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TFCA and River Basin Organisation Collaboration

- TFCA-RBO MoUs and task teams.
- Ecosystems-Water-Energy-Food nexus .
- Climate resilience and transboundary freshwater governance.
- Recommendations and commitments.

Facilitator: **Monika Shikongo,** Namibia

Welcome and Framing

Dr Dumisani Mndzebele
SADC Water Division



TFCA and River Basin Organisation Collaboration Session

Strengthening Transboundary Water–Biodiversity Linkages in Southern Africa

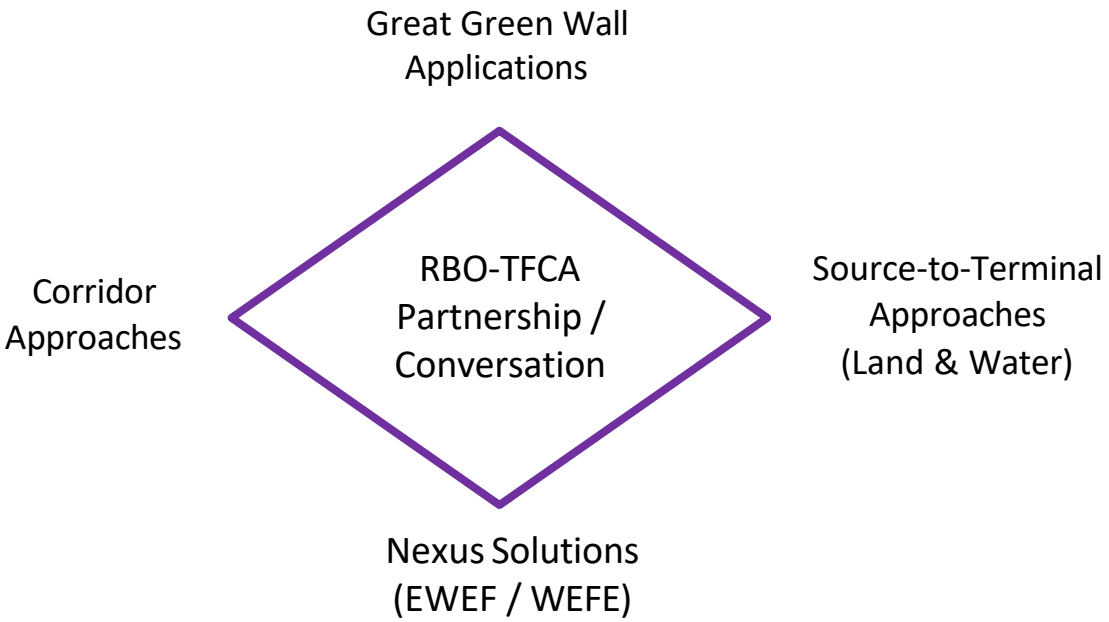
Objectives of Joint Session & Expected Outcomes

10 – 12 November 2026

Dr Dumsani Mndzebele

SADC Secretariat – Water Division

Framing the RBO-TFCA Collaboration Dialogue



OBJECTIVES

1. Review and validate findings of the RBO–TFCA joint action stock-take to 2026, and agree follow-up actions.
2. Align RBO priorities with regional targets under SADC, including the region's contribution to global targets such as the SDGs and the Global Freshwater Challenge restoration goals - identify priority restoration innovations and clusters for joint RBO–TFCA action.
3. Map indicator targets against Member States and their linked transboundary basins.
4. Introduce the Regional System of Systems concept for information management systems and convergence of tools for management and restoration
5. Explore source-to-sea and marine linkages in the Southwest Indian Ocean (SWIO) marine TFCAs.

