In situ Conservation of Crop Wild Relatives in SADC Region – towards a regional CWR network

Ehsan Dulloo, Eve Allen, Prishnee Bissessur, Joana Magos Brehm, Hannes Gaisberger, Michelle Hammer, Yasmina Jaufeerally Fakim, Shelagh Kell, Jermina Matlou, Mpolokeng Mokoena, Nkat Maluleke, Graybill Munkombwe, Dickson Ng'uni, Livhuwani Nkuna, Domitilla Raimondo, Willem van Rensburg, Imke Thormann, Thabo Tjikana and Nigel Maxted

Multi-Stakeholder Dialogue Global network PGRFA, FAO, Rome, 6-7 June 2016

Wild Caffeine free *Coffea mauritiana* Lam.

CONTENT

- How your initiative is directly linked to in situ conservation and/or on-farm management? Which PGRFA and where?
- What kind of actors are involved and how network mechanisms support the initiative?
- What are its specificities that could serve a global network?
- How a global networking could help you in developing your activities and what could you provide to it?

How is your initiative is directly linked to in situ conservation and/or on-farm management? Which PGRFA and where?

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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ACP S&T PROGRAMME

UNIVERSITY OF BIRMINGHAM

University of Mauritius
www.uom.ac.mu | Reduit, Mauritius

ZARI
Zambia Agriculture Research Institute
Researching Soils, Crops and Water in Zambia

agriculture, forestry & fisheries
Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

'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.

Crop wild relatives

- Crop wild relatives (CWR) are wild plant species closely related to crops, including wild ancestors
- They have an indirect use as **gene donors for crop improvement**
- Increase crop production and quality
- Resistance to pests, diseases and environmental stresses - reduce use of pesticides and inputs
- Sustainable agriculture and resilience of agro ecosystem
- They are an important socio-economic resource that offer novel genetic diversity required to maintain future food security

What kind of actors are involved and how network mechanisms support the initiative?

Stakeholders

- Policy and decision makers – at national, district and local communities
- Agricultural and environmental scientists, (incl. Breeders , academics, protected areas)
- NGOs groups
- Local farming communities

What are its specificities that could serve a global network?

NSAP Approach

- The objective of the project is to develop exemplar National Strategic Action Plans for the conservation and use of CWR across the SADC region;
- Expected outcome is that each country would have identified a network of CWR sites that maximise in situ genetic diversity conservation for national and global priority CWR
- Focus on particular crop gene pools with global range using global priorities (= irrespective of political boundaries) on scientific basis
- Manage network of CWR sites as a coherent whole to maximize efficiency and sustainability

NATIONAL STRATEGIC ACTION PLANS FOR CWR CONSERVATION AND SUSTAINABLE USE

Compile baseline information on CWR diversity of CWR in the 3 countries (checklist, prioritization, ecogeographic survey)

Mauritius
South Africa
Zambia

Identify CWR hotspots and priority sites for *in situ* conservation and *ex situ* collection (diversity analysis)

Predict which CWR *in situ* populations and materials from *ex situ* collections have traits adapted to extreme climate conditions (predictive characterization)

Develop exemplar National Strategic Action Plans (NSAP) for the conservation and sustainable use of priority CWR in the 3 countries

