



Value chain and policy interventions to accelerate adoption of Happy Seeder zero tillage in rice-wheat farming systems across the Eastern Gangetic Plains

Overview

In response to issues surrounding crop stubble burning in northwest India and the need to identify how best workable solutions such as the adoption of the Happy Seeder and Zero-Till seed drills can be accelerated, ACIAR have commissioned the University of Adelaide's Centre for Global Food and Resources to partner with Indian stakeholders to undertake a detailed field research study from December 2017 to August 2018.

The project focuses on examining how the adoption of Zero-Till seed drills (including the Happy Seeder) can be accelerated to help reduce the prevalence of stubble burning and boost sustainable food production and water security in northwest India and the Eastern Gangetic Plains (EGP).

Research

Specifically, research associated with this project will focus on addressing the following objectives:

1. Understand the full range of stakeholder contexts associated with accelerated Zero-Till seed drill adoption in each of the targeted states/regions.
2. Improve knowledge and understanding of private sector and farmer constraints to zero-tillage technology adoption, and opportunities for supporting accelerated adoption of Zero-Till seed drills.
3. Inform policy makers and private sector to help create a conducive environment for the accelerated adoption of Zero-Till seed drills for conservation agriculture-based sustainable intensification.

ACIAR project number	CSE/2017/101
Start date and duration (years)	December 2017 – August 2018 (10 months)
Location	India, Bangladesh and Nepal
Budget	AU\$249,160

Project leader(s) and Commissioned Organisation

Dr Adam Loch, Centre for Global Food and Resources, University of Adelaide

Partner country project leaders and their institutions

Various partner country institutions involved

ACIAR Research Program Manager

Dr Robyn Johnston



A series of recommendations has been developed, based on analysis of the Zero-Till and Happy Seeder value chains (including all stakeholders involved in technology manufacture, supply, research, extension, financing, purchasing and regulation), paired with detailed information from farmers to explore key issues associated with their decision to use the technology or not.

The following key recommendations are targeted to regional Governments to create enabling environments that support the accelerated adoption of Zero-Till and Happy Seeder technologies:

RECOMMENDATION 1: Implement an awareness raising strategy incorporating innovative digital media approaches that support the adoption of Zero-Till/Happy Seeder technologies, as a long-term opportunity to create positive motivation for on-farm adoption.

RECOMMENDATION 2: Expand the Innovation Platform approach from EGP regions to other targeted regions as an immediate priority to support the introduction and implementation of Zero-Till/Happy Seeder related technologies, facilitated through KVKs and Farmer Producer Organisations.

RECOMMENDATION 3: Provide machinery manufacturers with financial incentives to assist them in providing a larger network of retail agents, service centres and farmer training schools (focusing on the maintenance and operation of equipment) in addition to introducing random market place quality checks for equipment to help support the adoption of Zero-Till/Happy Seeder seed drills.

RECOMMENDATION 4: Establish a collaborative platform with representatives from the highest level of government, responsible ministries and the manufacturing sector to help ensure that long-term relationships and the needs of the industry sector are clearly identified and supported to help improve and support the development of effective Zero-Till/Happy Seeder seed drill supply chains.

RECOMMENDATION 5: Re-orient mechanisms that currently provide direct subsidies for machinery purchase, and devise alternative models of support directed towards a range of options. This includes the removal of Government GST on machinery purchase, and providing access to affordable finance (consideration towards interest rate subsidies for both manufacturers and purchasers of equipment) in addition to developing business planning skills for custom hire centre operators.

RECOMMENDATION 6: It is strongly recommended that a specific project team and support service comprising state governments, universities and international experts be established to provide a range of support services for the establishment of Custom Hiring Centres, including business and financial planning and governance support, business leadership and technical training.

RECOMMENDATION 7: Maintain a Regional Collaborative Platform comprising representatives from the highest level of Government (Agricultural Ministry; research, extension and policy related) for the Indo-Gangetic Plains region (comprising country representation from Pakistan, Nepal, India and Bangladesh). This group will provide a central platform for supporting the development of supporting government policy and the out scaling of Zero-Till/Happy Seeder technologies through sharing and dissemination of information, knowledge and training resources, on-farm validation of best management practices, training and capacity building.