

In Situ Conservation and Use of Crop Wild Relatives in three ACP countries of the Southern African Development Community (SADC) region

What are Crop Wild Relatives (CWR)?

Wild plant species closely related to crops that are a potential source of genes and adaptive traits useful to make crop more nutritious, resistant to pests and diseases, and adapted to harsh climatic conditions.

Project objectives

- Enhance the **scientific capacities** in SADC to conserve CWR and identify useful potential traits to adapt to climate change.
- Develop National Strategic Action Plans (**NSAP**) for the conservation and use of CWR in partner countries.

Beneficiaries reached as of June 2016

Beneficiaries	Female	Male
Scientists	63	120
Breeders	4	12
Policymakers	41	93
Communication specialists	2	3
Farmers	202	309

Table 1

Country/Region	CWR taxa in checklist	Priority CWR taxa	Type of crops considered
Mauritius/Rodrigues	528/142	13/10	all crops
South Africa	1593	258	food and fodder crops
Zambia	572	34	59 crops prioritized by national stakeholders
SADC	>1900	115	food and beverage crops

Table 2

	Mauritius/Rodrigues	South Africa	Zambia	SADC
Priority CWR-related crops	Mauritius: Coffee, fig, fonio, olive Rodrigues: Aloe, asparagus, fig, millets, olive, sweet potato	Cucumber, eggplant, melon, millets, rooibos, tea, sweet potato, yam, <i>et al.</i>	Cowpea, cucumber, eggplant, melon, millets, rice, sorghum, sweet potato, yam	Coffee, cowpea, eggplant, rice, sorghum, <i>et al.</i>

Capacity building

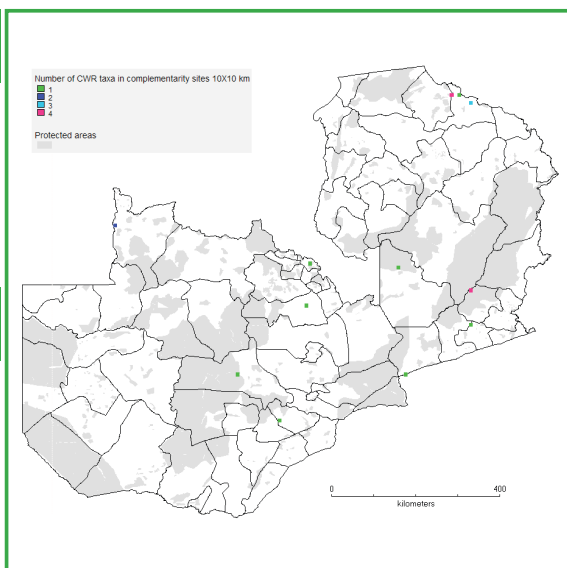
- 41 scientists from 14 SADC countries with a good gender balance trained on the *in situ* conservation techniques and/or use of CWR in pre-breeding programs.



- An online interactive toolkit has been developed for use in other countries to help them planning CWR conservation as well as producing NSAPs

Crop Wild Relatives diversity assessment and National Strategic Action Plans

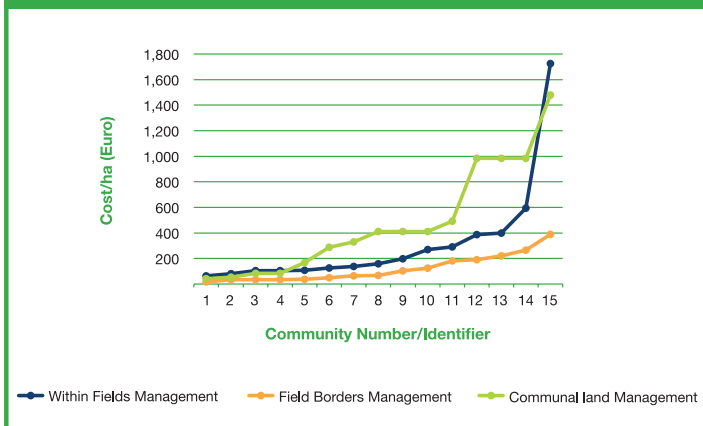
- National CWR checklists have been developed and priority CWR for action identified (table 1 and 2).
- Key CWR diversity sites have been identified within each country for inclusion in existing conservation actions and for expansion of protected area networks.
- NSAPs have been developed in each country for endorsement by their respective governments.



Applications of incentive mechanisms for on farm and *in situ* conservation of CWR

- Surveys of CWR on farm and on communal lands carried out in 26 local communities (15 distant from and 11 closer to game management areas) in Eastern and Muchinga provinces of Zambia.

Crop Wild Relative Management - Cost/ha by Land Type



- Community group conservation service offers potentially involving 3,208 farmers indicate willingness to participate in CWR management activities, Costs/hectare vary from 33 to 1,724 €/ha, with CWR-friendly management of crop borders being associated with the lowest opportunity costs for farmers.



Awareness on importance and conservation of CWR

- Eight side events/presentations at international conferences and meetings.
- Strong national stakeholder involvement in NSAP development in all three countries.

Contribution to overall objectives of EU Co-operation Programme in Science and Technology

- Project has helped to build and strengthen capacities on *in situ* conservation and use of CWR in SADC region.
- Technology transfer on the use of geographic information system tools for diversity assessment between Bioversity International/University of Birmingham and three ACP countries has helped to reduce the science and technology divide between them.

Impact

- Increased scientific capacity in SADC region (through workshops, online toolkit for CWR conservation planning and technical backstopping).
- Increased knowledge of CWR diversity in each country through checklist development and conservation planning.
- Identification of key CWR diversity sites within each country for inclusion in existing conservation actions and for expansion of protected area networks.
- Increased awareness on importance of CWR among stakeholders and governments.

Conclusions

The project has created great awareness on the importance of CWR not only within the three countries, but globally through the participation in side events at major international meetings.

Each country has prepared its National Strategy and Action Plan for endorsement by their respective governments. The project is a model for the creation of a network of CWR sites within the SADC region.

For further information, visit the project website www.cropwildrelatives.org/sadc-cwr-project/



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