

Bangladesh

A\$4.3_{million}
investment in agricultural
research for development

15 projects



11

Bilateral and regional
research projects



4

Small projects and research
activities



8

Projects specific to
Bangladesh



7

Regional projects

Note: Additional projects may be commissioned during 2024–25.



Agriculture plays a pivotal role in the Bangladesh economy and in the lives of much of the population. It is an important driver of economic growth and rural development.

Agriculture accounts for almost 11.5% of the gross domestic product (GDP) and provides employment opportunities for about 45% of the workforce. While Bangladesh is transforming from a country of chronic food shortages to one of net food grain self-sufficiency, the country still faces substantial food security challenges, and many people still live below the poverty line.

Rural communities

About 60% of the population of Bangladesh lives in rural areas and rural livelihoods depend on agriculture for food security, nutrition and supply of raw industrial inputs. An estimated 58.5 million people are employed in the primary sector. The livelihoods of about 1.5 million people depend on, at least partially, fisheries and aquaculture and approximately 20% of the population is directly engaged with livestock production and related activities. The total forested area of Bangladesh is 2.6 million hectares, which is nearly 17.4% of the total land area of the country. The forestry sector accounts for about 3% of the GDP and 2% of the labour force.

Political and economic environment

An interim government was formed on 8 August 2024 following the resignation of the former Prime Minister on 5 August. The situation remains volatile leading to many uncertainties for ACIAR research program in Bangladesh.

Bangladesh had maintained a concerted effort towards the overall development of the agriculture sector. There were many strategies, policies and plans developed to guide this effort, including Vision 2041, 8th Five-Year Plan, the Master Plan for Agricultural Development in the South, The Perspective Plan 2021–2041, Bangladesh Delta Plan 2100, the Bangladesh Good Agricultural Policy 2020 and the UN Sustainable Development Goals. The Bangladesh Climate Change Strategy and Action Plan is the de facto policy document that provides strategic direction for work on climate-change related issues. Many elements of climate-change adaptation in the country were being addressed through specific sectoral policies.

Climate change

Climate change is the most pressing issue for Bangladesh, with varying levels of vulnerability and impact across the country. Coastal areas are prone to salinity intrusion and tropical cyclones, the floodplains in the central areas are prone to floods, the north-western region is prone to drought, the north-eastern region is prone to flash floods, and the hilly regions are prone to erosion and landslides. Bangladesh is an active participant in the global effort to combat climate change and must develop adequate adaptive capacity to protect its people and economy. In view of the substantial long-term challenges presented by climate change, the government developed a long-term Bangladesh Delta Plan 2100 that focuses on developing approaches to sustainable management of water, environment and land resources. Bangladesh plays a vital and active role in international and regional forums, particularly the United Nations, Commonwealth and South Asian Association of Regional Cooperation.

Food insecurity

Bangladesh has made impressive progress in achieving national food security. Investments in agricultural research have played a pivotal role in driving productivity increases of major crops. The ongoing challenge is to improve the sustainability of agricultural production, productivity of low-lying areas and rainfed cropping systems, and increase rural incomes. This goal is adversely affected by increasing seasonal climate variability, reduced freshwater river flows and seawater intrusion.

While poverty is steadily declining, many people still live below the poverty line. Approximately 40 million people remain food insecure and 11 million suffer from acute hunger. Since 2017, Bangladesh has also seen a large influx of Rohingya refugees from Myanmar.

Partnering with Australia

ACIAR has supported research collaboration with Bangladesh since the mid-1990s and focused on the productivity of dry winter (rabi) crops like pulses, wheat, maize and watermelon in the rice fallows. The program recently shifted its focus towards a farming systems approach to support food security, improved production and diversification of the rice-based farming systems, and adaptation to climate change. This approach includes research on short duration varieties of pulses to fit specific biophysical challenges of Bangladesh pulse production systems, conservation agriculture technologies and related mechanisation, saline land management and adaptation to climate change. ACIAR-supported programs in Bangladesh have focused in the undulating and sloping lands of the north and north-west and the coastal region (which is the poorest and most vulnerable region in the country).

Bangladesh's ability to maintain food security in light of the country's high vulnerability to the impacts of climate change underpin the priorities for ACIAR support. The [ACIAR–Bangladesh Collaboration Strategy 2021–2030](#) enables the possibility of longer-term and flexible programs that respond to complex challenges and enables a recalibration of the relationship, affirming the changing nature of the partnerships and the role ACIAR plays in catalysing regional collaboration. This strategy acknowledges how the relationship between ACIAR and Bangladesh has evolved to become a strong partnership of co-investment and emphasises the importance of the contribution of ACIAR to regional collaboration.

The Krishi Gobeshona Foundation (KGF) is a strategic partner and co-investor with ACIAR in Bangladesh, which has made major research and capacity building investments in partnership with ACIAR since 2015. In 2015, ACIAR signed an MoU with KGF, and the partnership was renewed in 2021, for another 5 years. The principle underpinning the agreement is that international collaboration is critical to finding solutions to problems related to agricultural productivity in Bangladesh. The agreement strives for partnerships with national agricultural research systems, universities, NGOs (Sushilan and RDRS) and other national and international organisations, including CGIAR. The Bangladesh Agriculture Research Council is nominated as the coordinating body.

