



Climate Resilient Infrastructure Development Facility

Supporting regional integration
and development in SADC



SADC Regional Indicative Strategic Development Plan

Overarching goal of Regional Integration and poverty eradication to be achieved through actions in twelve priority sectors split into two groups.

- Sectoral cooperation and Integration Intervention Areas
- Cross-Sectoral Intervention Areas



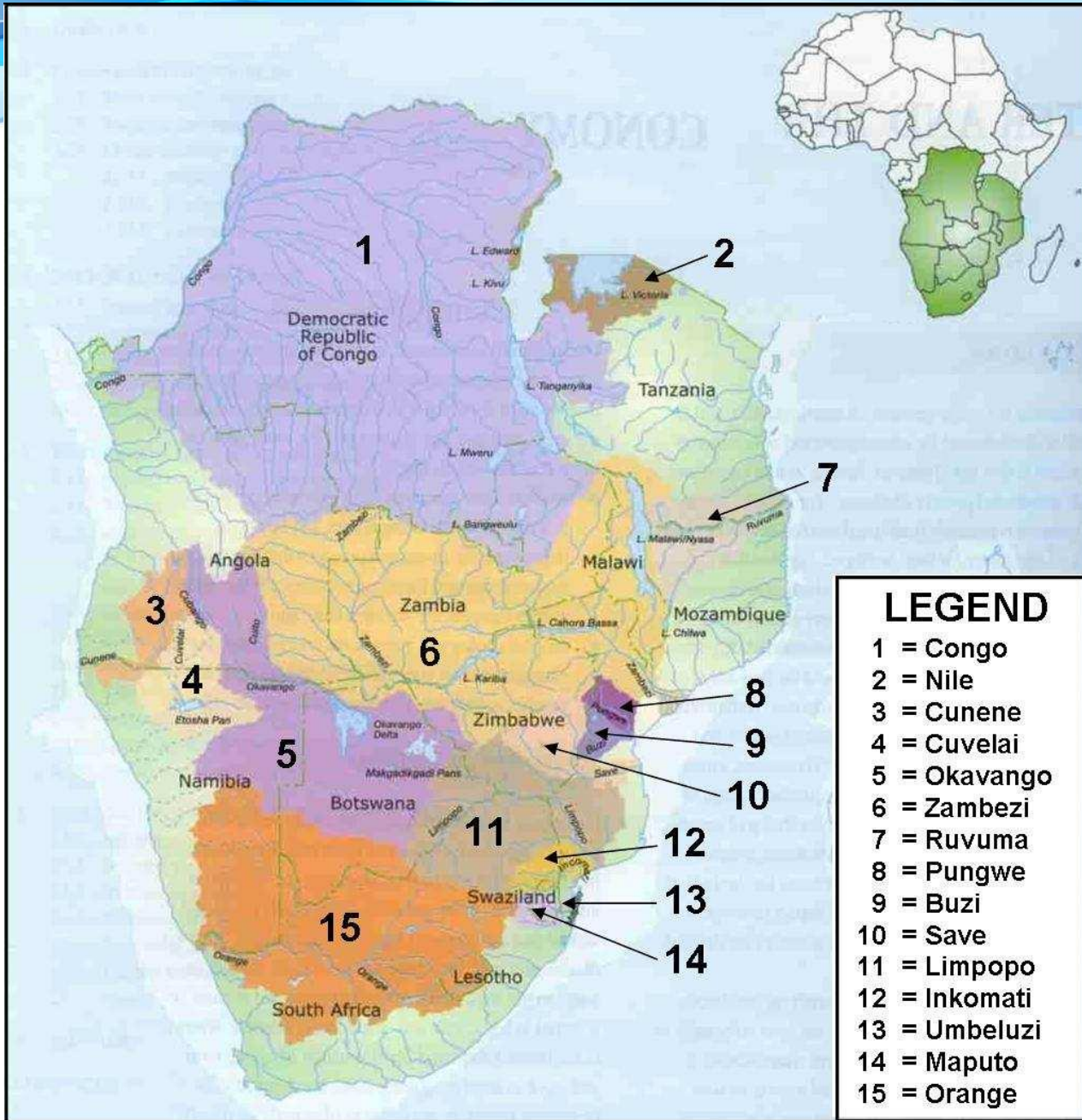
SADC Sectoral cooperation and Integration Intervention Areas

- Trade/Economic Liberalisation and development
- **Infrastructure support for regional integration and poverty eradication**
- Sustainable Food Security
- Human and Social Development



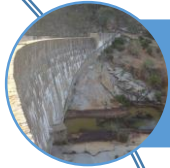
SADC Cross-Sectoral Intervention Areas

- **Poverty eradication**
- Combating the HIV and AIDS pandemic
- Gender equality and development
- Science and Technology
- Information and Communication Technologies
- **Environment and Sustainable Development**
- **Private Sector**
- Statistics





Water-related issues in SADC



Tremendous temporal and spatial variability in available water resources exacerbated by impact of climate variability



High levels of water insecurity



Vulnerability to climate shocks



Major shared river basins makes regional response to climate change a challenge



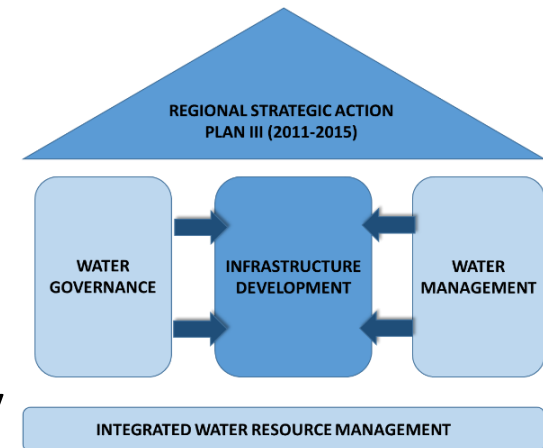
Huge infrastructure investment backlog makes disaster preparedness a huge challenge



Lead from SADC's Vision for Infrastructure Development;

Infrastructure development is seen as a central and key pillar to SADC's RSAP III delivering on;

“Equitable and sustainable utilisation of water for social and environmental justice and regional integration and economic benefits for present and future generations.”



