M&E, Knowledge Management and Human Capital



SADC TFCA NETWORK

Investing in People, Nature and Partnerships

ANNUAL MEETING 2026

9 - 13 NOVEMBER 2026

SKUKUZA KRUGER NATIONAL PARK

GREAT LIMPOPO TRANSFRONTIER CONSERVATION AREA





forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Global Gateway

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DEUTSCHE ZUSAMMENARBEIT

Implemented by:
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

IUCN ifaw

South African NATIONAL PARKS

M&E, Knowledge Management and Human Capital

- SADC TFCA M&E Framework tool development update.
- Citizen science and technology for monitoring.

Lead: **Teddy Dlamini**, Eswatini

Presenters:

Vimbai Chasi - SADC M&E Specialist

Mbali Mashele - UNESCO

Quentin Jungers - NaturAfrica

Urcel Kalenga - NaturAfrica

Martin Nyoro - RCMRD

Steve Johnson - GrowthLeaders ASAPAfrica



Progress with Implementation of SADC TFCA M&E Framework

From landscape stories to the birds-eye view

November 12, 2026

Co-funded by the European Union

Implemented by: giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

A JOURNEY OF PROGRESS



The journey so far, each step enabling a more meaningful analysis

1. Can we get the data?
2. What is it telling us about this landscape?
3. What happens when you stop reading them one at a time and look at them from above?

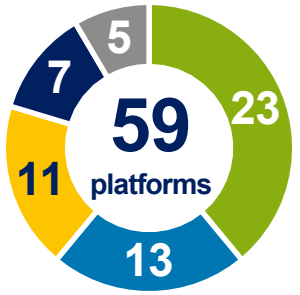
What does the birds-eye view show that no single landscape can show on its own?

Co-funded by the European Union

WHAT CAN WE CELEBRATE?



Functional platforms by type



Thematic technical working groups	23	39%
Joint management & coordination	13	22%
Task teams & task forces	11	19%
Political & ministerial oversight	7	12%
Stakeholder & community forums	5	8%

So what?

Functional platforms exist at every level, transboundary, national and community and are led by technical specialists.

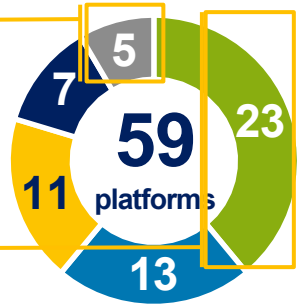
Gateway
Co-funded by the European Union
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giz

WHERE ARE THE GAPS WE IDENTIFIED?

1. Live with wildlife
2. Hold the surrounding land
3. Live with the consequences of conservation

1. 14 of the 23 belong to one TFCA
2. Do we make decisions in the platforms?

Functional platforms by type



Thematic technical working groups	23	39%
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Global Gateway

Co-funded by the European Union

german cooperation

giz

WHERE ARE THE GAPS WE IDENTIFIED

Focus areas of stakeholder engagement strategies



Decision-maker engagement	3	25%
Community outreach	3	25%
Participatory planning	2	17%
Park plan engagement	2	17%
Co-management agreements	2	17%

12 **Stakeholder engagement strategies**

- Transboundary, 7 (58%)
- National and park level, 5 (42%)

So what?

The gap is strategy, not structure: 59 platforms, 12 engagement strategies, half of them from KAZA.

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WHERE ARE THE GAPS WE IDENTIFIED

HWC management strategies by level



National, park & community level	**14**	58%
TFCA level (transboundary) KAZA 7 (TFCA-wide), Richtersveld Joint Operational Strategy 1	**8**	33%
Level not itemised	**2**	8%

Incidents of human-wildlife conflict

2 of 6 TFCAs report a count

KAZA	**6,326**	plus 146 in OECMs
MAZA	**647**	Vwaza Marsh (Malawi only), 2023-2025
GLTFCA	n/a	155 poisoning cases 2008-2019
MDTP	n/a	
KTP	n/a	
Lubombo	n/a	

So what?

