

CIMMYT and PAKISTAN: 60 years of collaboration



CIMMYT staff and partners survey wheat rust in Pakistan.

CIMMYT has a long history of collaboration with Pakistan and has played a vital role in improving its food security. Through an effective partnership between CIMMYT and the Pakistan Agricultural Research Council (PARC), more than 70% of current wheat varieties grown in Pakistan come either directly from CIMMYT selections or Pakistani cross-breeding programs and

at least 50% of improved maize varieties are derived from joint CIMMYT-Pakistani research.

With the support of the Government of Pakistan, CIMMYT is committed to working with Pakistani national programs throughout the country to enable resource-poor farmers to improve their livelihoods.

At a glance

- More than **174 Pakistani scientists** trained by CIMMYT since 1961.
- CIMMYT-Pakistan collaboration led to the development of **Mexi-Pak**, Pakistan's most popular wheat variety.
- More than **70% of wheat** grown is a result of Pakistani/CIMMYT collaboration.
- **50% of improved maize** varieties grown in Pakistan are derived from joint Pakistan-CIMMYT breeding research.
- A **free exchange** of germplasm between CIMMYT and Pakistani scientists.
- In late 1990s-early 2000s, with CIMMYT support, Pakistani researchers launched **conservation agriculture** in South Asia.
- CIMMYT has offices in **Islamabad** and **Faisalabad**.

A history of collaboration

In the early 1960s Pakistan was in the midst of a food crisis and was on the brink of famine and mass starvation. Miles away in Mexico a young scientist and CIMMYT's first Pakistani trainee, (later Director General of the Agricultural Research Institute, Punjab), was working with CIMMYT scientists to develop Mexi-Pak, a high-yielding wheat variety. The variety was a success. By 1966, Pakistan was importing 41,000 tons of Mexi-Pak seed from Mexico – which at the time was the largest seed purchase in the history of agriculture. Only two years later, Pakistani farmers harvested 7 million tons of wheat, making it the first country in Asia to achieve self-sufficiency in wheat. Mexi-Pak would eventually become Pakistan's most popular wheat variety.



Dr. Norman Borlaug visits the Wheat Research Institute, AARI, Faisalabad, Pakistan; with Dr. Bajwa and Mr. Noor Muhammad, the first two Pakistani scientists who received training at CIMMYT, Mexico, in 1961-62.

Highlights of current initiatives

Pakistan Agricultural Innovation Program (AIP)

Key aims:

- To expand the use and adoption of modern technologies in Pakistan's agriculture sector.
- To develop conservation agriculture systems.
- To build confidence in maize hybrid varieties and ensure the rapid diffusion of high-yielding, rust resistant wheat varieties.

AIP is a four-year (2016-2019), \$30 million project funded by the U.S. Agency for International Development (USAID). This unique program brings together CIMMYT, the International Livestock Research Institute (ILRI), the World Vegetable Center (AVDRC), the International Rice Research Institute (IRRI) and the University of California-Davis to address a wider agricultural expertise base – cereals, cereal systems, livestock, vegetables and fruit trees.



A Pakistani farmer during harvest.



Developing and testing rust-resistant wheat varieties.

Pakistani Wheat Productivity Enhancement Project (WPEP)



Key aims:

- To develop wheat varieties that are resistant to Ug-99 stem rust.
- To improve agronomic practices and foster seed multiplication and distribution.
- To strengthen national and provincial agricultural research systems.

Funded by the United States Department of Agriculture (USDA) and in collaboration with PARC, WPEP is protecting and enhancing the productivity of wheat in Pakistan, with particular emphasis on wheat rusts. The project also is strengthening Pakistan's own wheat rust surveillance, linking it with international rust surveillance efforts. The first Ug99-resistant variety (NARC 2011) – a rust-resistant wheat variety introduced by CIMMYT – was selected and released in Pakistan.

Heat Tolerant Maize for Asia (HTMA)

Funded by USAID's Feed the Future initiative, CIMMYT is working with the Maize and Millet Research Institute (MMRI) in the Punjab region of Pakistan to develop heat-tolerant maize. The project is a model of public-private partnerships – bringing together CIMMYT's expertise in stress-tolerant maize, the technical expertise of Purdue University and Pioneer Hi-Bred, and PARC's seed production capacity and links with farming communities.



A street vendor sells delicious maize.

Contact:

Dr. M. Imtiaz

Chief of Party, AIP, and CIMMYT
Country Representative for Pakistan
Tel: +92 519255522-24 • Email: m.imtiaz@cgiar.org
CIMMYT - Pakistan office
CSI Building, NARC
Park Road, Islamabad, Pakistan 44000