From: SADC – Infrastructure: Water – Division; Regional Strategic Action Plan

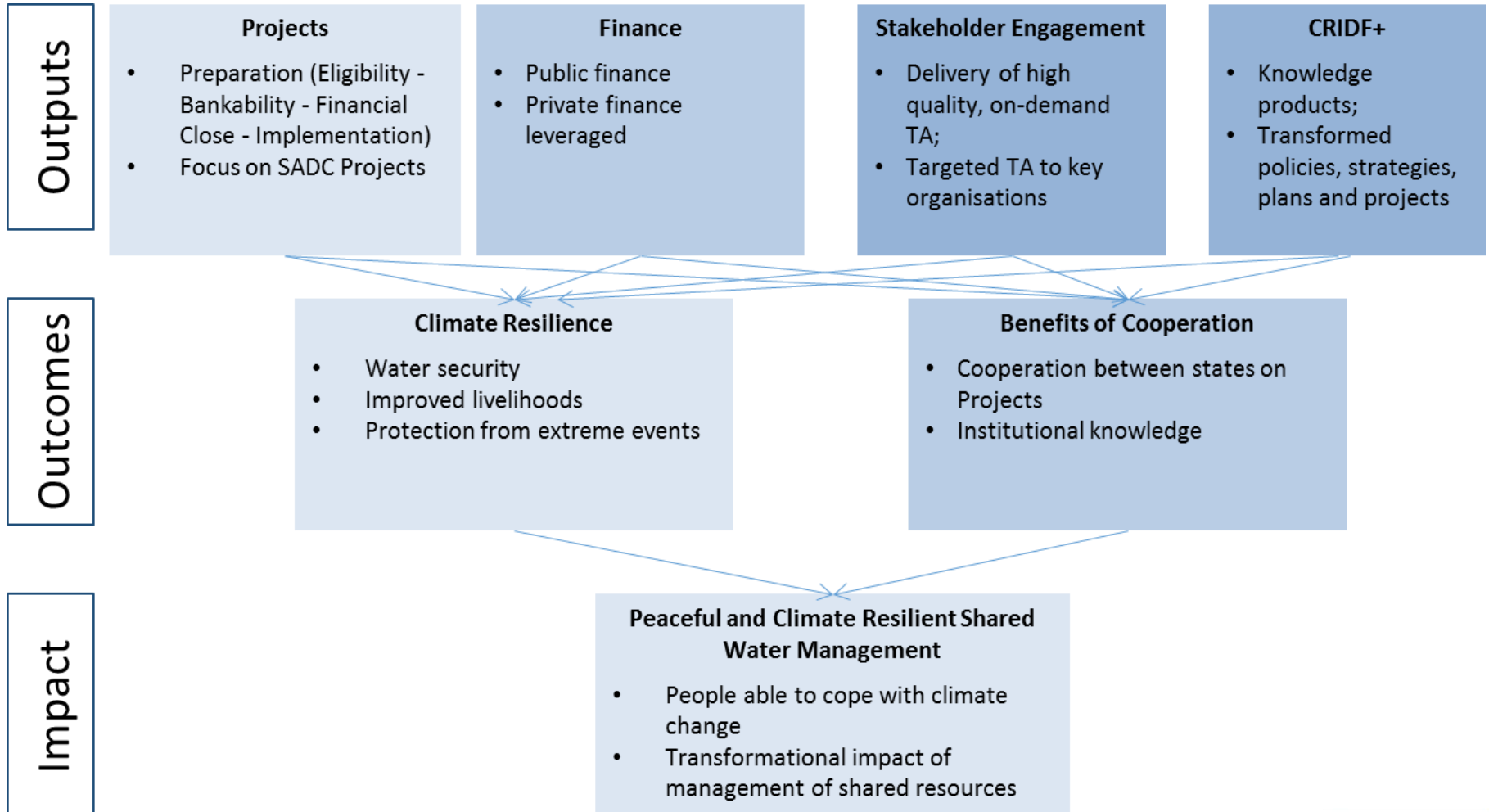


What is the Climate Resilience Infrastructure Development Facility?

- ICF-funded water infrastructure programme for Southern Africa;
- Part of a suite of 3 activities under the overall DFID intervention in transboundary waters in SADC;
- 4 year duration (until March 2017), £ 25.4m budget (capex and professional services)



The CRIDF logframe in brief





CRIDF Principles

Principle 1: CRIDF will select projects that meet clearly **identified national, basin (RBO), or SADC needs and priorities.**

Principle 2: All CRIDF projects will be **situated in transboundary basins,** working to increase climate resilience and transboundary cooperation.

Principle 3: Select infrastructure **projects to suit water resources, development and water resource characteristics of host basins.**

Principle 4: CRIDF will introduce **water, food and energy security nexus** thinking through key projects and to key stakeholders, and will include all three components into its projects.



CRIDF Principles

Principle 5: CRIDF will take on **water and sanitation projects** that form the foundation of peace dividends, even if transboundary benefits are limited.

Principle 6: CRIDF will seek **groundwater recharge and /or abstraction projects**, and will build conjunctive groundwater use into projects.

Principle 7: Prioritise projects to predict, manage and **mitigate the impacts of floods** through infrastructure, appropriate warning / response systems.

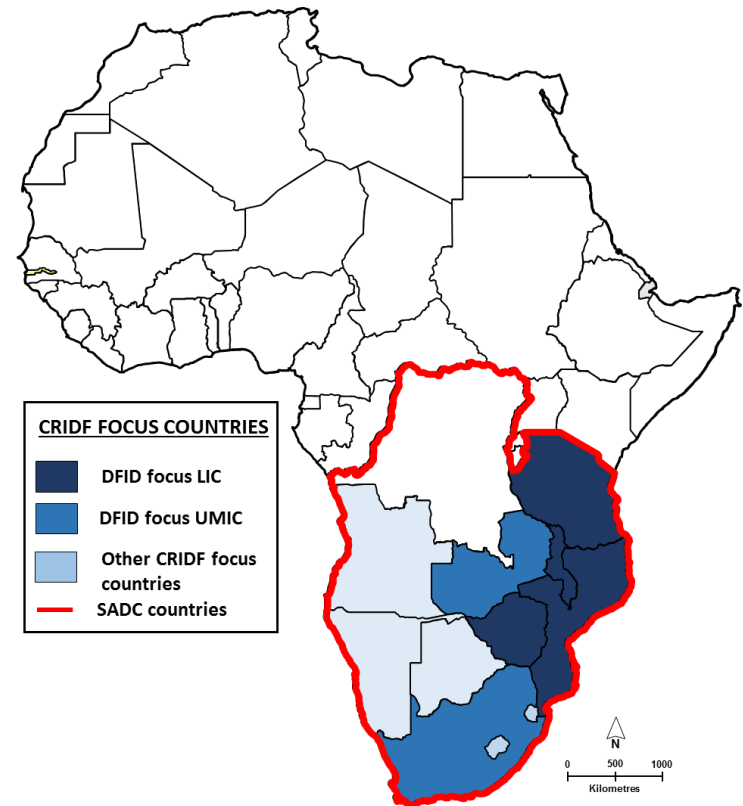
Principle 8: **Build climate considerations into the design and operation** of infrastructure, including social, economic, and governance issues.

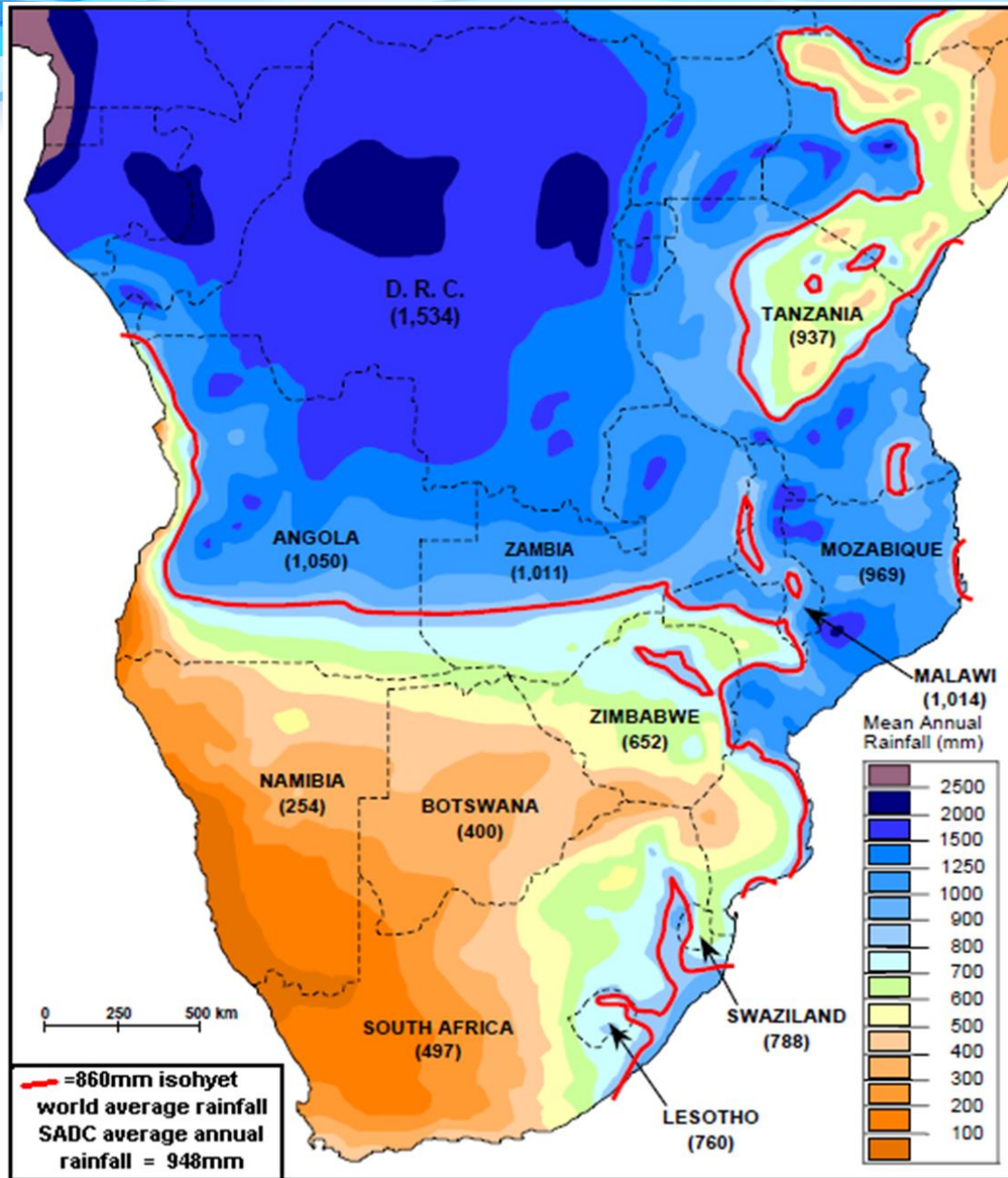
Principle 9: **Become increasingly strategic**, moving from demand driven selection to actively seek projects to maximise logframe contribution.



