



UNIVERSITY  
OF SOUTHERN  
QUEENSLAND

# Improving water use for dry season agriculture by marginal and tenant farmers in the Eastern Gangetic Plains

Centre for  
Agricultural Engineering

## Project Overview

September 2014—June 2020

**Location** India (West Bengal and Bihar),  
Nepal (Tarai) and northwest Bangladesh

The Eastern Gangetic Plains, which include the Nepal Tarai, Bihar and West Bengal regions, is one of the most densely populated and poverty-stricken belts in South Asia. There are entrenched social structures of class and caste, and poor access to irrigation in the dry season, limiting agricultural productivity and profitability.

The project is working across 30 pilot sites in ten villages to support new agricultural, irrigation and management practices. The Australian Centre for International Agricultural Research (ACIAR) funds the project, which is a collaboration of twelve partner organisations.



## Research Objectives

The key research objectives are:

- To determine existing water resources and sustainable utilisation for irrigation from tanks and groundwater
- To determine the socio-economic, structural and institutional constraints to sustainable water use
- To determine and evaluate approaches for access to water for irrigation focusing on using renewable technologies and alternate approaches to land tenure and their impact on livelihoods and resilience
- To facilitate long-term up-scaling and out-scaling of approaches and alternative opportunities



The project is demonstrating that the combination of innovative social interventions, such as the formation of farmer collectives, and introduction of appropriate biophysical interventions, such as high value crops and cost effective irrigation, can increase incomes and improve farmer livelihoods. Community engagement, capacity development and training has been a key aspect of the project, including the use of novel web tools and Apps for biophysical data collection and evaluation.