Outcomes

1. Shared, validated understanding of RBO–TFCA stock-take findings and priority gaps moving forward.

2. Indicator framework mapped against Member States and their transboundary basins.

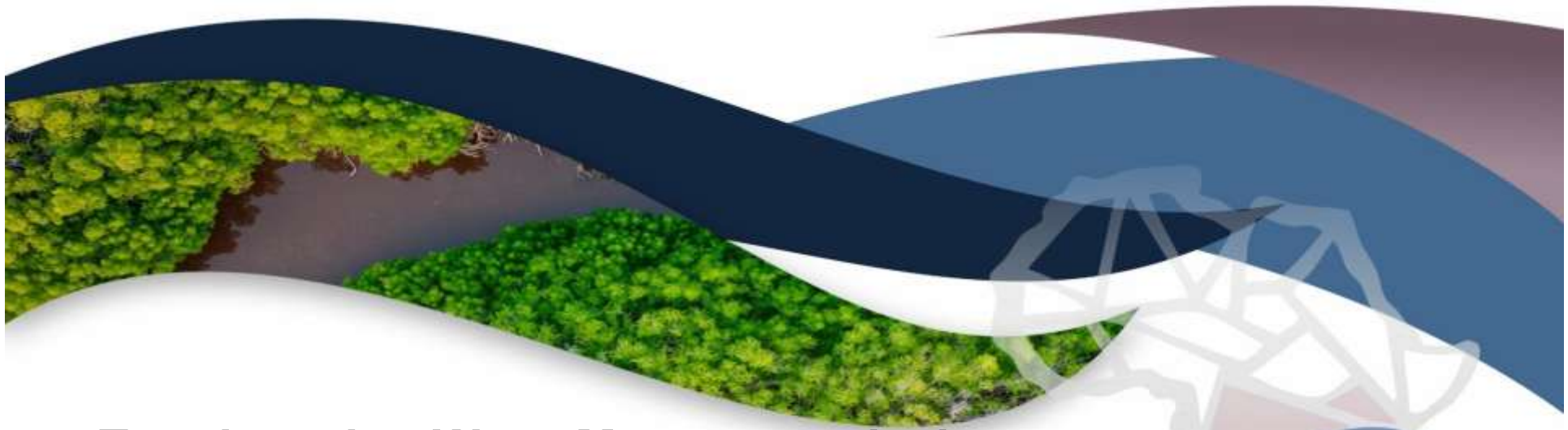
3. Initial list of priority restoration clusters for joint RBO–TFCA follow-up.

Thank You!

RBO-TFCA stock-take recap

Dr Eddie Riddell
GWPSA/LIMCOM





Transboundary Water Management in the SADC region (TWM VI)

SADC TFCA Network Annual Meeting 2026:

11 November 2026

Joint RBO–TFCA Working Session:
Strengthening Transboundary Water–Biodiversity Linkages in Southern Africa

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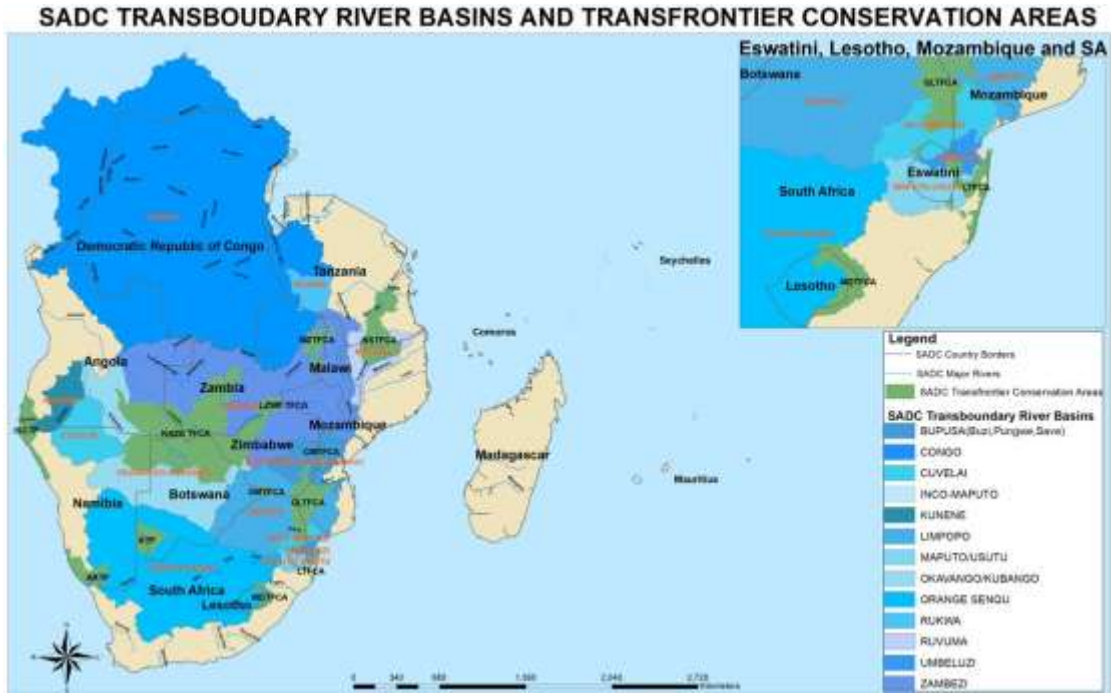
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Purpose of Session