What are the CRIDF countries

- Working in mainland SADC countries
- DFID bilateral aid countries: Malawi, Mozambique, South Africa, Tanzania, Zambia and Zimbabwe
- With special attention on the low income countries: Malawi, Mozambique, Tanzania and Zimbabwe

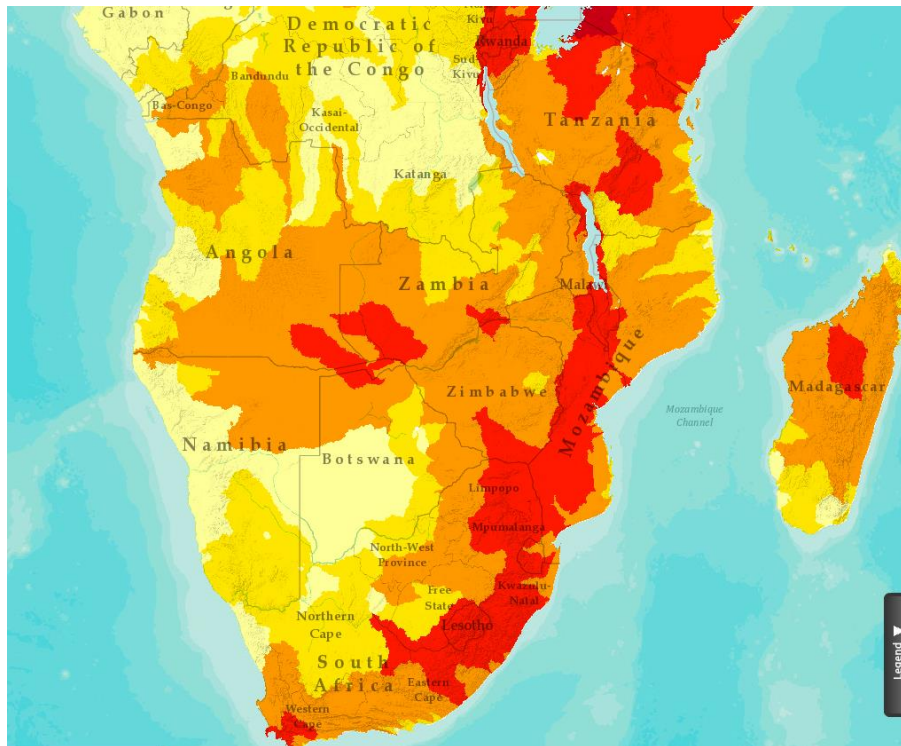






Flood Occurrence

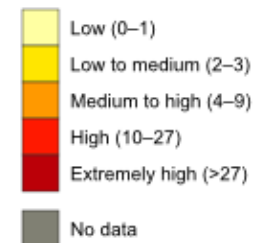
CRIDF's Climate Vulnerability Mapping Tool



The probability that a flood will occur in a given year.

