



# Overview of EU-ACP In situ Conservation of Crop Wild Relatives in SADC Region

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# Profile of SADC Crop Wild Relative

In situ Conservation and Use of Crop Wild Relatives in three ACP countries of SADC Region – (Short Name - SADC Crop Wild Relatives)



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'In situ conservation and use of crop wild relatives in three ACP countries of the SADC region' (short name - SADC Crop Wild Relatives) is a three-year project (2014-2016) co-funded by the European Union and implemented through the ACP-EU Co-operation Programme in Science and Technology (S&T II) by the ACP Group of States. Grant agreement no. FED/2013/330-210.



# The challenge

- CWR are neglected and threatened in the wild
- Importance of CWR is not well recognised
- Not taken into account in environmental policy planning
- Identification of useful traits within CWR



# CWR – Research needed

- Increased collection and ex situ conservation of CWR?
- Prioritization of areas for in situ conservation CWR for genetic reserves
- What adaptive traits are present within in situ populations?
- To what extent are gene flow and introgression happening from CWR?



# Objectives of SADC CWR project

*Overall objective:*

**Enhance link between conservation and use of CWR** in three ACP countries within the SADC region, as a means of underpinning regional food security and mitigating the predicted adverse impact of climate change

*Specific objectives:*

- **Enhance the scientific capacities** within the partner countries to conserve CWR and identify useful potential traits for use to adapt to climate change.
- **Develop exemplar National Strategic Action Plans** for the conservation and use of CWR in the face of the challenges of climate change across the SADC region

# CWR in partner countries

- No systematic, coordinated inventories or surveys of CWR.
- High endemic diversity of plants species, including CWR:
  - caffeine-free coffee - Mauritius
  - 2248 taxa based on food crops— S. Africa
  - Many CWR of rice, cowpea, sorghum, cucurbits, kenaf and sesame in Zambia
- Very limited use locally in crop improvement programmes



# Work packages

- 1: **Improving national capacities** in the three ACP countries of SADC region on conservation and use of CWR
- 2: **Science, technology and innovation tools** for in situ conservation and use of CWR are deployed and tested in three ACP countries of SADC
- 3: **National Strategic Action Plans**, supported by information systems, for on in situ conservation and use of priority CWR
- 4: **Awareness raising** among national policymakers
- 5: **Project management** and governance

# Training Needs Assessment

- To assess capacities on in situ conservation and use of CWR in SADC region
- Survey was carried out in each 3 partner countries as well as SAD Cregion - SPGRC
- Two thematic regional training workshops:
  - In situ conservation of CWR and diversity assessment techniques
  - Predictive characterisation and prebreeding

## Key findings :

- List of stakeholders
- Expertise on CWR
- Taxonomy
- Climate change modelling
- Ecogeographical survey
- GIS
- Seed handling
- Data management and analysis
- Lack of policies on CWR



# Regional training workshop on in situ conservation of CWR, Mauritius November 2015

- 26 participants from 14 SADC countries

## AIM:

- Creating CWR checklists and inventories
- Prioritization of CWR for conservation
- Conservation status assessment of priority CWR
- Plans for implementation of conservation priorities
- Relevant policy for the conservation of CWR



# Work package 2

**Science, technology and innovation tools** for in situ conservation and use of CWR are deployed and tested in three ACP countries of SADC

## **Activities:**

**2.1: Develop science, technology and innovation toolkits** for the conservation and use of CWR : promote the use of the FAO resource book for preparation of National plans for conservation of CWR and Land races

**2.2: Pilot test the draft tailor-cut toolkits** in each participating partner country

**2.3: Publish and distribute** widely the CWR toolkits, as a web enabled tool.

# Work package 3

Draft **National Strategic Action Plans**, supported by information systems, for on in situ conservation and use of priority CWR

## Activities:

**3.1: Compile baseline information on diversity, conservation status and threat of targeted CWR** in the three partner countries (including CWR inventory, ecogeographic survey, genetic diversity, collection of georeferenced data, database) into web-accessible national registries, with linkages to the global Crop Wild Relatives web portal

**3.2: Identify regional and national *in situ* CWR hotspots and priority sites** for *in situ* conservation and *ex situ* collection validated through expert interviews and field visits using innovative GIS technology

## Work package 3

**National Strategic Action Plans**, supported by information systems, for on in situ conservation and use of priority CWR

### **Activities:**

**3.3: Predict which CWR in situ populations and materials from ex situ collections have traits adapted to extreme climate conditions** (e.g. heat, drought) using Focused Identification of Germplasm Strategy (FIGS) or other GIS approaches

**3.4: Develop exemplar Strategic Action Plans (SAP)** on in situ conservation and use of priority CWR in three participating countries



## Work package 4

**Awareness raising** among national policymakers

**Activities:**

**4.1: Facilitate the mainstreaming of CWR SAP** into national and regional policies

**4.2: Develop a range of communication and public awareness materials** to promote the conservation and use of CWR among target groups of stakeholders including the general public



Thank you

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