- History of cooperation in shared basins, aquifers and landscapes
- Emergent themes
- Shared Targets
- Opportunities
- Reflections from the RBO-TFCA Practitioners



Two decades of RBO–TFCA cooperation

From founding agreements to the first joint MoUs between river basin organisations and TFCAs

FOUNDATIONS: BASIN AND TFCA AGREEMENTS

1994
OKACOM Agreement signed in Windhoek

2002
Great Limpopo Park treaty signed at Xai-Xai

2003
LIMCOM Agreement signed in Maputo

2004
ZAMCOM Agreement signed in Kasane

2006
KAZA MoU signed in December

2011
KAZA Treaty signed; ZAMCOM Agreement in force

JOINT RBO–TFCA COOPERATION

2010
OKACOM–KAZA workshop in Livingstone on shared work plans

2019
KAZA workshop on formal links with OKACOM and ZAMCOM

2021–23
GLTFCA freshwater strategy developed, with input to LIMCOM

Nov 2024
KAZA–ZAMCOM MoU signed at the Kasane TFCA Network meeting

Dec 2024
LIMCOM–GLTFCA MoU signed on freshwater management

Sources: International Waters Governance, SANParks, SARDC, KAZA Secretariat, SADC TFCA Portal, Spiked Media

SADC TFCA Network Review 2022

Rational for increased innovative investment in TFCAs

1. Debt for Nature Swaps
2. Carbon Trading
3. Biodiversity Offsets and Biobanking
4. Wildlife Conservation Bonds
5. Payment for Water Catchment Services
6. Direct Investment

- **Water Towers (aka SWSAs)**
  - Maloti-Drakensberg (Tugela-Vaal Scheme & Lesotho Highlands Water Project)

Other Candidates

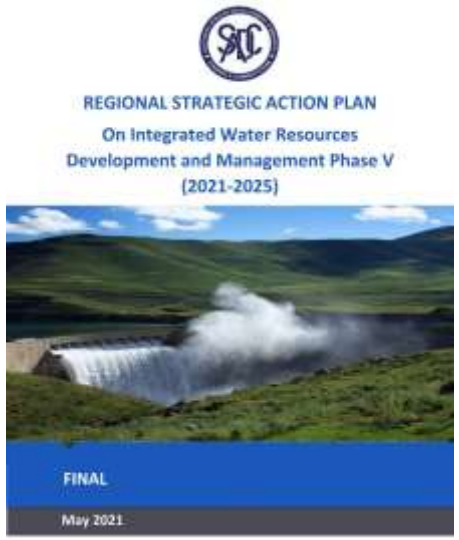
1. Kavango-Zambezi (KAZA TFCA) – significant to Okavango & Zambezi
2. Malawi-Zambia TFCA – Possibly for fish stocks in Lake Malawi
3. Chimanimani TFCA – localised water related services
4. Great Limpopo TFCA – marginal from water tower perspective but likely from flow, quality assimilation, sediment retention, groundwater recharge

SADC Transboundary Strategies





SADC
Strategic Activities



SA 1.2.1. Conduct a study on the challenges and opportunities towards strengthening mandates and capacities of regional and shared watercourse institutions:

'…Understanding the status of water sector institutions will also include looking at the overlap that exists between some institutions and Transfrontier Conservation Areas (TFCAs), the latter of which also has an interest in freshwater. The activity will also look at interactions between marine and freshwater scenarios as this is increasingly becoming an issue with some SADC institutions already conducting work in this area.'

SA 3.3.3. Develop capacity of Member States and SWIs on nature-based solutions/ecosystem-based adaptations for more resilient management of transboundary river basins and aquifers

a) Inventory of ecosystem-based adaptations to improve management of transboundary river basins and aquifers in fragile ecosystems and flood-prone areas
b) Awareness raising ecosystem-based adaptation and training sessions to improve transboundary river basin and aquifer management including Oceanic Island States
c) Demonstration ecosystem-based adaptation projects to enhance water security of transboundary river basins and aquifers including Oceanic Island States.