Flood Occurrence

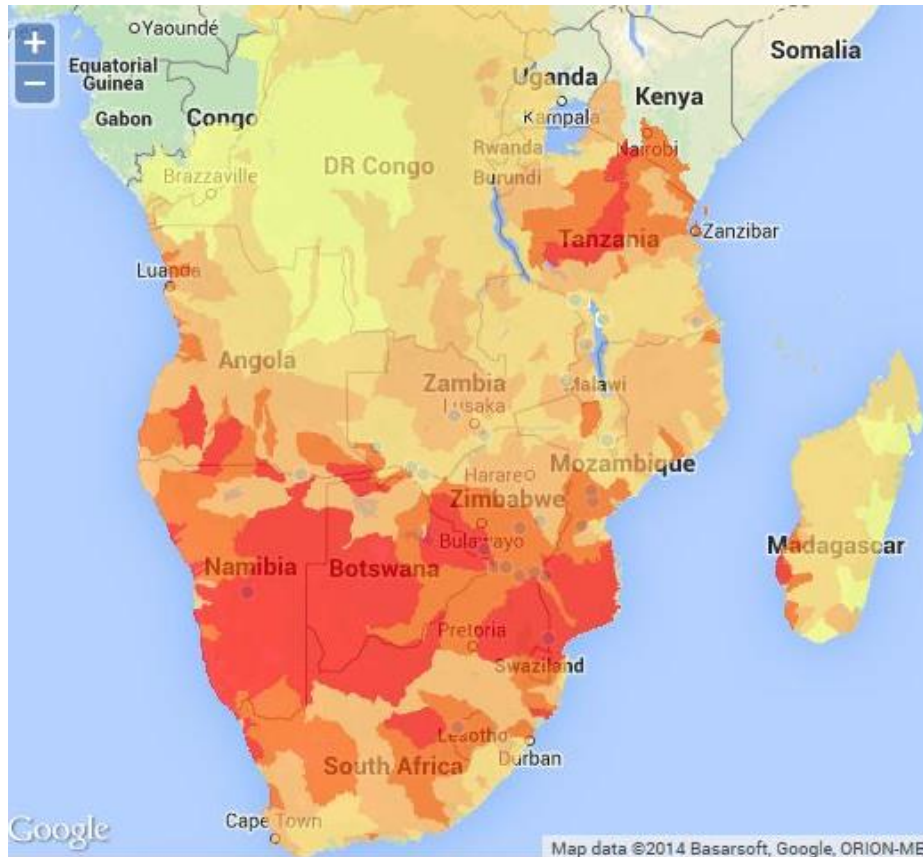
floods 1985-2011





Inter-annual Variability, incl. CRIDF Projects

CRIDF's Climate Vulnerability Mapping Tool

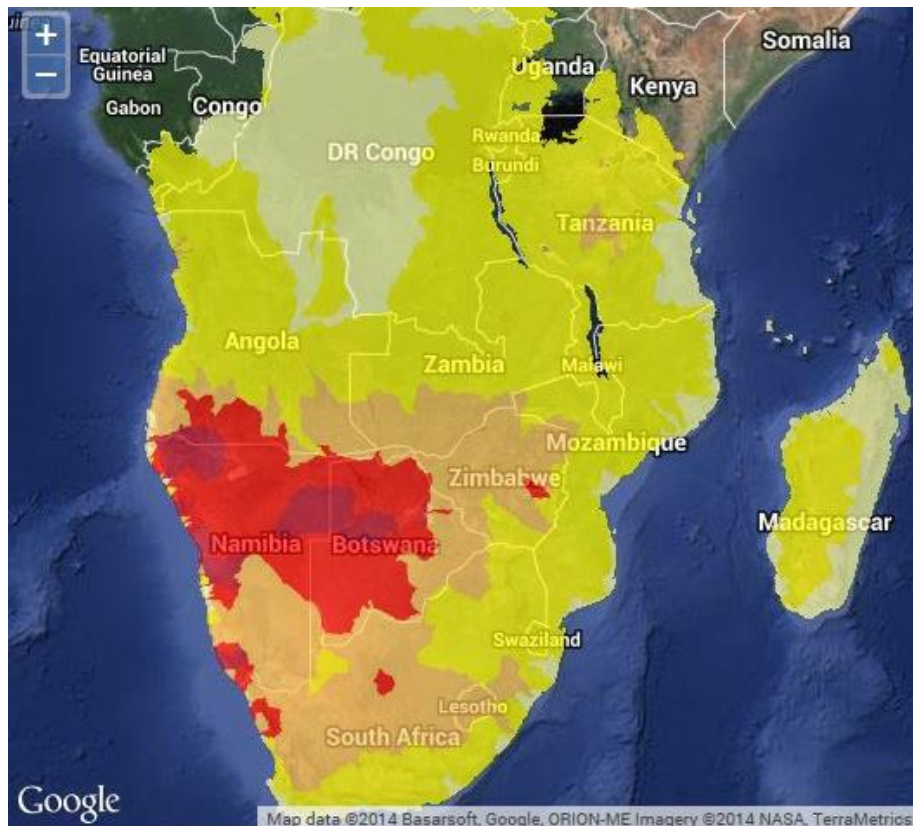


Inter-annual variability measures the variation in water supply between years.



Drought Severity

CRIDF's Climate Vulnerability Mapping Tool

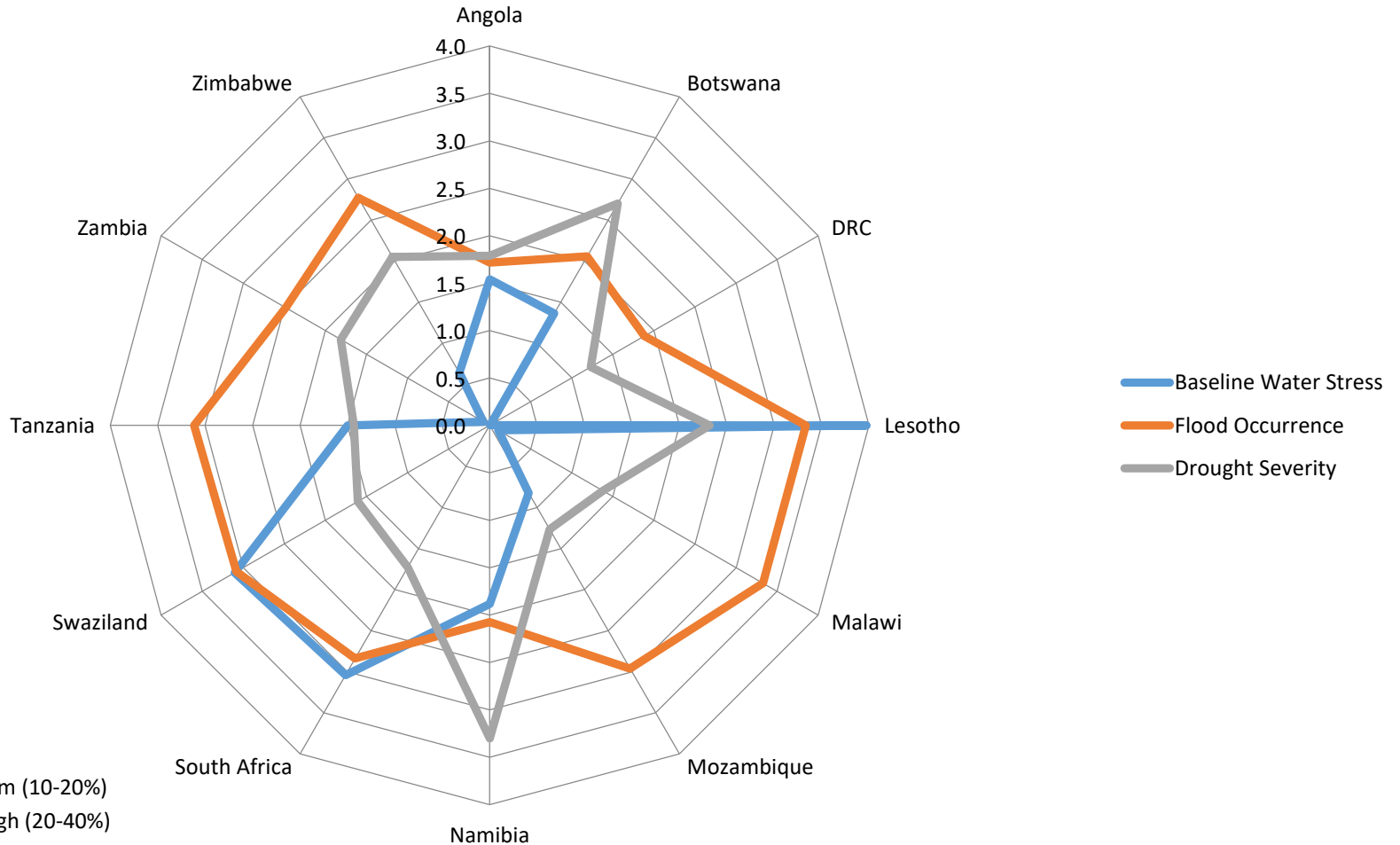


Drought is defined as a contiguous period when soil moisture remains below the 20th percentile. Length is measured in months, and dryness is the average number of percentage points by which soil moisture drops below the 20th percentile.





Water related disaster in the region



Score Value
[0-1] Low (<10%)
[1-2] Low to medium (10-20%)
[2-3] Medium to high (20-40%)
[3-4] High (40-80%)
[4-5] Extremely high (>80%)

Data source: Aquastat



Demand driven and within a climate change context

- Working with SADC and RBOs to respond to demand for investments
- Differentiating between well watered (northern) basins and water stressed (southern) basins
- Pursuing a specific strategy in each basin – different means of improving climate resilience according to context



CRIDF focus transboundary River Basins in SADC



Support to a range of investments and activities

- Entry Projects (**Quick Wins**) to engage with key stakeholders, deliver on the ground and demonstrate specific concepts more widely
- **Focal Projects** to deliver climate resilient investments to Bankability and Implementation
- **Strategic Projects**, engaging in longer-term concepts that last beyond the CRIDF timeframe
- **Stakeholder Engagement** (TA) to assist RBOs and widen as well as deepen Project influence



How will the 'Facility' work

- One-stop shop, linking to all the components necessary to deliver sustainable, climate resilient infrastructure
- Initial screening to determine eligibility (consistency with CRIDF mandate)
- Secure financing (could be from CRIDF); and
- Deliver infrastructure

Eligibility

Bankability

Financial
Closure

Delivery of the
infrastructure

CRIDF 



Where CRIDF Projects came from

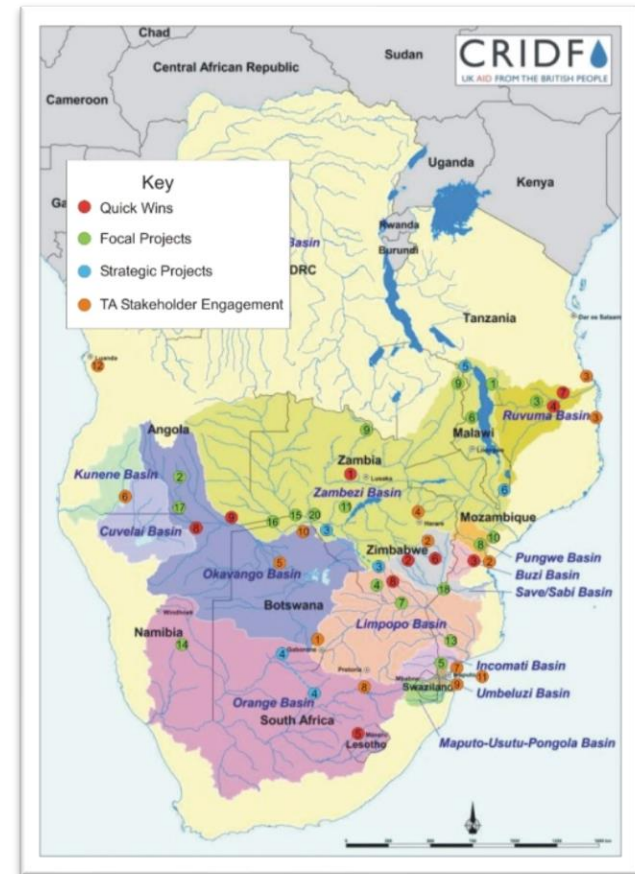
Regional Infrastructure Development Master Plan (RIDMP), RBO's, SADC programmes



