



ICRISAT in

# Tanzania



## Country Overview

Tanzania is largely food secure and at times a commodity exporter, however, there are occasional food shortages at the regional, district and household levels. This is mainly due to dependence on rain-fed agriculture and limited use of modern farming techniques. **74%** of rural Tanzanians are engaged in agriculture while agriculture, only contributes to **28%** of the country's GDP. One in ten Tanzanians live below the food poverty line, and one in three children is chronically malnourished. Diets generally lack diversity, and nutritious diets remain unaffordable for the majority of households.

– WFP Tanzania Country Brief, 2022

The Tanzania Development Vision 2025 (TDV 2025) envisions food security for all. ICRISAT's value proposition over the next few years lies in contributing to the TDV 2025 through i) co-validation and scaling of agricultural innovative technologies ii) promoting participatory integrated watershed management strategies and iii) introducing new cropping systems while linking farmers to markets.



## Partnerships

ICRISAT's work in Tanzania started in 1977 with the posting of a sorghum breeder to Ilonga. Over the years, ICRISAT's research has expanded from dryland cereals (sorghum, pearl millet and finger millet) to include groundnut, chickpea and pigeonpea. Projects in Tanzania are implemented through the **Tanzanian Agricultural Research Institute (TARI)**, a semi-autonomous body under the Ministry of Agriculture which is responsible for all agricultural research activities conducted by the National Agricultural Research System (NARS).

**ICRISAT partners with numerous public and private sector bodies including:**

- The Department of Research and Development (DRD) and the Ministry of Agriculture and Food Security (MAFS) - Government of Tanzania
- Sokoine University of Agriculture (SUA) and its Bureau of Agricultural Consultancy and Advisory Services (BACAS)
- University of Dodoma
- Hombolo Agricultural Research Institute
- Tanzania Agricultural Research Institute (TARI)
- Naliendele Agricultural Research Institute (TARI Naliendele)
- The Dodoma Agriculture Seed Production Association (DASPA)
- Temnar Company Limited
- Lima Africa Company Limited
- Agriseed Technologies Limited



## Milestones

- **1983:** ICRISAT launches the Sorghum and Millets Improvement Program (SADC/ICRISAT-SMIP) which leads to the release of a number of sorghum and millet varieties in Tanzania.
- **2007 – 2019:** The Tropical Legumes project (TL II & III), increases the average annual amount of groundnut seed produced in the country from **125 tons** in the three-year period 2007–2010 to **3,700 tons** in 2016–2018. For pigeonpea, seed production improved from **69 tons/year** (2008–2010) to **357 tons/year** in 2012–2014. Production of improved chickpea seed also grew from **131 tons/year** in 2011 to **785 tons/year** in 2014.
- **2009 – 2013:** The Harnessing Opportunities for Productivity Enhancement of Sorghum and Millets (HOPE I and II) project focused on two major sorghum and finger millet producing areas with the development and release of a hybrid sorghum variety in 2014, being a key achievement.
- **2011 – 2015:** ICRISAT leads the development of a commercially sustainable multiple use sorghum value chain in Kenya and Tanzania, funded by the **International Fund for Agricultural Development (IFAD)**
- **2012 – 2016:** The Africa RISING project focused on the intensification of maize/sorghum/pearl millet-legume production. The ICRISAT-led phase I in Kongwa and Kiteto districts delivered fit for purpose agricultural production technologies for smallholder farmers.
- **2019:** A large-scale study analyzed consumption of pigeonpea, millet and sorghum. Finger millet and pigeonpea were tested in school feeding programs to improve dietary diversity and nutrition. The project was funded by **Australian Innovation eXchange of the Australian Department of Foreign Affairs and Trade.**
- **2017 – 2020:** The Strengthening Sorghum and Millet Value Chains for Food, Nutritional and Income Security in Arid and Semi-Arid Lands of Kenya and Tanzania (SOMNI) Project was funded by **IFAD.**
- **2015 – 2021:** The Accelerated Value Chain Development of Drought Tolerant Crops (AVCD-DTC) funded by **Feed the Future** sustained the impact of the Tropical Legumes Project. In 2019, a Seed Revolving Fund initiative was launched to improve access to quality seeds in rural regions.

## Ongoing Projects

- Enabling a resilient and prosperous community through participatory agroecological practices in the semi-arid region of central Tanzania
- Transforming smallholder irrigation into profitable and self-sustaining systems in Southern Africa
- Harnessing genetic resources from sorghum and finger millet for increased productivity and utilization in the arid and semi-arid regions of East Africa (Kenya, Tanzania and Uganda)
- Safeguarding crop diversity for food security using finger millet.



## Key Outcomes



- **6** Sorghum varieties
- **2** Pearl millet varieties
- **4** Chickpea varieties
- **7** Pigeonpea varieties
- **14** Groundnut varieties



In 2016, the groundnut variety 'Naliendele' resistant to rosette disease was introduced replacing 40-year-old varieties.

### Skills Transfer

ICRISAT has provided training for technicians from the ARI-Hombolo and Sokoine University of Agriculture (SUA) to use aflatoxin test kits and assisted the SUA in building aflatoxin detection capacity. The centers currently test crop samples for aflatoxin contamination and urine samples for aflatoxin biomarkers.

### Seed Systems

About **3,797 tons** of seeds (as of 2021) were produced and distributed to strengthen seed systems. ICRISAT is working with private seed companies to enhance the production, promotion, marketing and adoption of new high-yielding varieties of groundnut and sorghum in the country.