Country priorities

Despite recent and significant accomplishments, the agriculture sector in Bangladesh faces many challenges, such as climate vulnerability, elevated food demand, increased high-value crop demand, high yield gap, low input efficiency, degrading natural resource base, poor agroprocessing, and limited climate-resilient and nutrient-dense technologies. These challenges warrant investment in sustainable technological innovation and expansion. The sustainable development of the agriculture sector and the wellbeing of farming communities is of the highest priority for the national government. Key agricultural production challenges are common to many countries of South Asia, and ACIAR plays a role in strengthening regional research linkages between Bangladesh and other countries, particularly India (Bihar and West Bengal states) and Nepal (eastern Terai region).

The key priorities for Bangladesh, based on its National Agriculture Policy 2018, that align with ACIAR objectives are:

- » diversification of crops, including production of high-value crops
- » development and promotion of stress-tolerant, disease-resistant and nutritious crop varieties
- » improvement of crop production systems for market-oriented agriculture

- » building national capacity in innovation
- » extension of technologies to increase overall productivity growth and reduce the difference between research farm and field-level yields.

In 2019, through a series of in-country consultations between ACIAR and a wide range of key partner agencies and individuals, ACIAR and Bangladesh reaffirmed the ongoing relevance of these research priorities, and established the ACIAR–Bangladesh 10-year Collaboration Strategy 2021–2030. This strategy outlines the agreed priorities for research collaboration between ACIAR and Bangladesh over the period 2020–2029 and reaffirms the importance of building research capacity development through research projects addressing these priorities, including through post-graduate study opportunities.

In Bangladesh, ACIAR works with Australian and in-country partners and focuses on natural resource management (soil and water) in farming systems of north, north-west and coastal Bangladesh with an emphasis on developing climate change adaptation strategies and capacity development.

2024–25 research program

In 2024–25, ACIAR supports 15 agricultural research-for-development projects in Bangladesh, 8 of which are specific to this country and the remainder are part of regional projects.

The projects address the high-level objectives outlined in the ACIAR 10-Year Strategy 2018–2027, as well as specific issues and opportunities identified by partner countries and ACIAR.

All research investments have the underlying goal of contributing to:

- » agrifood systems and rural communities resilient to the impacts to climate change
- » equitable research benefits and outcomes for all community members
- » increased scientific and policy capability of individuals and partner institutions.

Regional Manager, South Asia

Dr Pratibha Singh

Research Program Managers

Visit [aciarc.gov.au](https://www.aciar.gov.au) for contact details

Current and proposed projects in Bangladesh, 2024–25

Program	Project title & code	Country	Start	End	Total investment
Crops					
	International Mungbean Improvement Network (Phase 2) CROP/2019/144	Bangladesh, India, Indonesia, Kenya, Myanmar	01/07/20	30/06/25	A\$2,257,184
	Managing wheat blast in Bangladesh: identification and introgression of wheat blast resistance for rapid varietal development and dissemination CROP/2020/165	Bangladesh	01/11/21	30/06/26	A\$1,500,000
	Accelerating genetic gain in wheat through hybrid breeding in Bangladesh, Ethiopia and Pakistan CROP/2020/167	Bangladesh, Ethiopia, Pakistan	01/12/21	30/06/26	A\$2,311,970
	Additive intercropping in wide row crops for resilient crop production in Bangladesh, Bhutan and India CROP/2022/111	Bangladesh, India	01/06/23	30/06/28	A\$2,842,648
	Nitrogen fertiliser use in Bangladesh: scoping research opportunities for higher efficiency CROP/2024/103	Bangladesh	15/03/24	15/09/25	A\$349,758
Forestry					
	Bangladesh Sundarban ecosystem management project FST/2022/123	Bangladesh	15/12/24	14/12/29	A\$2,933,018
	Resource dependency in the Sundarban Ecologically Critical Area FST/2023/177	Bangladesh	26/06/23	14/06/25	A\$226,982
Livestock Systems					
	Indo-Pacific Initiative for Sustainable Animal Health Cooperation LS/2022/143	Bangladesh, Kenya, Philippines, Vietnam	01/01/24	30/06/27	A\$1,400,000
Soil & Land Management					
	Developing and translating soil health information in Bangladesh with farmers and for farmers to build resilient agricultural systems SLAM/2021/107	Bangladesh	10/06/24	31/05/29	A\$1,200,097
	Change in soil and water dynamics and supporting adoption of conservation agriculture in Bangladesh SLAM/2022/101	Bangladesh	26/09/24	30/04/29	A\$3,312,252
	Assessment of the adoption and adaptation of conservation agriculture and direct seeded rice in South and Southeast Asia SLAM/2022/172	Bangladesh, Cambodia, India, Laos, Philippines, Vietnam	19/12/22	31/03/25	A\$357,424
Water					
	Cropping system intensification in the salt-affected coastal zones of Bangladesh and West Bengal, India LWR/2014/073	Bangladesh, India	01/11/15	30/06/26	A\$5,556,589
	Transforming smallholder food systems in the Eastern Gangetic Plain WAC/2020/148	Bangladesh, India, Nepal	01/10/21	30/09/26	A\$4,693,755
	Current and projected hydrological trends in the Sundarbans mangrove forest and their impacts on ecology and ecosystem services: a scoping study WAC/2022/129	Bangladesh	01/01/24	30/06/25	A\$250,000
	Paribartan: participatory action research on locally led iterative learning and inclusive business models for adaptive transformation in Bangladesh polders CLIM/2021/137	Bangladesh	21/08/23	31/12/27	A\$3,115,808

Note: Additional projects may be commissioned during 2024–25.



More information about our projects is available on the ACIAR website. Search for the project title or project code.

www.aciar.gov.au