Sub-regional bodies – KAZA, SAPP

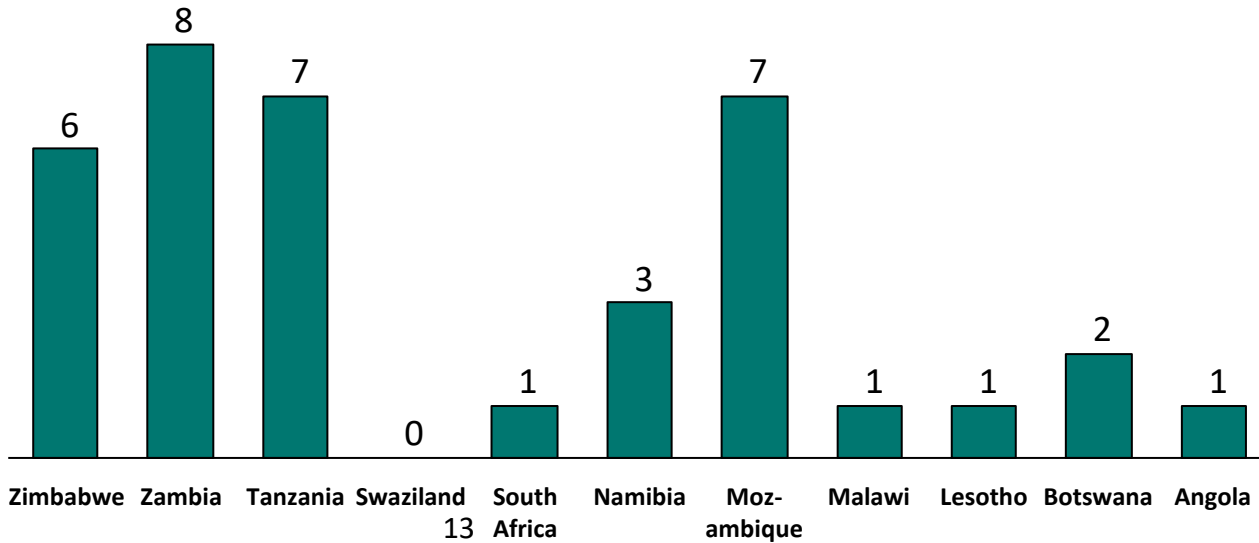


National governments and sub-national entities



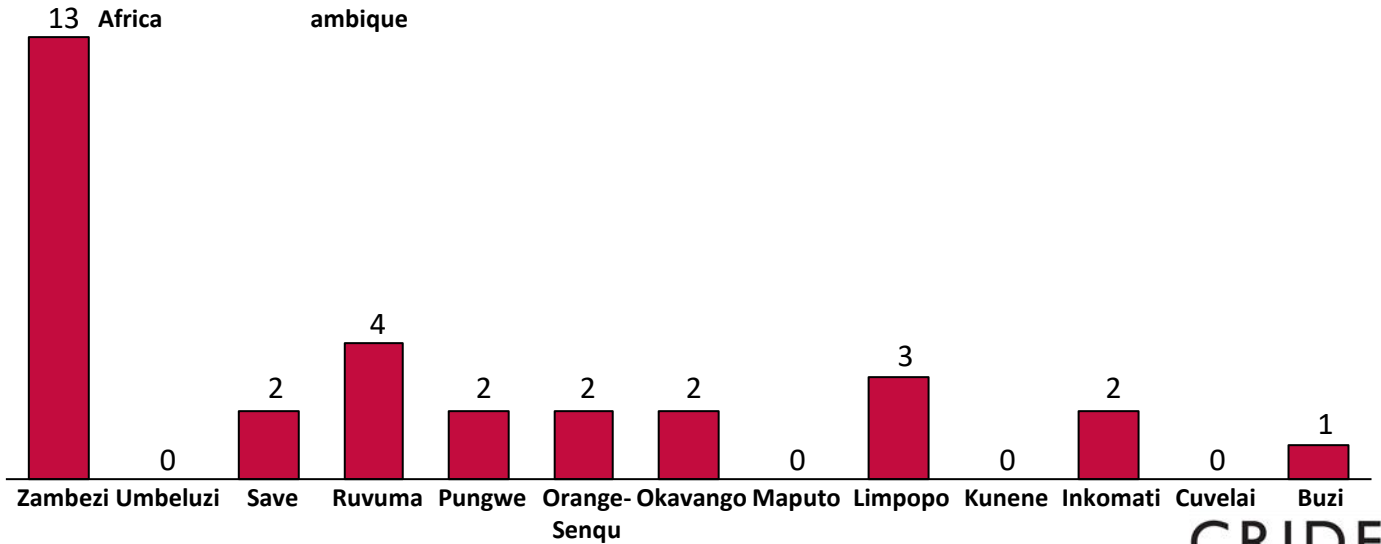


Project distribution

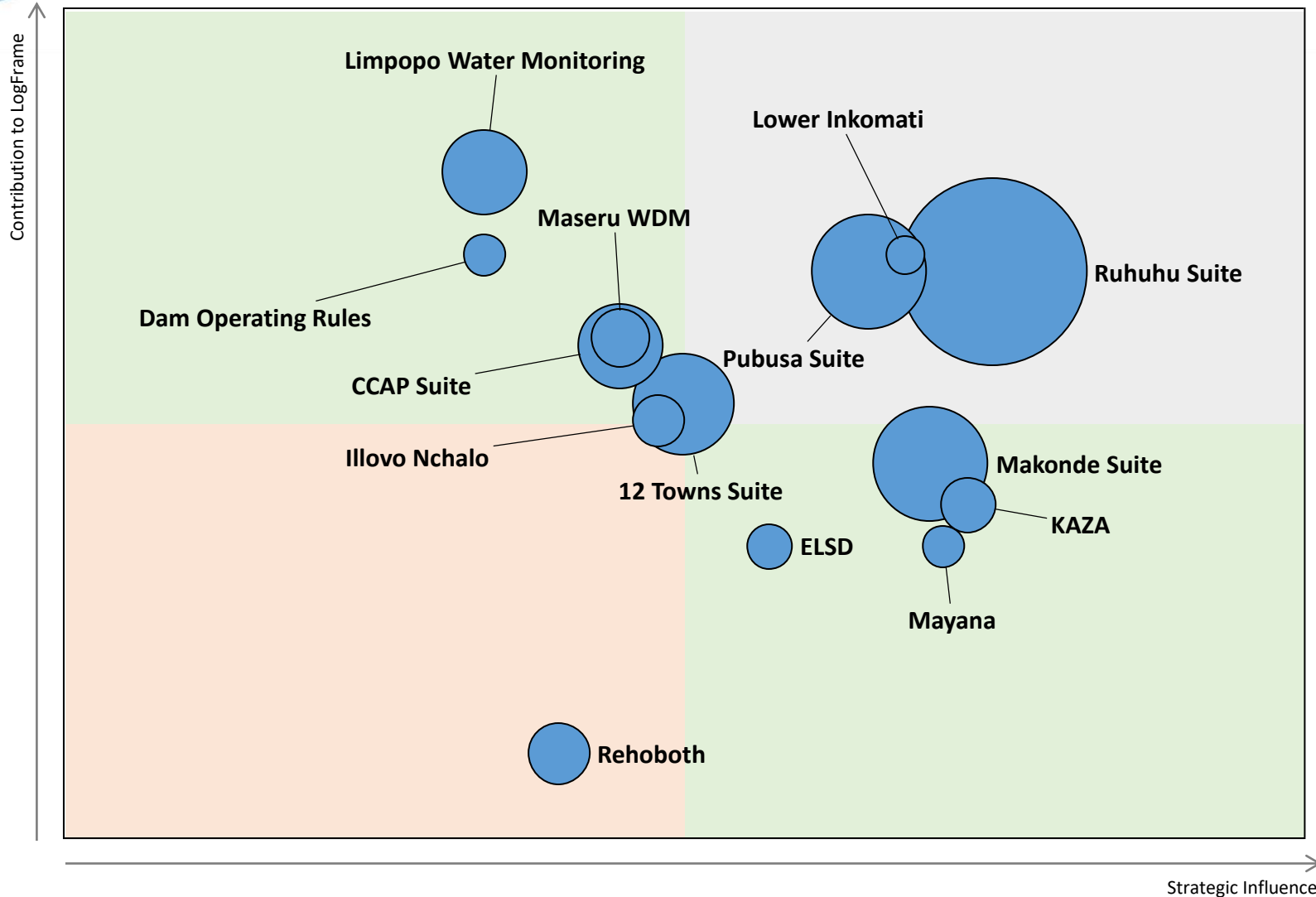


More than 50% of projects in Zimbabwe, Zambia, and Mozambique

Majority of projects located in Zambezi basin – 8 riparian states with 40% of SADC water flows



Programme Portfolio: (Grouped) Project Prioritisation





Zambezi infrastructure projects

- **Zambia 12 towns water supply projects – Kazungula, Chirundu, Chipata, Chanida**
- **Zambia CCAP projects – Sioma, Chikowa, Kazungula, Mashili**
- **Tanzania Ruhuhu valley multi-sector development – Irrigation, Hydropower, water supply and sanitation**
- KAZA livelihoods – Namibia, Zimbabwe, Zambia; future Botswana, Angola
- Zimbabwe – small rural infrastructure development
- Malawi – Nchalo water supply



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Programme Goals

- Programme aims to provide sustainable and equitable access to a safe water supply and appropriate sanitation in 12 border towns in Zambia
- Also envisaged to improve regional tourism and reduce the incidence of cross-border waterborne diseases.
- Programme supports the COMESA-EAC-SADC Tripartite Trade and Transport Facilitation Programme

- **The 12 Border Towns**
- **Kazungula-Kasane (Zambia-Botswana)**
- **Chirundu-Chirundu (Zambia-Zimbabwe)**
- Luangwa-Zumbo-Kanyemba (Zambia-Mozambique-Zimbabwe)
- **Chanje-Maluera (Zambia-Mozambique)**
- **Chipata (Mwami) -Mchinji (Zambia-Malawi)**
- Nakonde-Tunduma (Zambia-Tanzania)
- Mpulungu-Kasanga-Mutungu (Zambia-Tanzania-DRC)
- Nchelenge-Kilwa (Zambia-DRC)
- Kalabo-Mussuma (Zambia-Angola)
- Kasumbalesa-Kasumbulesa (Zambia-DRC)
- Chavuma-Caripande (Zambia-Angola)
- Sesheke-Katima Mulilo (Zambia-Namibia)



The Tripartite cooperation arrangement

The three main pillars of the Tripartite strategy:



- ♦ **Market integration**

- Market Integration concerns the removal of tariff and non-tariff barriers and implementation of trade facilitation measures

- ♦ **Infrastructure development**

- Infrastructure Development concentrates on improving the region's infrastructure so as to improve the efficiency of regional trade flows and transport network (road, rail, water and air and including ICT and energy)

- ♦ **Industrial development**

- The intention is to improve productive capacity and competitiveness and programmes that can take advantage of improvements in market integration and infrastructure development.



