

Quantifying crop yield gaps across the Indo Gangetic Plain (IGP) from new perspectives – production, farmer profit and sustainability of water use



Key details

Location

Bangladesh, India, Nepal

Duration

Start Feb 2019

End Dec 2020

Budget

AUD 248,908

Commissioned organisation

[CSIRO](#)

Partners

International Maize and Wheat Improvement Center (CIMMYT); CSIRO

Project Leader

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Program

[Water](#)

Project code

WAC/2018/169

the effects of conservation agriculture-based system intensification (CASI) technologies, future climate scenarios, and some economic variables.

We consider this project to be a demonstration or 'proof of concept'. In this project we will begin the process of determining these different crop yield gaps across the IGP, and understanding how they are influenced by geography, resource dynamics (climate and water), economic settings, and future climate outlooks. We will employ a combination of cropping systems modelling, economic analysis, farmer engagement, and data-sourcing.

This project is part of the DFAT/ACIAR-funded [Sustainable Development Investment Portfolio \(SDIP\)](#) program.

Expected outcomes

- Determining the different crop yield gaps across the IGP, and gaining greater understanding on how they are influenced by geography, resource dynamics (climate and water), economic settings, and future climate outlooks.
- Facilitating a much broader analysis of the whole region in a subsequent project, bringing in the latest GIS, satellite and remote-sensing technologies, together with the latest economic and climate forecasts, to provide robust insights for regional policy-makers and other stakeholders.
- Synchronising this work with the major international initiative - the [Global Yield Gap Atlas](#) (GYGA)

Overview

This project aimed to quantify current yield gaps (physiological, economic, and sustainable water) for major food crops at sentinel sites across the IGP, and make preliminary assessments on