Conflict is managed locally, as it should be. What the TFCA level should add is comparison, and today only 2 of 6 can count incidents. The records exist but sit in systems our focal points can't access (fix access first, then agree one recording standard).

the European Union

WHAT WOULD IT LOOK LIKE IF WE INVESTED IN EVIDENCE BASED DECISION MAKING?

Start with the decision. Then work back to the evidence.

THE DECISION	THE EVIDENCE IT NEEDS	WHERE WE ARE TODAY
Where does the next livelihood investment go?	How many people benefit, who they are, and under what conditions	We count activities, not who benefits
Which financing instrument suits which TFCA?	Budget by source, the gap, and the trade-offs of each option	Joint actions are largely funded ad hoc
What is worth scaling, and where?	Pilot results tracked the same way across TFCAs	KAZA has compensation schemes; GLTFCA is developing its own

Reinforcing all goals: joint policy and planning, engaged communities, and dedicated, resourced people to run the TFCA

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THANK YOU



LET’S ALL TAKE A STEP TO ENABLE DATA SHARING AND MORE MEANINGFUL ANALYSIS

Gateway

Co-funded by the European Union

Deutsche Zusammenarbeit

WHAT WOULD IT LOOK LIKE IF WE INVESTED IN EVIDENCE BASED DECISION MAKING?

What the birds-eye view has already let us see:

- How to strengthen our policy coordination and joint planning
- What we can build on to engage stakeholders and diversity our community of support
- How to build coordinating structures that are resourced and capacitated

We are moving towards:

- Being able to demonstrate how, and under which conditions, communities can show tangible economic benefits from transfrontier conservation initiatives
- How TFCAs can access diverse financing opportunities that are best tailored to their unique contexts, including evidence around trade offs with different development strategies
- Building a community of research and evidence to coordinate efforts and efficiently answer pressing questions about our effectiveness
- Being able to pilot, scale, and cross pollinate successful initiatives, cascading implementation across TFCAs

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GROUP WORK

Each Table represents one of the 5 goals

1. Plot the indicators into the 2x2 matrix

2. For those in the top row: how can we collect the data at the TFCA level?

3. If we could fund one shared data-collection effort next year, which indicator would you prioritise?

4. ***General question***: What needs to improve in the M&E Framework to make collection/consolidation easier?

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UNESCO Sites Navigator and Citizen Science Toolbox

