# Enhancing Genebank Data Management in SADC

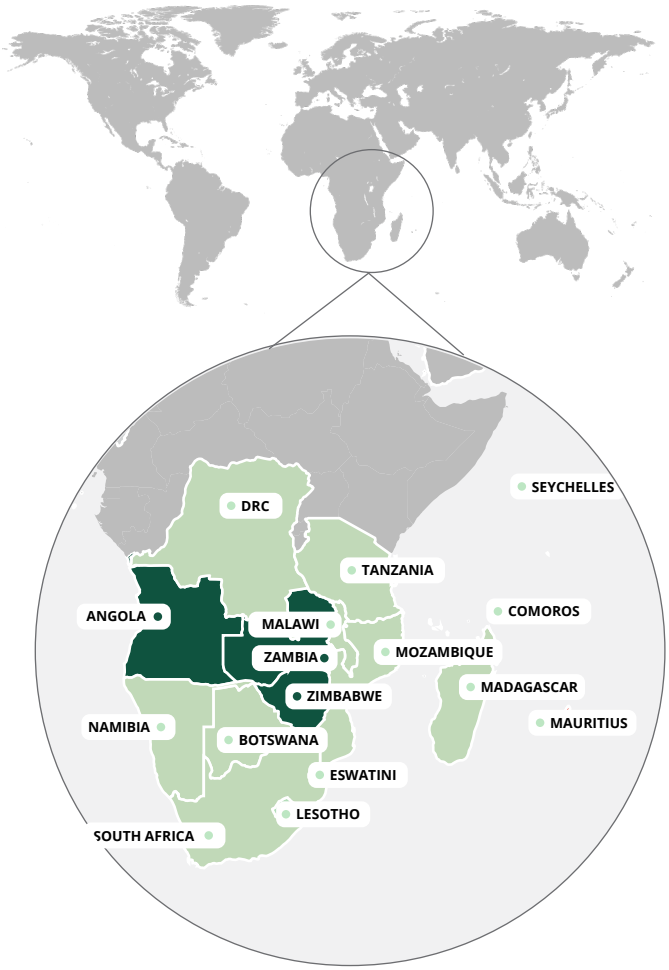
Effective data management is vital for the conservation and use of plant genetic resources for food and agriculture. The SADC Plant Genetic Resources Centre (SPGRC) and 15 national plant genetic resources centers of the Southern African Development Community (SADC) form the SADC Plant Genetic Resource Network. They manage the collection and conservation, and facilitate the use, of plant genetic resources throughout Southern Africa.

Genebanks in the Southern African network record information in SDIS, a database developed by SPGRC since 2010. However, modernization of SDIS is needed, particularly to barcode samples and integrate with the Global Information System (GLIS), including Genesys, Easy-SMTA and the GLIS DOI registry.

To address these needs, SPGRC and the national genebanks of Angola, Zambia and Zimbabwe are evaluating GRIN-Global Community Edition (GGCE) as a solution to power their SDIS information system. GGCE is freely available open-source software for managing genebank collections. It is developed by the Crop Trust in collaboration with international and national genebanks. You can find more information about GGCE at https://ggce.genesys-pgr.org.

## Objectives

The goal of this project is to evaluate GGCE at the four project partner genebanks. The results of the evaluation will be presented to the SADC Plant Genetic Resource Network as a whole. Their endorsement of GGCE would pave the way to improving genebank data management across Southern Africa.




*SADC Member states and project partners.*

## Activities

The project will deploy GGCE in the four partner genebanks, migrate existing data, equip genebanks with barcoding equipment, provide training, and facilitate the evaluation of the upgraded information system:

1. **Deployment and configuration of GGCE:** GGCE will be deployed and data migrated from existing systems at SPGRC and the three national genebanks.

2. **Equipment upgrade:** Label printers, barcode scanners, and electronic balances integrated with GGCE enable accurate and fast data capture and retrieval, critical for efficient data management in genebanks.