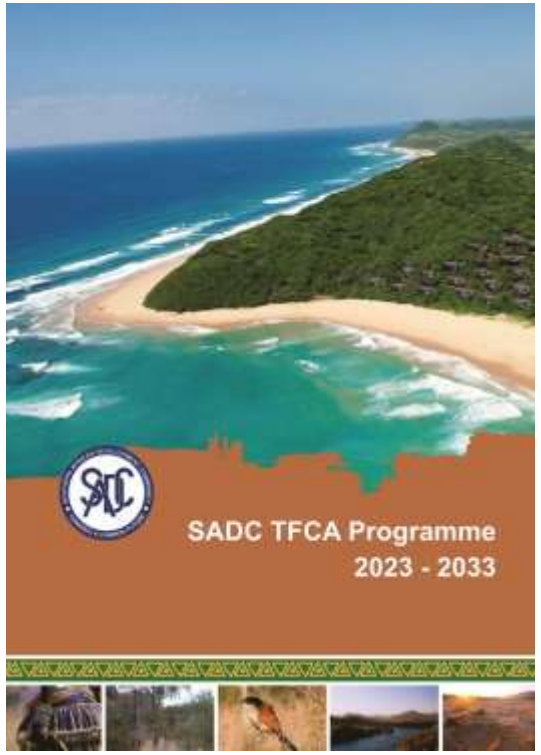
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SADC Transboundary Strategies



Outcome	#	Output	Activities	Yr 1-3	Yr 4-6	Yr 7-10	Role
			monitoring, etc.				
Outcome 1.2 Effective transboundary ecosystem services and species management enabled and strengthened across SADC TFCAs	1.2.1	Implementation of an integrated approach to freshwater biodiversity supported	• Develop integrated freshwater resource management strategies for terrestrial TFCAs				Facilitate: MS Implement: TFCAs
			• Ensure that a wholescale approach underpins transboundary water strategies, projects, including the use of nature-based solutions, and monitoring programmes				Facilitate: MS Implement: TFCAs
			• Implement a systematic / systemic approach to basin-level biodiversity baseline / eco-inventories (current approached fragmented)				Advocate: SADC Implement: MS / TFCAs
			• Commission analytical work to understand the role of TFCAs in: o Groundwater recharge o Freshwater water management o Community livelihoods support o Disaster and risk management (floods, droughts, etc.)				Facilitate: SADC Implement: TFCAs
			• Promote and formalize the relationship between RBOs and TFCAs through the signing of agreements				Facilitate: SADC Implement: MS / TFCAs
	1.2.2	Implementation of an integrated approach to coastal and marine biodiversity supported	o SADC to support Coastal and Island Member States with the establishment of more marine and coastal TFCAs in addition to Lubombo TFCA				Advocacy: MSSADC: Implement
			• Raise awareness about marine and coastal TFCAs at the regional level through: o A series of round table discussions on a range of thematic areas as part of the Community of Practice activities at the SADC TFCA Network				Implement: SADC Advocacy: MS
			Raise awareness about marine and coastal TFCAs at the national level through: • Establishment of inter-departmental forums for TFCA development on a MS level				Facilitate: SADC Implement: MS

SADC TFCA Network Review 2022

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Alignments & Projects between RBOs and TFCAs

KAZA & OKACOM 2017 MoU, ZAMCOM 2024 MoU

GLTFCA Freshwater Strategy & LIMCOM MoU (supported by USAID Resilient Waters)

RBO Symposium 2023 – SADC TFCA Secretariat

"Integrated planning and management of transboundary natural resources: strengthen cooperation between shared watercourse institutions and transfrontier conservation areas"

INMACOM & Lubombos TFCA current GEF8-UNDP project

Rovuma Basin – Niassa-Selous TFCA/Mnazi Bay – Quirimbas TFCMA

Greater Mapungubwe TFCA – Disaster Risk Management (GiZ)



SADC TFCA-RBO Examples in Action!



SADC TFCA's Confronting Climate Change, Webinar 2 July 2024



Kavango-Zambezi TFCA and Zambezi Commission, MoU Signing, Botswana, November 2024

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RBO–TFCA joint cooperation: scope of mechanisms

Identified at the 2024 SADC TFCA Network meeting, Kasane, Botswana: a climate change and water Community of Practice

