

# Nepal

 **A\$0.77** million  
Budgeted funding

 **3**  
Bilateral and regional  
research projects

**Agriculture is the largest economic sector of Nepal. It supports livelihoods of 66% of the population and contributes 36% of national GDP. Farming is largely subsistence and cropping is mostly integrated with livestock production.**

Agriculture in Nepal is highly diverse due to the wide range of climates and geographies in the country. The challenges facing agriculture in the lowland Terai rice-wheat farming systems (part of the Eastern Gangetic Plains) are vastly different to those in the mixed crop-livestock-tree farming systems of the hill and mountain areas. Broadly, however, the challenges include:

- » the need for seed system improvements
- » degradation of natural resources
- » underdeveloped agricultural institutions and policies
- » declining availability of labour
- » access to productive technologies and mechanisation to improve farm household livelihoods.

Natural disasters frame the recent history of the country. In 2015, the deadliest earthquake in 81 years struck Nepal, followed by hundreds of aftershocks and another severe earthquake 17 days later. The process of recovery continues. In 2017, Nepal was hit by devastating floods, causing US\$172 million in losses and damage to the agriculture sector alone.

Nepal's Agriculture Development Strategy 2015–2035 outlines a vision for a self-reliant, sustainable, competitive and inclusive agriculture sector that drives economic growth and contributes to improved livelihoods and food and nutrition security. It conceptualises transformation of Nepal from a society primarily based on agriculture to one that derives most of its income from services and industry. The 20-year strategy aims to halve poverty in less than 10 years through an agriculture-led economy achieving improved governance, higher productivity, profitable commercialisation and increased competitiveness.

The Agriculture Development Strategy also guides policies that include women, and states that all agricultural programs will be designed to benefit women. It promotes women's organisations and agroenterprises led by women through specific programs and recommends equal wages for women labourers. The strategy also promotes action to raise awareness of women's rights to land, and builds the capacity of women to manage irrigation, water resources and finances.

## Country priorities

ACIAR has supported collaborative research with Nepal since the early 1990s, including projects on small ruminants, wheat and legumes. The focus for ACIAR during 2022–23 continues to be the engagement of Nepal in a regional program to improve integration of soil, water, crop, livestock and tree components of the farming systems.

Increased farm and forest productivity remains a core priority of Nepal for collaboration with ACIAR to improve food and nutrition security of the rural poor. In the Middle Hills districts, where the impacts of earthquakes and floods remain, our program supports the request of the Nepalese Government to focus primarily on research to support increased timber production from community forests. Another area of requested focus is understanding the implications of federalism on agriculture in Nepal.

Given the common agricultural production challenges across the alluvial plains of Nepal, eastern India and Bangladesh, cooperative research linkages with neighbouring countries will be explored further during 2022–23. The focus will be on conservation agriculture, to address key issues such as declining soil health, burning of rice stubble, falling groundwater levels and inequities in access to water.

Nepal hosts an important regional research body – the International Center for Integrated Mountain Development. ACIAR and DFAT are working with the center to identify prospective areas for research collaboration.

## 2022–23 research program

- » **3 ACIAR-supported projects in Nepal**
- » **1 project is specific to this country**
- » **2 projects are part of regional projects**

The research program addresses our high-level objectives, as outlined in the ACIAR 10-Year Strategy 2018–2027, as well as specific issues and opportunities identified by ACIAR and our partner organisations. The following sections briefly describe individual ACIAR-supported projects and anticipated outputs in Nepal. The projects are grouped according to research program. Each project description is referenced in a list at the end of this section, which provides the project title and code.

### Crops

Previous ACIAR projects have identified crop management options to increase productivity in the Eastern Gangetic Plains. This project led by Professor Fay Rola-Rubzen is identifying behavioural components of household decision-making about the adoption of new practices to support sustainable intensification based on conservation agriculture. In its final year, the project will collect evidence of the outcome of behavioural science-inspired methods to inform and engage farming families.<sup>1</sup>

### Forestry

The Middle Hills of Nepal are home to 44% of the country's population, and most people gain their livelihoods from a combination of agricultural and forest products. Most forest lands have been returned to community forest user groups, with suboptimal management and minimal timber harvest. Previous ACIAR-supported work demonstrated the effectiveness of a silvicultural management package called Active and Equitable Forest Management to improve livelihoods, social equity and environmental impacts. Dr Ian Nuberg of the University of Adelaide leads a project focusing on adopting improved forestry practices, developing community forestry planning, governance and gender equity frameworks, and poverty-reducing, small-scale forest enterprises in Kahbre Palanchok and Sindhu Palchok districts. In 2022–23, researchers will document case studies and report on the policy implications of research on community forest enterprises.<sup>2</sup>

### Water

The Eastern Gangetic Plains straddles Bangladesh, India and Nepal. The region is home to 450 million people and has the world's highest concentration of rural poverty. People in this region have a high dependence on agriculture for food and livelihood security. Dr Tamara Jackson of the University of Adelaide leads a project to understand the processes and practices of transforming of food systems through diversification to improve farm livelihoods while reducing inequity, production risk and unsustainable resource use. By gaining an understanding of the existing context for diversification in the region, and associated technologies, scaling interventions, and policies and programs, the project will consider these elements individually and demonstrate the interactions between them using case studies to highlight where and how diversification has occurred in the past. In subsequent phases, the project will identify priority opportunities with communities and determine their fit with projected climate change and water availability, and the impact of high-level policies.<sup>3</sup>

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See page 186 for contact details.

## Current and proposed projects

1. Enhancing farm-household management decision-making for increased productivity in the Eastern Gangetic Plains [Bangladesh, India, Nepal] (CSE/2012/108)
2. Enhancing livelihoods through improved forest management in Nepal (FST/2017/037)
3. Transforming smallholder food systems in the Eastern Gangetic Plain [Bangladesh, India, Nepal] (WAC/2020/148)