



ICRISAT in

# Niger



## Country Overview

Niger is a landlocked country in West Africa with an economy that centers on subsistence crops, livestock, and some large uranium deposits.

In 1981, ICRISAT and the Government of Niger signed an agreement to set up the ICRISAT Sahelian Center on a 500-hectare site in Sadoré. The Center, inaugurated in 1989, has leading research facilities – laboratories for soil and plant analysis, crop physiology/ biotechnology, aflatoxin analysis, millet genetics and entomology.

The regional genebank in Niger conserves over 47,103 accessions of 36 species. The **Agro-innovation Business Center at Sadoré**, a joint initiative between ICRISAT and the Government of Niger, hosts startups and provides SME acceleration and incubation services.



## Partnerships

Institut National de Recherche Agronomique du Niger (INRAN) is the apex body for the coordination of all agricultural research activities in Niger. ICRISAT, in

collaboration with INRAN and partners, including The Faculty of Agronomy, Abdou Moumouni University and the Institut Pratique de Développement Rural (IPDR), has invested in the genetic resources conservation, the development of new varieties and natural resources management.

Producer organizations such as the Réseau national des Chambres d'Agriculture du Niger (RECA), Le Collectif des Associations Pastorales du Niger (CAPAN), and the Federations of Niger's Farmers' Unions (Moriben and Fumagaskia) have been key partners in the implementation of projects.

Regional organizations such as The Permanent Interstate Committee for Drought Control in the Sahel (CILSS), Alliance for a Green Revolution in Africa (AGRA), The African Union, particularly, its Department of Rural Economy and Agriculture and New Partnership For Africa's Development (NEPAD), The Comprehensive Africa Agriculture Development Programme (CAADP), The Economic Community of West African States (ECOWAS), The West African Monetary and Economic Union and West and Central African Council for Agricultural Research and Development (CORAF/ WECARD) are some key collaborators.



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## Milestones

ICRISAT Niger has developed and led numerous initiatives including the African Market Garden, the Sahelian Ecofarm, bio-reclamation of degraded land, the collection and conservation of plant genetic resources, crop improvement and diversification, natural resources management, soil fertility improvement and capacity building of stakeholders, with a special focus on women.

- **2007 - 2019:** The twelve year **Tropical Legumes Project** provided improved varieties of seeds and developed a sustainable seed system to enhance the source of income for smallholder farmers.

ICRISAT coordinated groundnut production training for over **1,100 farmers** in Niger (**85% women**) including training **44** extension agents in Integrated Crop Management and aflatoxin management. As a result, the average annual production of improved groundnut increased from an average of 19 tons/year (2007–2009) to **393 tons/year** (2012–2014).

- **2018 - 2020:** The project **Enabling Value Chains to Create Sustainable Income for Vulnerable People in Crop-Livestock Systems of Burkina Faso and Niger** funded by **Feed the Future Innovation Lab for Livestock Systems (USAID)** transformed unsustainable and unproductive food systems to become more profitable. The project resulted in improved access to feed for livestock farmers at a 30% average lower price than the market price.

- **2019 - 2021:** ICRISAT delivered **low glycaemic index (GI) pearl millet grains** to address **type-2 diabetes** in select African regions. The project was funded by the **Department for International Development (DFID), Government of UK, and The Global Challenges Research Fund (GCRF)** through **Innovate UK, Aberystwyth University**.

- **2018 - 2022:** The project **'Support Climate Smart Agriculture in Niger - Projet d'Appui à l'Agriculture Sensible aux risques Climatiques (PASEC)** implemented by the Government of Niger with support from The World Bank works to increase the use of agroforestry and conservation agriculture techniques to minimize climate and food insecurity risks; promote the recovery of degraded agro-sylvo pastoral land; watershed management and protection of water sources used for irrigation.

- **2019 - 2023:** The Project **Sorghum Adaptation in West Africa with a Genomics-Enabled Breeding Network (SAWAGEN)** spanned Senegal, Burkina Faso, Togo and Niger and worked to strengthen existing regional breeding networks for key crop improvement across the Sahel. The Project is funded by **USAID's Feed the Future Innovation Lab for Sorghum and Millet**.

- **2019 - 2023:** **Genetic Enhancement of Pearl Millet for Yield, Biotic and Abiotic Stress Tolerance in West Africa (GENMIL)** funded by **USAID**.

- **2019 - 2023:** The **USAID-funded project, Development of a Food Security Assistance Program (DFSA/GIRMA) under Catholic Relief Services (CRS)**, was initiated to improve and sustain food and nutrition security while building resilience among poor households in Niger. The project included capacity development of 22 aspiring seed producers selected from 22 villages, to move to commercialization.



## Key Outcomes



- **2 Sorghum varieties:** One of the most popular sorghum varieties released was developed with ICRISAT's input (SEPON-82).
- **20 Pearl millet varieties:** The pearl millet OPVs released have yield gains of 20% over the local variety.
- **8 Groundnut varieties:** Feature grain yields of **1.7 to 3.5 T per ha**.

- ICRISAT facilitated the conservation and distribution of over **40,000 accessions** of germplasm to national partners.
- Bio-reclamation of Degraded Lands (BDL) projects benefited over 300 communities.
- More than **25,000** smallholder farmers have been shown micro-dosing techniques, resulting in millet grain yields as high as 900 kg/ha on average.
- Over 900 African Market Gardens have been implemented by ICRISAT and partners.
- Over **150 varieties** of leafy vegetable and fruit trees have been introduced through ICRISAT.