WORKING CLUSTERS

Central: KAZA TFCA with OKACOM and ZAMCOM

Southern: GLTFCA, GMTFCA, MDTFCA and ARTP with LIMCOM and ORASECOM

Northern: to be confirmed

HOW IT WORKS

Meets every 3 months, in person or online

Shared online platform and data sharing protocols

Annual evaluation by member survey

Joint planning

Systematic maps of projects and integrated catchment management

Joint surveys

Hydrocensus, biological inventory and ecostatus to set monitoring baselines

Fisheries

KAZA, OKACOM and ZAMCOM sub-working group, a base for a SADC platform

Environmental flows

Put the GLTFCA Freshwater Strategy into action, starting with harmonised flows

Nature-based livelihoods

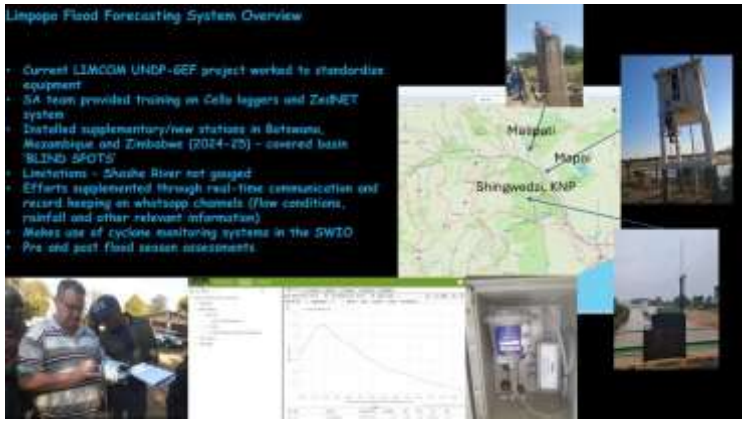
Climate-smart farming and livestock water supply to ease human–wildlife conflict

Awareness and skills

Events, local capacity building, environmental entrepreneurship, learning exchanges

Source: Terms of Reference, SADC TFCA Climate Change and Water Community of Practice

January 2026 Flood Cooperation





- LIMCOM Hydrometric Stations put to test including those installed within GLTFCA areas
- Close cooperation between LIMCOM Flood Task Team and GLTFCA members (KNP, GNP during flood events) aligned to early warning and disaster response
- SADC TFCA Network Webinar https://www.youtube.com/watch?v=crXqk3qFPro





A fully independent hybrid fund that aims to enhance livelihoods, improve ecosystem resilience and provide equitable benefits to the riparian states of Angola, Botswana and Namibia in the Cubango-Okavango River Basin (CORB).

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Transboundary Water and Landscapes

Sustainable Finance

Bootcamp

Sustainable financing for joint impact in River Basin Organisations and Transfrontier Conservation Areas of southern Africa, with a focus on the Great Limpopo.