Programme Source

- Programme first identified in studies by GIZ seven years ago
- Identified as priority Programme in the SADC Regional Infrastructure Development Master Plan (RIDMP)
- The programme is to be implemented in collaboration with GIZ who will be looking at the Nakonde and Kasumbulesa



Scoping Stage

- 5 Towns identified as being eligible for CRIDF support
 - Kazungula
 - Chipata (Mwami)
 - Chirundu
 - Chanida
 - Sesheke
- 3 Towns prioritized by the Government of Zambia for CRIDF support
 - Kazungula
 - Chipata (Mwami)
 - Chirundu



The Prioritized Border Towns





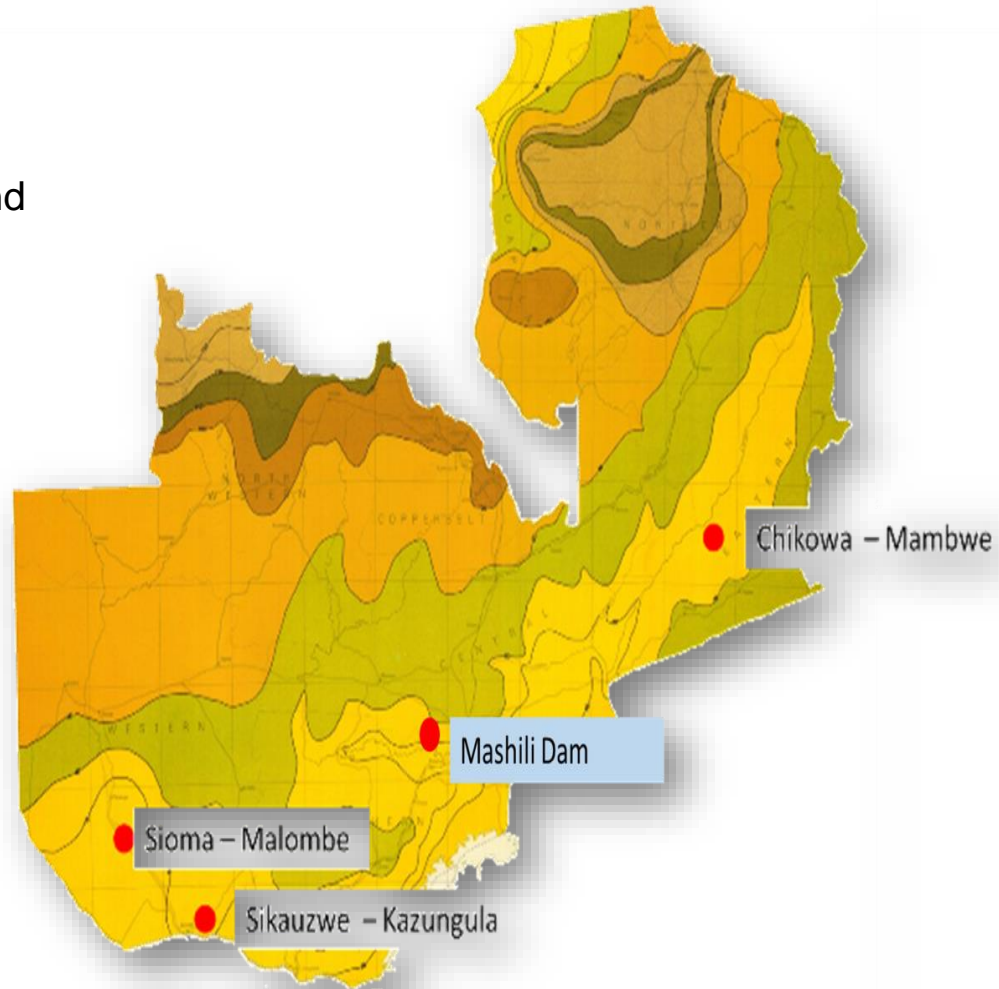
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The Zambia Climate Change Adaptation Project (CCAP)

- Formulated with the objective to “develop adaptive capacity of subsistence farmers and rural communities to withstand climate change in Zambia”
- Included in the SADC RIDMP
- Ministry of Agriculture and Livestock (MAL) as the main implementing partner
- Funded by the Least Developing Countries Fund (LDCF) through the UNDP
- Insufficient budget allocation for all sites; CRIDF requested to provide support for feasibilities → 4 sites short-listed





The CCAP Suite of Projects: Contribution to CRIDF's Strategy

Zambezi basin:

- Fourth-largest river basin of Africa, second biggest in the CRIDF's focus area
- Shared by eight countries

Area extremely vulnerable to climate change

Small-Scale Projects

- Long-Term Impact: Inform way to design climate resilient projects (MAL), and criteria for screening (MMEWD/WB)
- Livelihoods for around 100 hh (per CCAP Project)

Leveraging investments

- In-principle agreement for USD 10mn WB's loan → CRIDF to take the Projects to the end of Feasibility;
- MAL to implement



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Ruhuhu Valley Multi-sector Development Scheme

- ♦ Southern Tanzania, part of the Shire sub-catchment (Zambezi basin)
- ♦ Project prioritised by SADC and the GoT based on conventional irrigation – part of the SADC RIDMP; CRIDF influence to consider ‘whole-river’ multi sector development to optimise long-term sustainability and infer greater climate resilience
- ♦ Introduced concept of i) larger command area, ii) watsan provision, iii) larger, multi-purpose dam for water storage (inter-annual), hydro production, flood control and transport links
- ♦ Consideration in terms of Mtwara SDI, hydrocarbon extraction, extending national power and transport grids, links to other power pools etc.