SADC TFCA Network side event · 12 November 2026

Mbali Mashele
UNESCO Regional Office for Southern Africa





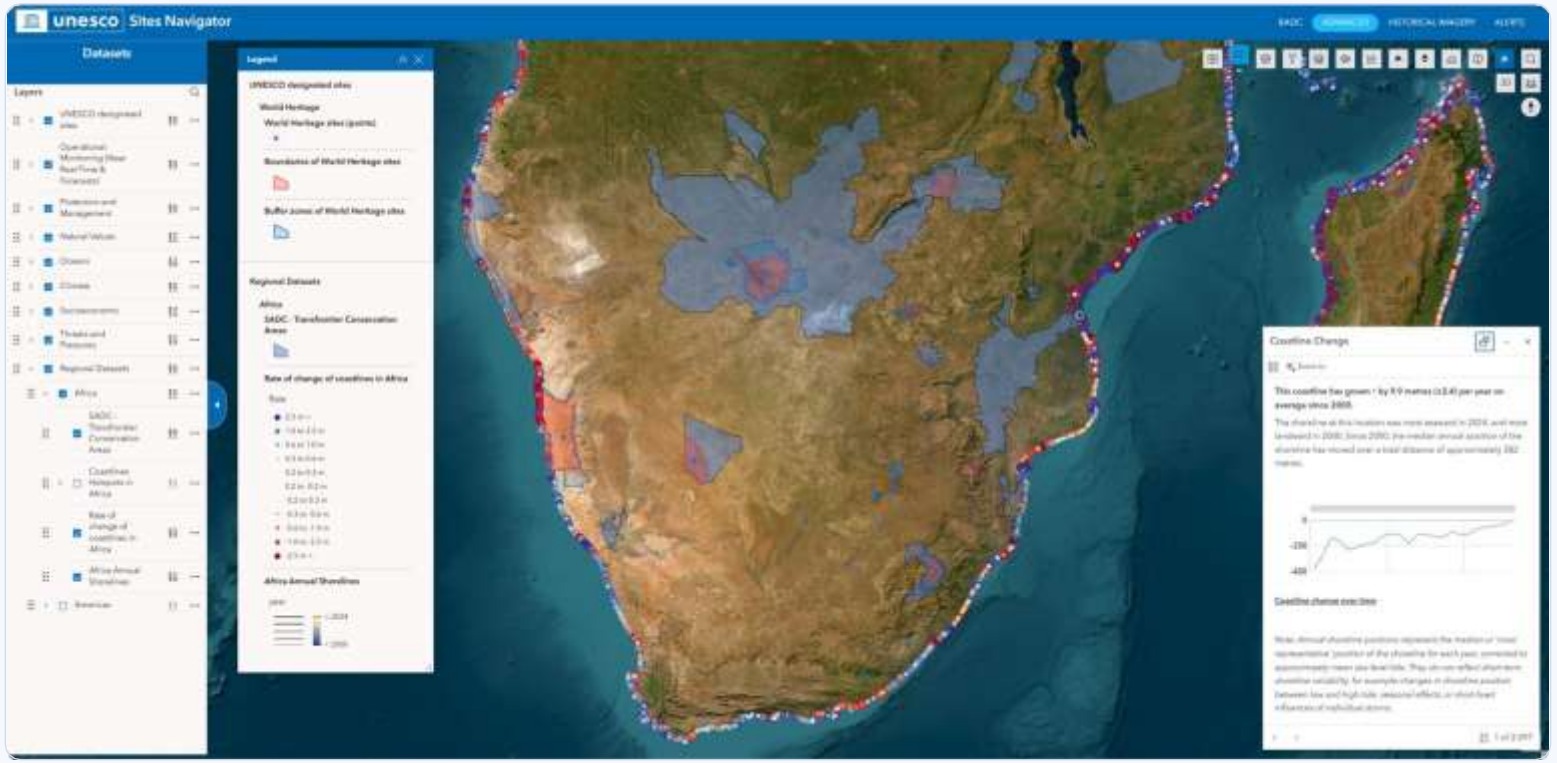




UNESCO SITES NAVIGATOR

An operational landscape management tool

Official UNESCO boundaries + almost 50 environmental datasets + near real-time satellite monitoring, in one GIS platform



Data: UNESCO boundaries + UNEP-WCMC, IUCN, NASA, ESA Copernicus etc.

Potential uses for TFCAs

- Climate risk
- Water security
- Ecosystem health
- Protected area planning
- Threat assessment
- Multiple designations

unesco.org/en/lists-designations/site-navigator

UNESCO SITES NAVIGATOR

Data sets by M&E Framework goal

● satellite / near real-time

Goal 1 · Transboundary landscapes and seascapes

Protected areas: UNESCO sites · World Database of Protected Areas · Ramsar Sites · Key Biodiversity Areas

Biodiversity: Ecosystem Integrity Index · Biodiversity Intactness Trends · Ecoregions and Biomes · Terrestrial species richness · Threatened terrestrial species · Net Primary Productivity

Forests and carbon: Global Forest Cover · Canopy height · Tree cover loss · Tree cover loss from fires · Mangrove biomass · Biomass carbon · Forest greenhouse gas net flux · Reforestation potential

Water: Surface water recurrence · Water Risk

Oceans and coasts: Coral reefs · Seagrasses · Saltmarshes · Marine species patterns · Coastline change

Monitoring: ● Sentinel-2 · ● Daily imagery (MODIS) · ● Active fires · ● Vegetation Health Index · ● Coral bleaching alerts

Goal 2 · Livelihoods and risks to communities

Hazards: Drought risk · Riverine and coastal flood risk · ● Observed flood extent · ● Streamflow and flood forecasts · ● Cyclones · ● Earthquakes · ● Storms · ● Air quality