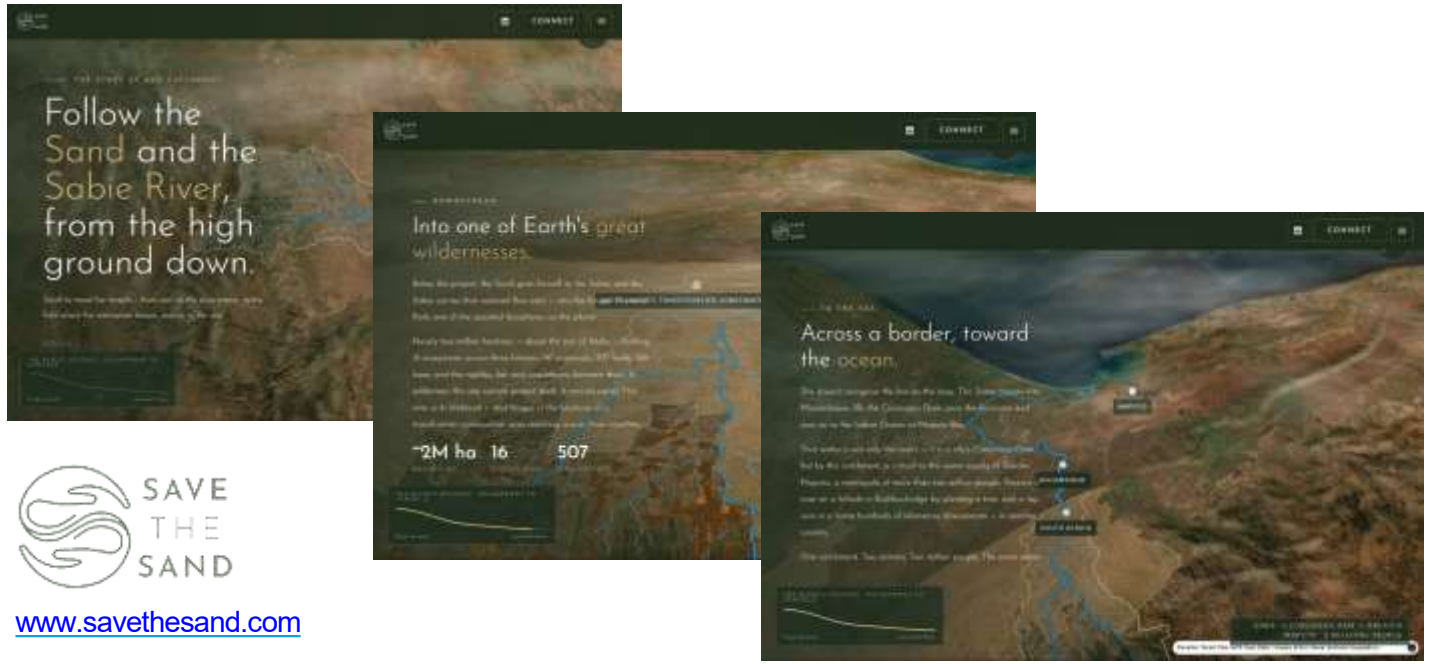
26 - 27 November

08:30–16:00

Glenburn Lodge and Spa,
Muldersdrift, South Africa.


Restoring Lesotho's Lifeblood: A Strategic Framework for Catchment Management
Navigating the Lubombo/Inkomati: A Strategic Roadmap for Transboundary Water Governance and Finance
Shaping the Future of the GLTFCA:
Challenges and Opportunities in Transboundary Resource Management
CRITICAL CHALLENGES
STRATEGIC OPPORTUNITIES

A community-public-private partnership for catchment restoration at the watershed between the Incomati and Limpopo Basins, serving the Great Limpopo TFCA





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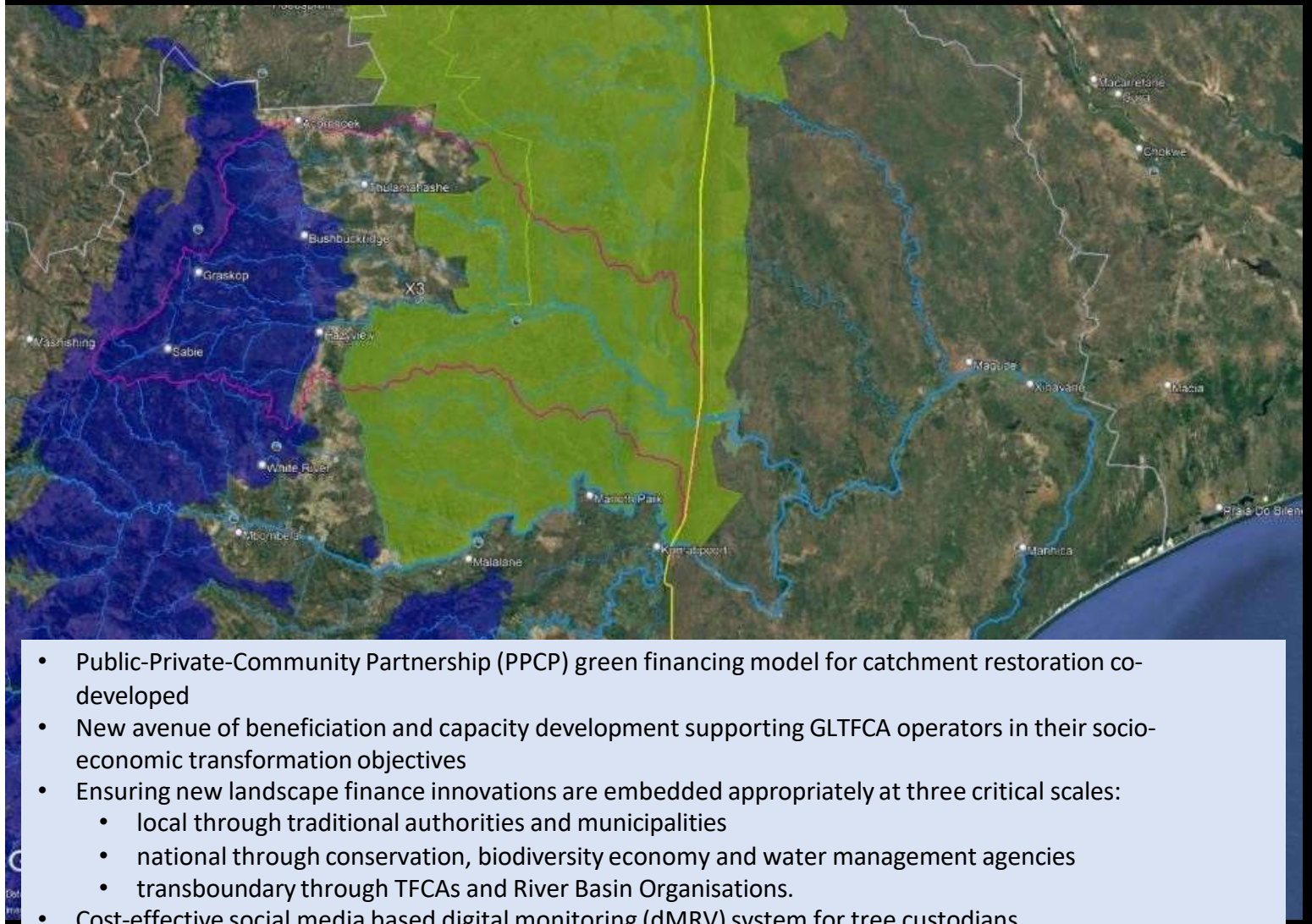
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Strategic Water Source Areas

