

Collaborating closely with partners to advance agricultural research and innovation towards a more productive, inclusive and environmentally sound agrifood system.

CIMMYT's efforts in Zimbabwe support the Zimbabwe Vision 2030, aligning with key policies like the Comprehensive Agricultural Policy Framework, NDS1, National Agriculture Policy Framework 2019 to 2030 and the National Strategy and Action Plan on Plant Genetic Resources for Food and Agriculture. These initiatives complement the Strategic Plan for the Agricultural and Rural Development Authority, promoting climate-smart Conservation Agriculture practices in harmony with the national Pfumvudza/Intwasa scheme for sustainable agricultural development.

CIMMYT works hand in hand with the national government of Zimbabwe through the Ministry of Lands, Agriculture, Fisheries, Water, Climate, and Rural Development, specifically its Department of Research and Specialist Services. This also extends to local Universities, including the University of Zimbabwe, Marondera University of Science and Technology and Chinhoyi University.

This strong partnership has allowed CIMMYT to align its efforts with national priorities and work towards the common goal of food and nutrition security for the people of Zimbabwe.



At a Glance

About Zimbabwe



- The agricultural sector is a major component of total value added (agriculture generates 11.6% of GDP), the largest employer (A third of Zimbabwe's labor force is employed in agriculture), and the country's second largest source of export earnings.
- Maize is the most important food crop
- Climate-induced risks have reduced productivity and increased vulnerability. Over the past decade half of the main growing seasons were characterized with below average rainfall including two severe El Niño events in the 2015/2016, and 2023/2024 seasons causing droughts.

About CIMMYT

- CIMMYT has had an official presence in Zimbabwe since 1985, when the maize research station was established.
- CIMMYT is a key partner to NARES, major donors and NGOs in the country, through collaborative efforts to combat crop production challenges.
- Areas of collaboration include breeding climate resilient maize varieties, strengthening resilience through sustainable climate-smart agricultural practices, appropriate scale mechanization, and providing information to policy makers.

Impact in Numbers

- >35,000MT of certified seed of stress tolerant maize varieties, with more than 40% having CIMMYT genetics, produced in 2023,
- 4,129 new genetics to provide new sources of resistance to climate change and emerging threats introduced to Zimbabwe through the Government of Zimbabwe/CIMMYT maize quarantine facility
- 79 unique maize hybrids licensed to 20 partners, including 16 private sector, 2 parastatals, and 2 public institutions
- 5 pro-vitamin A maize hybrids with up 12ppm vitamin A content released.
- 52 local mechanization service providers established in Zimbabwe and Zambia
- More than 240 peer-reviewed journal articles published during the last 3 years by CIMMYT southern Africa scientists, which have been cited almost 3000 times. Publications ranged from topics around ecosystem services and agro-ecology, nutrition and health, breeding efficiency and novel tools to climate smart agriculture and intercropping.

Highlights

Breeding

CIMMYT is continuously enhancing maize breeding across Zimbabwe through extensive outreach activities at the Harare breeding Hub for southern Africa and key research stations throughout the country and managed by NARS (Chiredzi, Chisumbanje and Muzarabani research stations, Gwebi Variety Testing Centre, Domboshawa Training Centre) and private partners (Rattray Arnold and Kadoma research stations research stations, Henderson research station, Devonia farm, ART Farm). These efforts focus on developing resilient, high-yielding crop varieties, ensuring food security, and boosting agricultural productivity by leveraging advanced breeding techniques and extensive field trials.

Conservation Agriculture and Appropriate scale mechanization

CIMMYT has worked for 20 years on research and promotion of Conservation Agriculture technologies and mechanization is integral to its efforts, significantly reducing labor, boosting productivity, and enhancing food security. CIMMYT has recently implemented an approach using

service providers, equipping nearly 100 farmers with appropriate machinery, including 2-wheel tractors, rippers, multi-crop threshers, chopper grinders, peanut butter makers and basin diggers. Other rainfed farm families have benefitted from animal traction Conservation Agriculture Systems, crop-diversification and sustainable intensification of current farming systems. These approaches foster agriculture modernization and improve agricultural productivity and production across communities. Together, the Agronomy team as reached more than 50,000 farmers in the last two decades with new practices and approaches.

Socioeconomics

Embedded in several projects, the socioeconomic unit is the pulse of the different innovations developed by CIMMYT, assessing adoption, diffusion and impacts of innovations, while analysing value chains, business models and policies. Over the last three years, the unit completed four household surveys on sustainable intensification and mechanization in over 12 districts, revealing increased adoption of sustainable practices despite persistent barriers, and increased uptake of mechanization benefiting farmers. The unit also completed two business model assessments, more than 10 value chain analyses and a mechanization value chain and needs assessment to inform the Feed the Future Mechanization and Extension Activity.



“CIMMYT has a long history of working with local partners in Zimbabwe. Together with these partners, we work to improve the livelihoods and resilience of smallholder farmers, through innovations we develop like stress resilient maize or wheat varieties, together with conservation agriculture technologies.”

- Mainassara Zaman-Allah, CIMMYT Zimbabwe Country representative.

CIMMYT at Zimbabwe Agricultural Show

Established in 1895, the Zimbabwe Agricultural Show is the nation's oldest agricultural, commercial, and industrial event. CIMMYT frequently participates, leveraging the platform to share research findings, exchange knowledge, and foster collaborations with farmers, policymakers, and stakeholders, thereby enhancing Zimbabwe's agricultural sector.