Climate: Temperature and rainfall (2025, 2050) · Sea level trend and projections

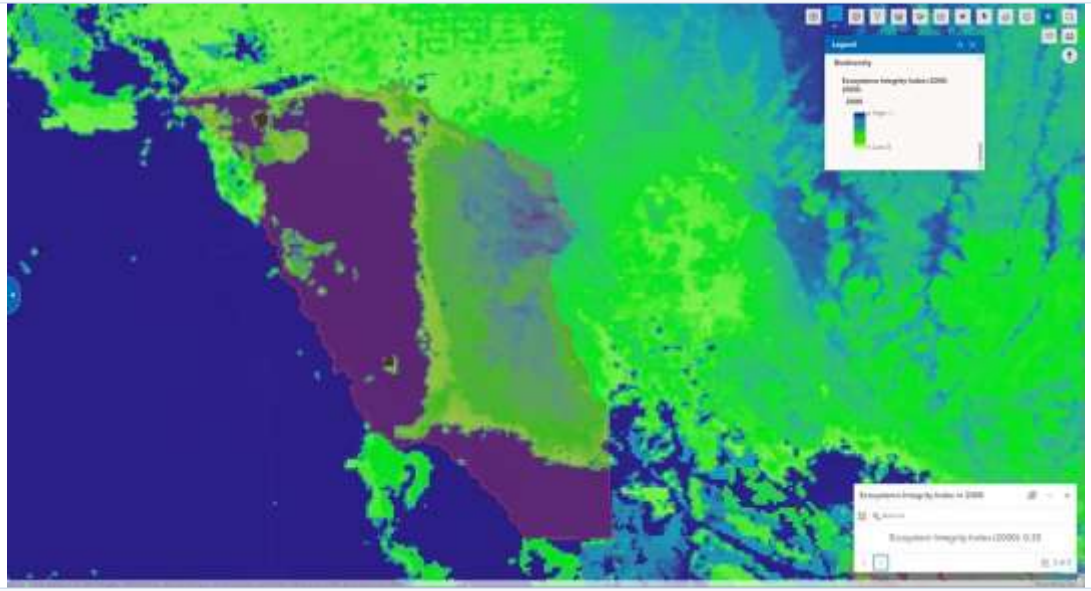
Blue economy: ● Fishing activity · Fishing effort · Ship density · Offshore infrastructure

Goal 3 · Shared across borders

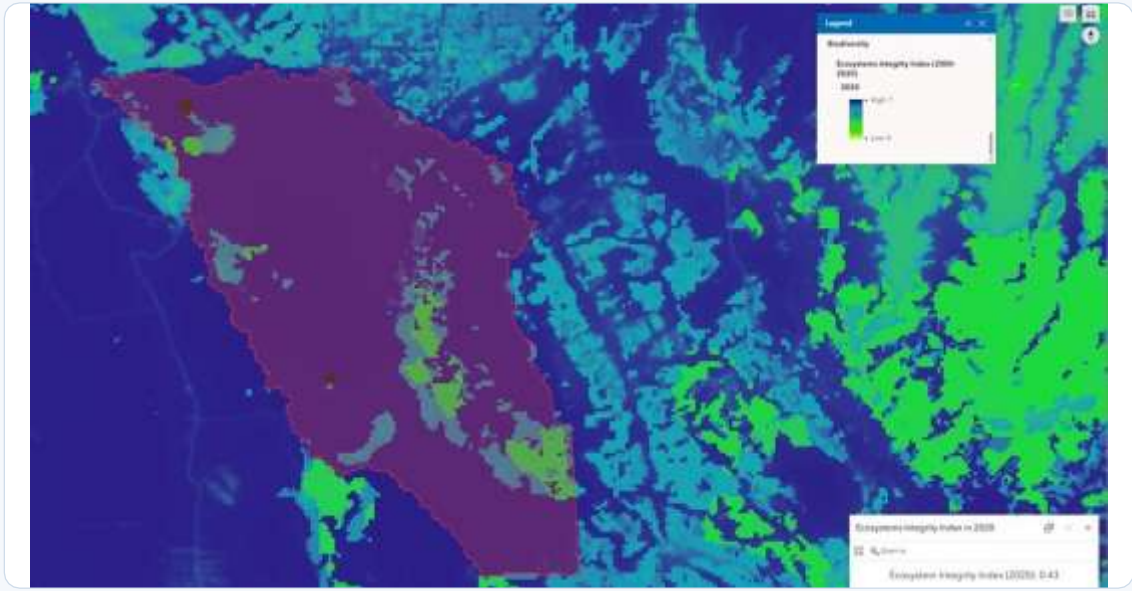
SADC TFCA boundaries · Transboundary river basins · Transboundary aquifers · Overlapping UNESCO designations