Mpumalanga Drakensberg SWSA

- **NWRS-3**
- **National Water Act Amendments**
- **Critical water supplies for Bushbuckridge**
- **Maputo via Corumana System**

- Public-Private-Community Partnership (PPCP) green financing model for catchment restoration co-developed
- New avenue of beneficiation and capacity development supporting GLTFCA operators in their socio-economic transformation objectives
- Ensuring new landscape finance innovations are embedded appropriately at three critical scales:
  - local through traditional authorities and municipalities
  - national through conservation, biodiversity economy and water management agencies
  - transboundary through TFCAs and River Basin Organisations.
- Cost-effective social media based digital monitoring (dMRV) system for tree custodians

K2C CATCHMENT INVESTMENT PROGRAMME (CIP)

A Catchment Investment Programme (CIP) is a structured approach to financing and coordinating NbS that restore catchment health, secures water supply, and creates green jobs.

The K2C Catchment Investment Programme

- The K2C Catchment Investment Programme (CIP) was launched in 2020 through a partnership between the Kruger to Canyons Biosphere Region NPC, The Nature Conservancy, and Conservation South Africa.

The CIP **employs two complementary NbS** – that tackle the root causes of degradation



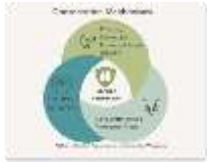
Grazing Best Management Practices

- Restores 10,559 ha of overgrazed grasslands through rotational grazing and rangeland stewardship.
- Increases vegetation cover, reduces erosion, and improves water infiltration.
- Improves livestock health and income for ~200 communal herders.



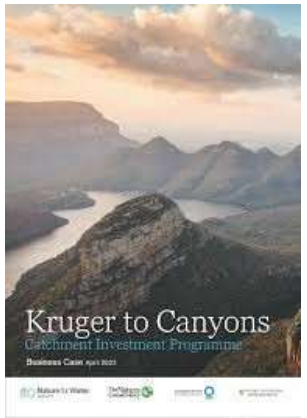
Alien Invasive Plant Clearing

- Targets 63,206 ha of the catchment dominated by pine and eucalyptus species.
- Removes species that consume up to 60% more water than indigenous vegetation.
- Increase annual average streamflow at the catchment outlet by 39%, equivalent to 80 million m^3 of additional water annually.



This is further underpinned by additional **functions that enhance NbS**:

- **Protected Area Expansion – mechanism to secure investment**
- **Convening and governance role – illegal mining**



Strong science based Business case provides the foundation for the development of the CIP

Some thoughts to reflect on

This is a long haul

Financial mechanisms with a ROI based on NbS will take time to build – in the interim other funders/investors are needed to plug the gap and they can help de-risk structures – 10-30 year timeframes

Keep it Simple

The space is new and scary for investors. We need to stick to elements they already know. We need to engage and work together – collective action

Building a track record

Building a track record that shows on the ground impact is key – we need to implement at bigger scales and we need to build the systems to handle this and be accountable

Bottom-up Design

We need to understand the landscape and start from there. Off the shelf structures don't work. We don't need more large scale scoping exercises.

M&E systems MRV

We need a stronger focus on measuring impacts and tracking them – they must be robust and defensible, but they are very expensive

Obstacle: Water users

Private sector already paying – need for government to ensure levies reach their intended targets



Local Impact

Unlocks 80 million m^3 in additional streamflow p.a., safeguards R7 billion in agricultural yields, and protects 4,700+ direct jobs.