Current Projects

Accelerating Genetic Gains in Maize and Wheat (AGG)

Brings together partners in the global science community and in national agricultural research and extension systems to accelerate the development of higher-yielding varieties of maize and wheat – two of the world's most important staple crops.

Feed the Future Mechanization and Extension Activity

Aims to improve smallholder farmers' access to farm power and machinery in Manicaland and Masvingo provinces to boost land and labor productivity. Targets to benefit 150 service providers and build the capacity of 30 rural mechanics and 30 technicians.

Livestock Production Systems in Zimbabwe (LIPS-Zim)

Centered around empowering over 5,000 smallholder farmers across 10 districts with climate-smart innovations seeking to enhance feed production and improve livestock disease control to enhance resilience and productivity.

On-farm-Maize Select

In collaboration with over 300 farmers in Zimbabwe, the CIMMYT-NARES maize breeding network conducts extensive on-farm trials to support a new genomics-driven selection method based on on-farm performance of early-stage maize breeding materials that is expected to deliver increased rates of genetic gain to smallholder farmers.

Evaluating Agro-ecological Management Options for Fall Armyworm in Zimbabwe

Conducting research trials in 10 districts, with work reaching 9,000 beneficiaries by promoting sustainable practices that mitigate fall armyworm without relying on chemical pesticides. Established 15 farmer field schools as hubs of knowledge sharing.

CGIAR Initiative on Diversification in East and Southern Africa

Promoting climate-resilient agriculture by helping millions of smallholders in maize-based farming to intensify, diversify, and reduce risks, emphasizing gender and social inclusion through improved services and investments.

Resilience Building through agroecological intensification in Zimbabwe (RAIZ)

Supporting government in the development and implementation of scientifically tested agroecological approaches, which will enhance agricultural production and resilience to climate change in Zimbabwe. CIMMYT is working together with its partners to develop climate smart agroecological farming practices using organic fertilizer amendments along with conservation agriculture technologies along a gradient of increasing aridity in Murehwa and Mutoko districts.

Transformational Agroecology across food, land and water systems (CGIAR Initiative on Agroecology)

At the forefront of providing science-based evidence for the transformative nature of agroecology and its potential to bring about positive changes in food, land, and water systems, including identifying institutional innovations to promote uptake. Working with 200+ farmers and 4 service providers in Murehwa and Mbire districts in Zimbabwe as ambassadors of the community through agroecological landscapes (ALLs) since 2022.

International Maize Improvement Consortium for Africa (IMIC-Africa)

A public-private partnership designed to strengthen maize breeding programs in Africa, and thereby improve African farmers' access to high-quality, affordable, high-yielding and locally adapted maize seed.

Climate Change and Child Malnutrition in Zimbabwe: Evidence to Action

Focused on generating evidence to understand the effects of climate change on child malnutrition in rural Zimbabwe and co-develop mitigation strategies with communities that directly address the link between climate change and malnutrition.

Understanding and Enhancing Adoption of Conservation Agriculture in Smallholder Farming Systems of southern Africa (ACASA)

Aims at consolidating lessons learned and provide a pathway to scale Conservation Agriculture (CA) through extensive surveys in Malawi, Zambia, and Zimbabwe. The project fosters the next generation of research in social, crop, agronomic, and climate sciences, aiming to mainstream CA through fundamental shifts in farming

practices, markets, and social institutions, thereby promoting sustainable intensification of smallholder farming systems.

Zambuko Livelihoods Initiative

A resilience program focusing on mitigating the impact of climatic shocks by empowering local farmers with improved climate-smart technologies such as drought-tolerant seed paired with Conservation Agriculture, among others. Currently working with 40 mother trials, 200 baby trials and 31 registered service providers.



About CIMMYT

CIMMYT is a cutting edge, non-profit, international organization dedicated to solving tomorrow's problems today. It is entrusted with fostering improved quantity, quality, and dependability of production systems and basic cereals such as maize, wheat, triticale, sorghum, millets, and associated crops through applied agricultural science, particularly in the Global South, by building strong partnerships.

CIMMYT is a core CGIAR Research Center, a global research partnership for a food-secure future, dedicated to reducing poverty, enhancing food and nutrition security and improving natural resources.

Key NARS Partners

- Local Universities
- Department of Research and Specialist Services
- Agriculture Advisory and Rural Development Service
- Department of Agricultural, Technical and Extension Services
- Mwenezi Development Training Centre

Key Private Partners

- Seed companies: SeedCo, AgriSeeds, Mukushi Seeds, National Tested Seeds
- Farm and City,
- Super Fert
- Zimbabwe Agriculture Trust
- Intaba Trading, Sesame for Life and K2

Key Development Partners

- Bill and Melinda Gates Foundation (BMGF)
- United States Agency for International Development (USAID)
- Foundation for Food & Agriculture Research (FFAR)
- UN World Food Programme (WFP)
- Food and Agriculture Organization (FAO)
- European Union (EU)
- Swiss Agency for Development and Cooperation (SDC)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Australian Centre for International Agricultural Research (ACIAR)
- French Agricultural Research Centre for International Development (CIRAD)

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