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Zambezi countries Technical Assistance

- Mozambique – support to ARA-Centro; potential support to DNA
- Zimbabwe – support to ZINWA
- Angola, Botswana, Namibia – support to OKACOM visioning and Multi-Sector investment opportunities analysis (MSIOA)
- **Botswana, Mozambique, Zimbabwe – early flood warning in the Limpopo basin**
- Botswana – joint basin survey for ORASECOM
- Mozambique, Zimbabwe – Save operating rules



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PuBuSa CRIDF Interventions

- Responding to the needs of poor Communities and key Partners
- Need to protect the resource base
- **Strengthening Institutional Capacity of key Partners through TA support**
- **Strengthening Stakeholder structures to enhance mutual trust and confidence**
- **Consolidating cooperation in Transboundary Water Resources Management**



CRIDF focus transboundary River Basins in SADC



Our Strategy

- Our strategic framework approach to building climate resilience of poor communities in Pubusa is guided by the CRIDF and Pubusa Portfolio Strategies
- CRIDF supports actions or projects at regional, national, sub-national, or local levels that better enable people – particularly the poor – to predict, manage, or mitigate the impacts of extreme climate events through infrastructure interventions
- In Pubusa our strategy is to build **Bonding** and **Bridging Social Capital**
 - **Bonding Social Capital** involves the strengthening of local stakeholder structures and capacity to take collective action and to enhance sustainability in O&M
 - **Bridging Social Capital** links these local groups to resources and external partners





TA for ARA-Centro: Objective

To enhance institutional capacity and Transboundary Water Resources Management through support in establishing and operationalizing stakeholder structures in the Buzi and Save River Basins





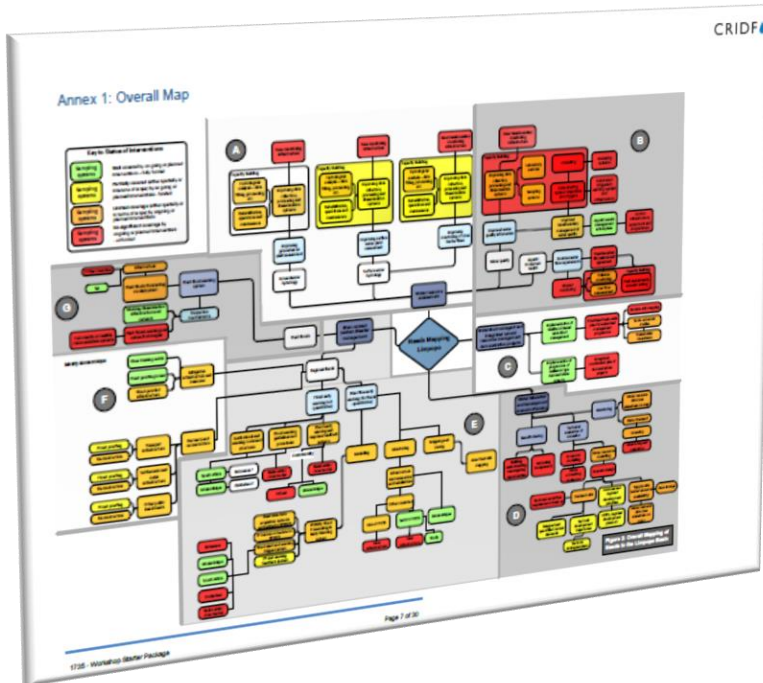
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Limpopo Flood Warning

- Increasing flood warning times from days to weeks by automatic cross border warnings through mobile phone networks
- Expected Outcome: Water yield assessments and flood warning times improved for the whole basin.





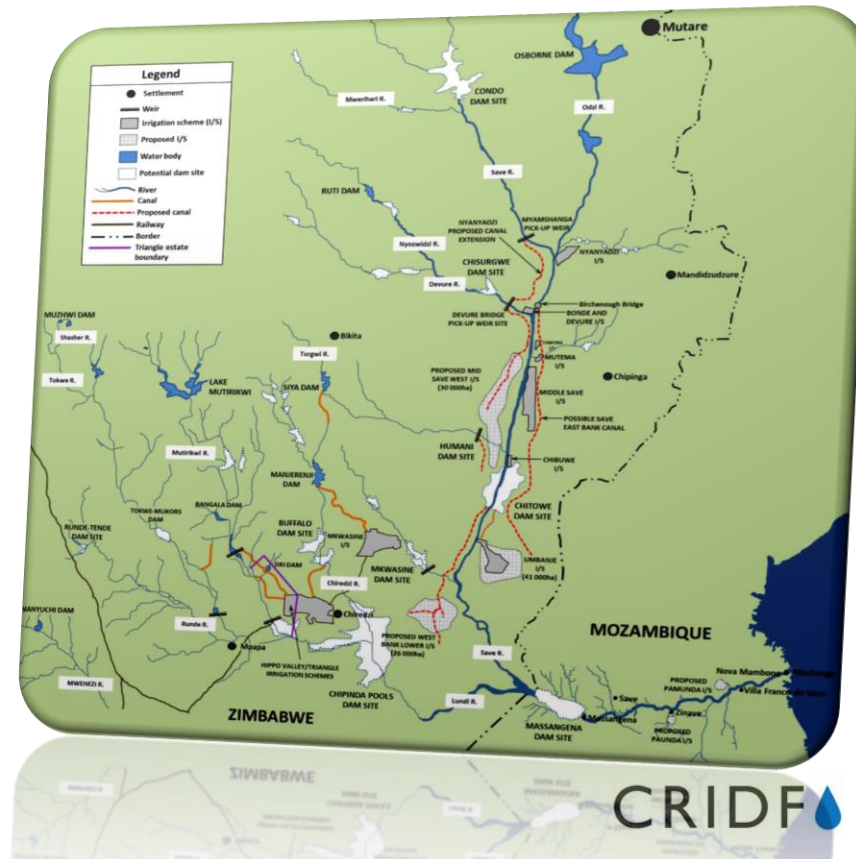
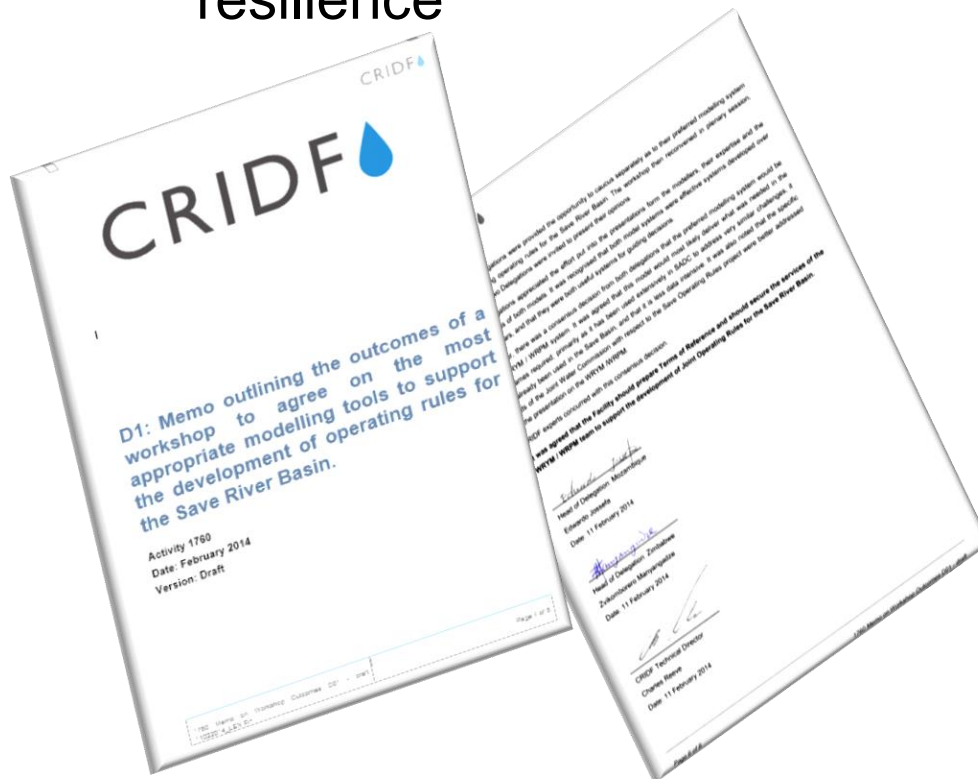
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Save Basin Operating Rules