Regional-scale Potential

A proven model that can be scaled across all six catchments in the K2C Biosphere and replicated nationally.

Shape South Africa's Sustainability Finance Landscape

A chance to be part of a catalytic structure blending concessional, public, and commercial capital to deliver long-term outcomes.

SADC Targets

2025 Multi-Stakeholder Dialogue Background Paper Reflections

- Water from various sources must be developed before use, and access to water remains a challenge in the SADC region
- The role of WEF in corridor development must expand to cover operations, management and people's livelihoods
- Wealth creation must consider downstream impacts and strike a balance
- Headwater ecosystem protection must be prioritised as an anchor for water, energy and food security

Role of water in regional economic corridor development

- Supportive SADC water policies exist for corridor development (governance, climate-resilient infrastructure, regional cooperation, financing, gender inclusion, research and capacity)
- Linking RBOs to corridors requires source-to-sea thinking, transboundary infrastructure support, basin-wide mandates and a water-for-peace agenda

Global Targets

Sustainable Development Goals (SDGs): water and land

- **SDG 6 – Clean Water and Sanitation:** safe drinking water, sanitation and hygiene for all; better water quality and efficiency of use; integrated water resources management, including transboundary cooperation; protection of water-related ecosystems
- **SDG 15 – Life on Land:** conserve and restore terrestrial and inland freshwater ecosystems, combat land degradation and desertification, and protect mountain ecosystems (headwaters)
- **SDG 2 – Zero Hunger:** sustainable agriculture and food production depend on secure water and healthy land
- **SDG 7 and SDG 13 – Energy and Climate Action:** water-energy-food linkages and climate resilience

Looking ahead – what will be our collective contribution?

- SDG targets run to 2030 and will be updated following the Post-2030 UN Agenda review meeting in 2027

The global freshwater challenge

Freshwater ecosystems are declining faster than any other ecosystem on Earth, including forests

THE CHALLENGE

2 billion+

people depend directly on freshwater systems

80%+

fall in large freshwater animal populations since 1970

22%

of the world's wetlands lost since 1970

THE RESPONSE: THE FRESHWATER CHALLENGE

300,000 km

of degraded rivers to restore by 2030

350M ha

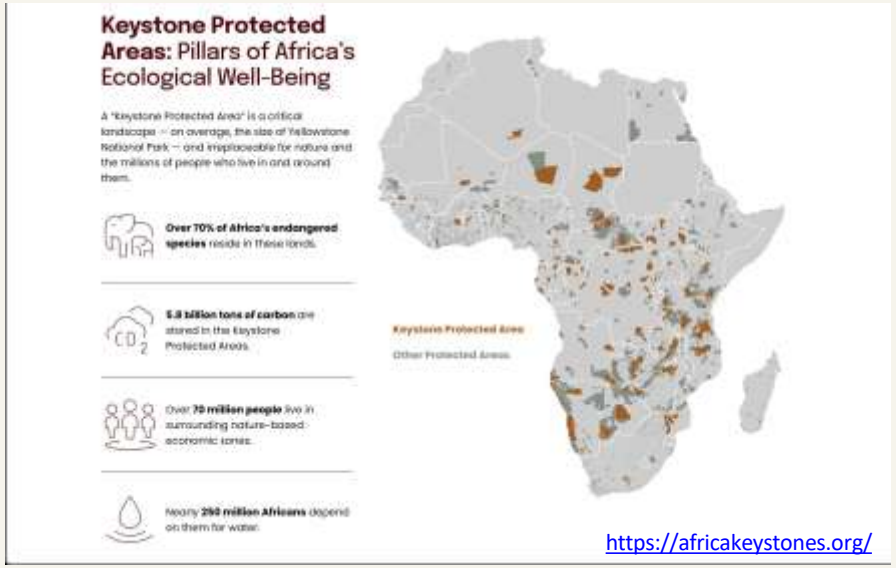
of degraded wetlands to restore by 2030

50+

countries and the EU have joined since the March 2023 launch

Funding gap: reversing wetland loss is estimated to need US$275–550 billion a year

Sources: IWMI, The Freshwater Challenge explainer; Water and Nature, About the Challenge



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Regional Systems



Regional Systems



Key takeaways

1. **Cooperation is now being formalised & strengthened**
2. **Joint work is organised and operational**
3. **Nature-based solutions deliver measurable water gains**
4. **Convergence of information systems required and targeted toward regional goals that RBOs & TFCAs can share**
5. **Finance is the enabler, and it is a long haul**
6. **Global and regional targets set the frame**









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