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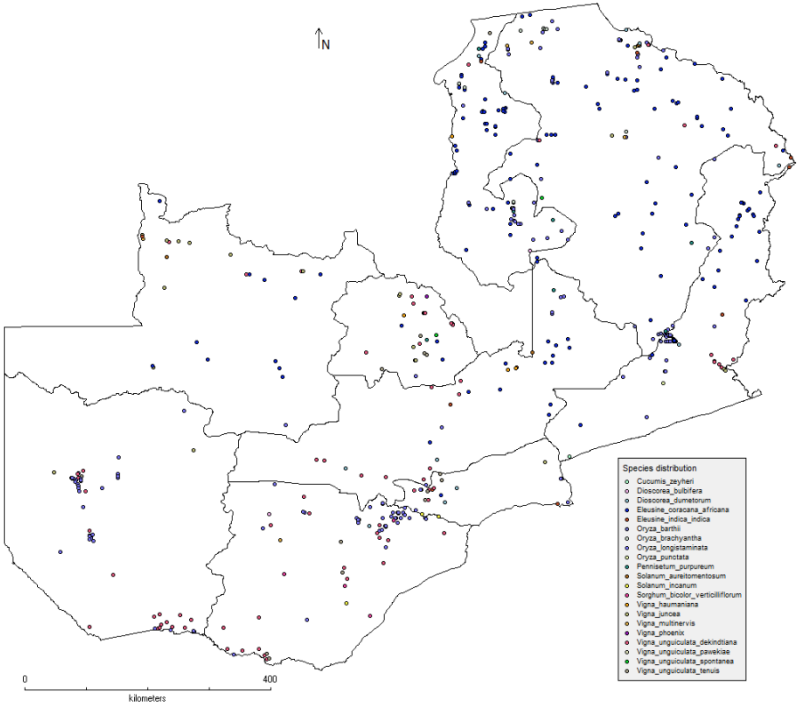
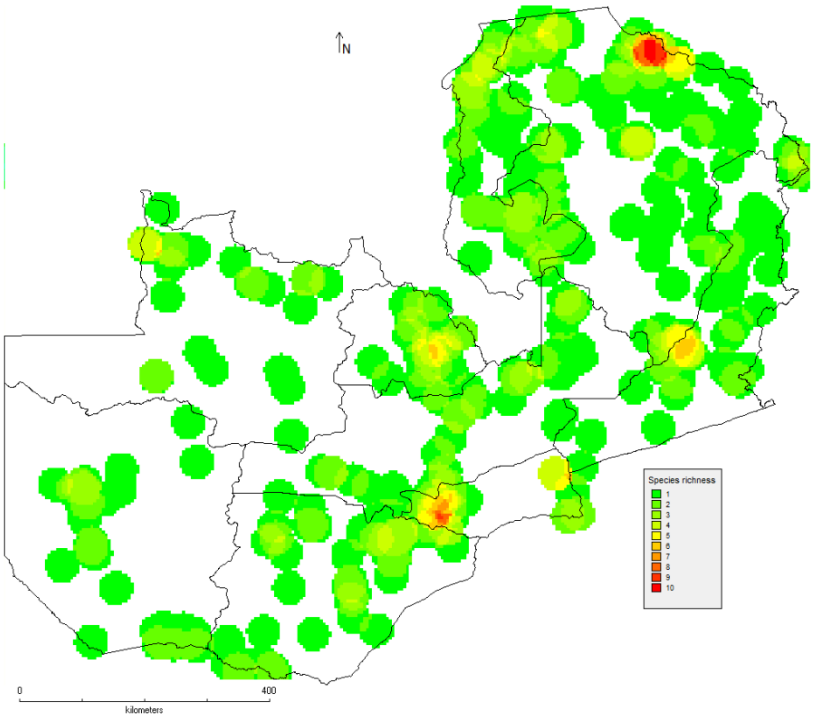
CWR DIVERSITY ANALYSIS ZAMBIA