3. **Training and evaluation:** Training and support will build capacity within SPGRC and national genebanks, equipping them with the skills needed to adapt to technological advancements and advocate for GGCE adoption by the whole network.

4. **Consensus building:** Endorsement by the entire SADC Plant Genetic Resource Network of the upgrading of information systems as implemented in this project in the four partner genebanks enables its expansion to the rest of the genebank community in the region.

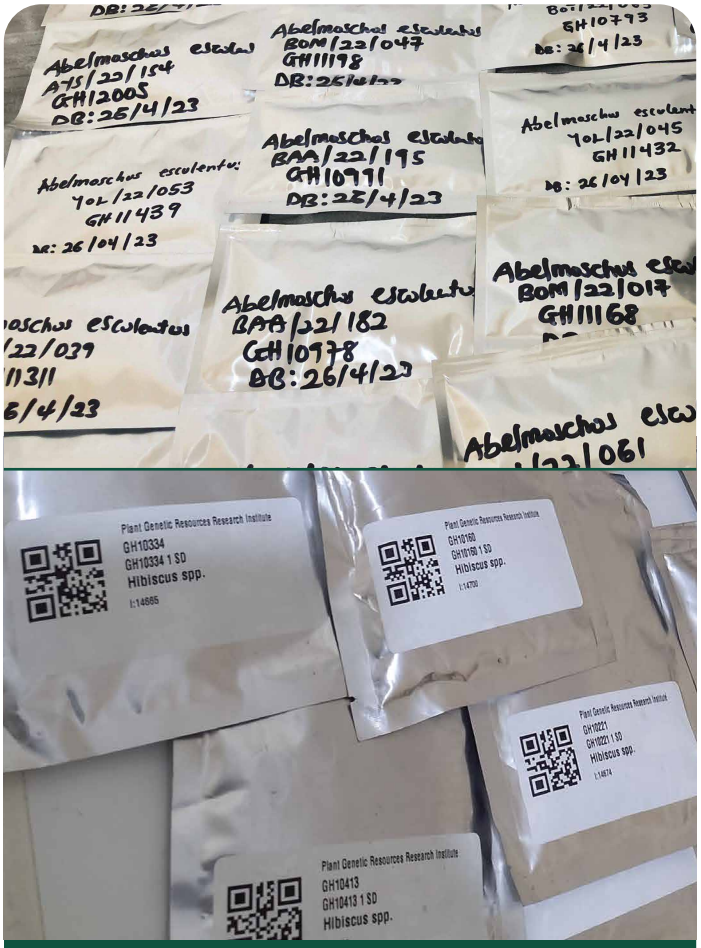
## Impact

1. **Improved data management:** Comprehensive training and hands-on support will provide a deeper understanding of GGCE to enhance data management practices and support well-informed conservation decisions, leading to increased efficiency and effectiveness in management of the collections.

2. **Increased access to information:** Data exchange between GGCE and the Global Information System of the International Plant Treaty (Genesys, GLIS DOI registry, Easy-SMTA, WIEWS, etc.) enables researchers and breeders to efficiently retrieve and analyze information about crop diversity available in the region.

## Project facts

- **Timeline:** December 2024 to June 2025
- **Budget:** 110,200 EUR
- **Donor:** Bundesministerium für Ernährung und Landwirtschaft (BMEL)
- **Beneficiaries:** SADC Plant Genetic Resources Centre and national plant genetic resources centers of Angola, Zambia, and Zimbabwe
- **Contact information:** Matija Obreza, Head of Genebank Information Systems, Global Crop Diversity Trust, matija.obreza@croptrust.org
- **Project reference:** GenR 2024-4




*From informal records to systematic management: GGCE enables genebanks to transition from handwritten labels (top) to standardized, barcoded packaging for efficient cataloging (bottom).*

Bundesministerium für Ernährung und Landwirtschaft

*Scan for more information about GGCE:*