- Influencing the way Mozambique and Zimbabwe cooperate over increasingly scarce water.
- Expected Outcome: Peaceful cooperation between Mozambique and Zimbabwe confers basin-wide climate resilience





Zambezi strategic interventions

- Building regional approaches to climate resilience while expanding smallholder contract farming - Illovo+
- Water infrastructure supporting shared economic growth in TFCAs - KAZA+
- Support to the Southern Africa Power Pool
- Songwe HPP and irrigation project – financial modelling and Panel of Experts
- Rua river flooding



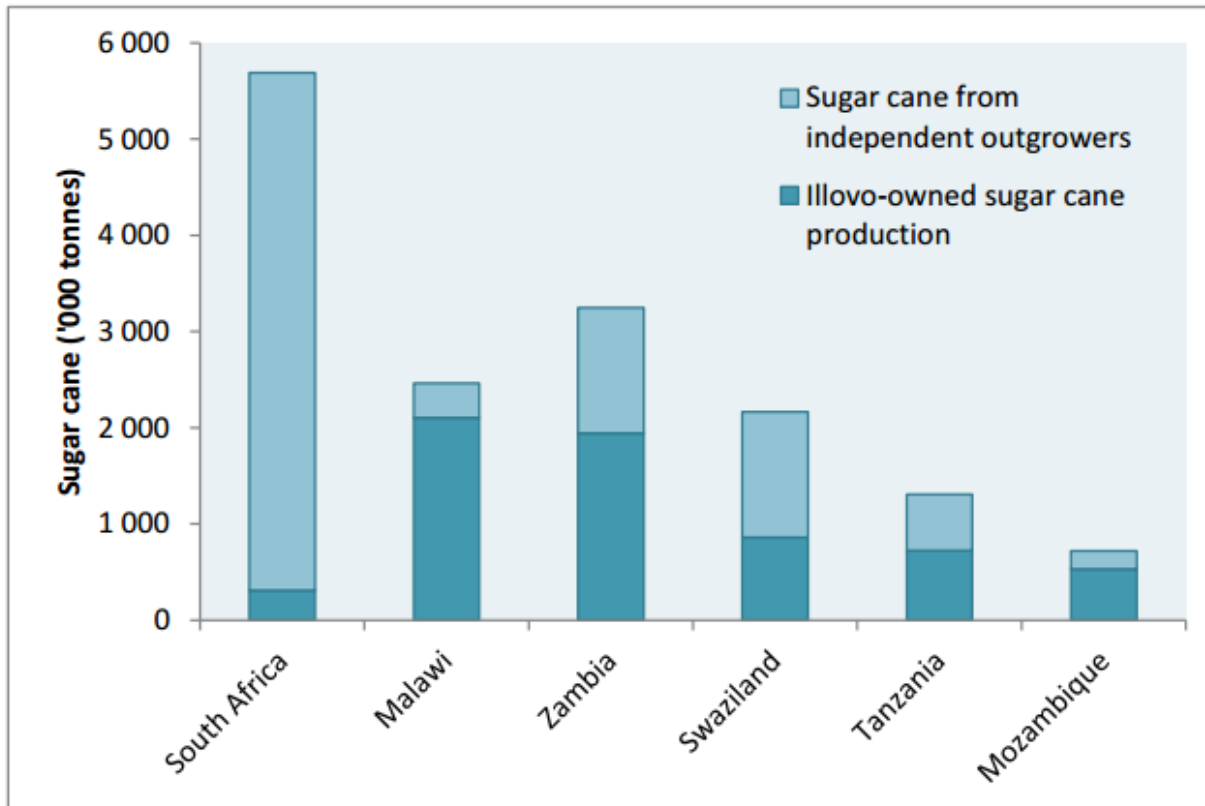
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Importance of Smallholders for Illovo

Sugar cane production and purchases, 2012/13



- **South Africa:** Over 5,000 smallholders supply ~5% outgrower cane;
- **Malawi:** Nearly 1,900 smallholders supply over 90% of the outgrower cane;
- **Tanzania:** Over 6,300 smallholders supply ~70% of outgrower cane;
- **Swaziland:** Approx. 3,000 smallholders supply 32% outsourced cane;
- **Zambia:** Smallholders supply ~20% of outsourced cane;
- **Mozambique:** Smallholders supply ~17% outsourced cane.

- **In total, the Group sources 17% of outgrower cane from smallholders, or 34% when South Africa is excluded.**



Focus / Problem

Problem: Illovo's smallholder farmers are facing climate variability and change risks

Project Aim:

Better understand the climate vulnerabilities of Illovo's smallholder farmers, and the agri-business as a whole.

In order to:

- Develop strategies for the smallholder farmers to bolster their resilience to climate risks;
- Draft concept notes outlining potential of small-scale infrastructure as found during the opportunities' assessment.



Proposed solution

- Undertake Vulnerability Assessments at focus sites;
- Identify opportunities for enhance climate resilience at each focus site (opportunities for responding to vulnerabilities - with focus on SFAs);
- Develop outgrower strategies for enhanced climate resilience;
- Develop Project Concept Notes for six sites (feasible projects for implementation);
- Outline response recommendations for enhancing Illovo's outgrower climate resilience;
- Develop Vulnerability and Opportunity Assessment Tools for future use at sites.



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Problems

- Participation in the benefits of the current national tourism sectors is largely limited to formal participation by the private sector.
- Engagement of local communities is currently limited to some local employment with only peripheral participation of local enterprises.
- With increasing wildlife numbers, the incidence of human-wildlife conflict is escalating, and with no added benefits, communities experience a **NET LOSS** in quality of life.
- Human-wildlife conflict and unplanned land use practices pose a threat to wildlife corridors





Problems

- Thus the majority of community members, who mostly rely on natural resources for subsistence, become part of the problem rather than the solution.
- In addition, the KAZA TFCA is in an area of **high and increasing climate variability**, further exposing already marginalised communities to climate vulnerability.
- The private sector is the driver of the economic engine in the tourism sector – and major consumers of produce – but a large proportion of items consumed are imported from outside of the KAZA region.





Proposed solution

- Ensuring that local communities enter the tourism value chain to provide alternative income streams, *resulting in more secure livelihoods.* **BUT HOW?**
- KAZA and CRIDF can assist in de-risking the steps that are necessary to get local communities to a position where they can participate.
- Meeting market needs is the catalyst that is required to engage the private sector as the agent for change.
- Bringing production closer to the market has both **water** and **environmental advantages**, whilst also **creating jobs** and **improving livelihoods**.



Thank you