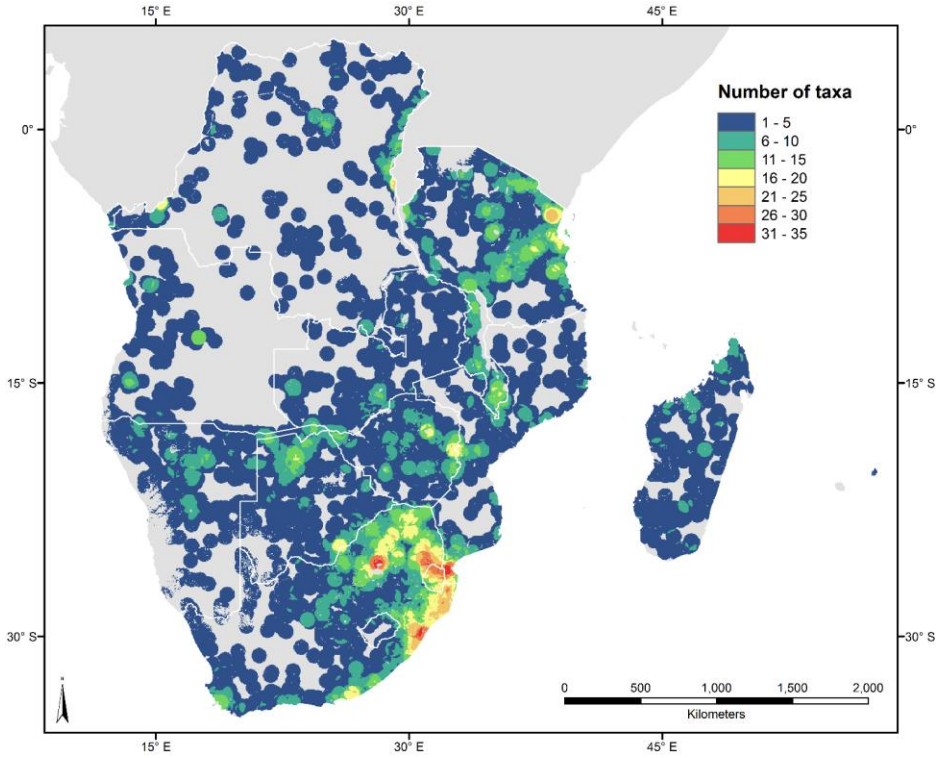
Taxa distribution

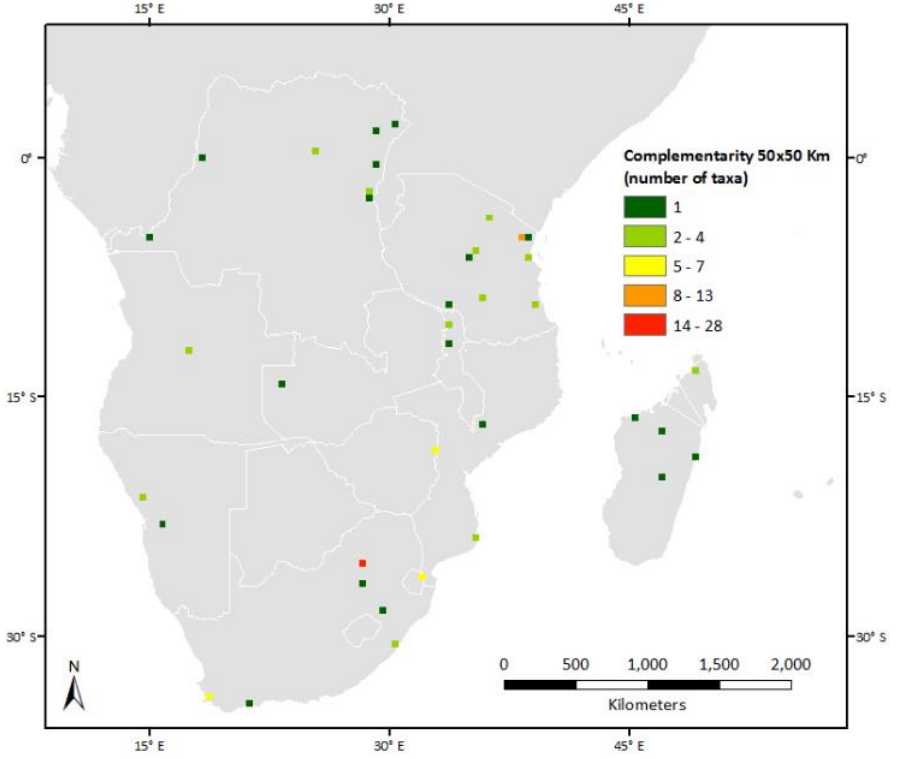


Observed taxa richness



CWR DIVERSITY ANALYSIS IN THE SADC REGION





Observed taxon richness [circular buffer of 50 km (CA50) around each occurrence point for all priority CWR]

Complementarity network:
38 grids (50 x 50 Km) in 11 countries cover 112 priority CWR (3 transboundaries)

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How a global networking could help you in developing your activities and what could you provide to it?

What a global network brings?

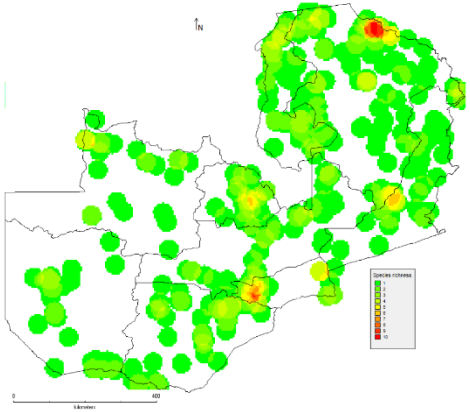
- To maximise maintenance or enhancement of agrobiodiversity genetic diversity, sustain natural ecological and evolutionary processes, and minimise threats to diversity;
- To explain and justify the priorities for conservation action recommended;
- To provide a baseline to assess the impact of conservation actions and so review implementation;
- To promote access to the conserved resources by the user community;

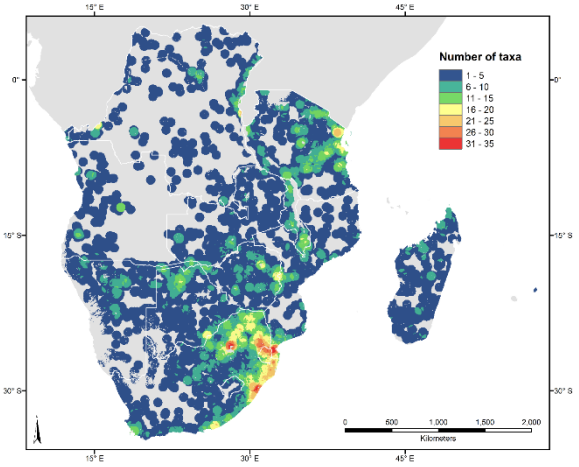
What a global network brings?

- To ensure and demonstrate the interests all stakeholders, including the local community, are considered and served; provide a framework for collaboration with other conservation and utilization stakeholders;
- To ensure wider policy goals are achieved as effectively and efficiently as possible;
- To aid fundraising and raise awareness of the value of agrobiodiversity
- To fulfil regional and global convention / treaty agrobiodiversity conservation obligations;

What we provide to global network?

- Identify priority CWRs and a network of scientifically-based, genetically rich CWR sites in each country and extrapolate this to SADC region
- In each country, network of stakeholders working together on CWR conservation and use – dialogue between breeders and conservationist; MS-committees established (Mauritius); governance mechanism created to implement NSAP at national level.
- Buy-in of high level policy makers in ensuring implementation of the NSAP









Thank you

SADC CROP WILD RELATIVES

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