



Australian Government

Australian Centre for
International Agricultural Research

Crops

Understanding farm-household management decision-making for increased productivity in the Eastern Gangetic Plains

Overview

Climate change has brought new challenges to reducing poverty in the Eastern Gangetic Plains (EGP) region of Bangladesh, India and Nepal, home to the world's largest concentration of poor people.

The governments of the three countries, in partnership with international agencies, have strengthened efforts to increase productivity in their respective agriculture sectors. Organisations have invested heavily in improving farming systems and the livelihoods of farmers in the region. Farming system innovations, encompassing new technologies, farm management practices and marketing arrangements, have also been introduced.

Despite these efforts, the uptake and impacts of introduced innovations vary significantly outside immediate program or project areas, even for innovations with excellent potential to improve productivity, profitability and farm-household incomes. This low level of adoption and adaptation applies to many types of innovations in South Asia but is particularly relevant for innovations, such as conservation agriculture-based sustainable intensification.



KEY FACTS

ACIAR Project No. CSE/2012/108

Duration: July 2018 to October 2021 (3 years)

Target areas: Bangladesh, Nepal and India

Budget: A\$1,576,213

Project Leader

Dr Fay Rola-Rubzen, The University of Western Australia

Key partners

- University of New England
- Uttar Banga Krishi Vishwavidyalaya (UBKV) University, West Bengal, India
- Rajshahi University (RU), Bangladesh
- Nepal Agricultural Research Council (NARC)
- Rangpur-Dinajpur Rural Services (RDRS) Bangladesh
- Bihar Agricultural University, Bihar, India

ACIAR Research Program Manager

Dr Eric Huttner

Objective

The project's overall aim is to improve the productivity, income and food security of smallholder farming households in the EGP through a better understanding of behavioural economics and its applications in farm management decision-making.

The project's specific objectives are to:

- ◆ Determine whether behavioural economics can provide additional insights into the adoption and adaptation decisions of farm-households in the EGP.
- ◆ Identify what specific behaviours and bottlenecks are leading to, or constraining the adoption/non-adoption outcomes, and explore their implications for extension, agro-input provision and agricultural service delivery.
- ◆ Develop, test and evaluate programme interventions on agricultural extension, input provision and service delivery that incorporate behavioural insights.
- ◆ Strengthen organisational and institutional (partnership) capacity to improve the impact of farming innovations in the EGP.

Expected scientific results

- ◆ Database on farm-household decision-making for the three countries (Bangladesh, India and Nepal) disaggregated by gender.
- ◆ Information on specific behaviours and bottlenecks leading to or constraining the adoption/non-adoption outcomes in the EGP and their implications for extension, agro-input provision and agricultural service delivery.
- ◆ A fundamental primary study into the use of behavioural economics for the design of behaviour change interventions in the complex social, cultural and political environment of smallholder farmers in South Asia.
- ◆ Results published in various policy briefs, research reports and journal articles.

Expected outcomes

- ◆ Critical information on farm-household decision-making allowing policy-makers and development practitioners and agencies (including ACIAR) to better target interventions.
- ◆ Enhanced delivery of extension services and complementary support needed by farmers to increase the uptake and efficacy of farming systems innovations, resulting in increased productivity, higher incomes and enhanced food security of farm-households.
- ◆ About 66,000 farm-households adopting conservation agriculture sustainable intensification technologies within 15 years of project implementation, with an estimated impact on smallholder livelihoods of about \$110 million.
- ◆ Reduced rice straw burning and CO2 equivalent emission.
- ◆ Women making up about one-third of the beneficiaries, with significant flow-on effects expected on household welfare.

