing understanding of the changes associated with diversification at micro and macro levels, particularly regarding livelihoods, gender and equity, groundwater sustainability, nutrition and climate change.
- Quantifying projected impacts of diversification pathways over the medium to long term.

## Expected impact/outcomes

- Demonstrating pathways for equitable and sustainable diversified food systems in the Eastern Gangetic Plains.
- Improving evidence-based policies for planning and development programs that promote diversification.
- Self-sustaining diversification pathways that are owned by local partners and promoted without ongoing project support.