UNESCO SITES NAVIGATOR

Protected area planning and tracking ecosystem health



2000 · EII 0.35 · Noel Kempff Mercado, Bolivia



2020 · EII 0.43 · Noel Kempff Mercado, Bolivia

Protected area planning

Which designations overlap each TFCA?

Where are the ecological gaps?

Baseline for indicator 1.1a

Ecosystem health

Is ecosystem condition improving or declining?

Is restoration working?

Ecosystem Integrity Index · supports 1.2

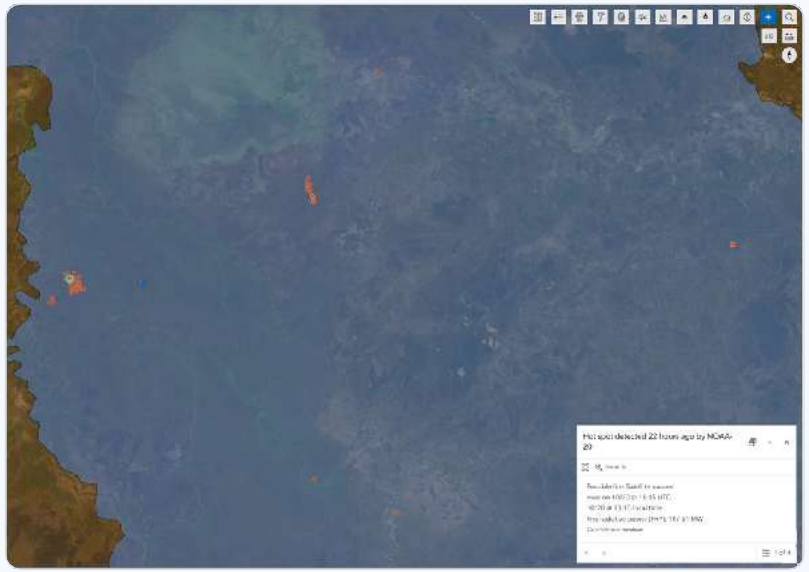
Is woodland declining?

Are wetlands shrinking?

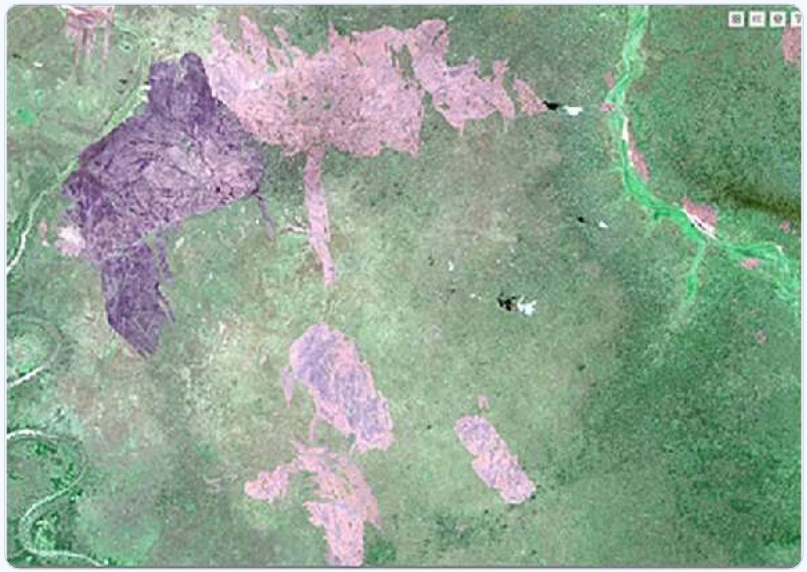
UNESCO SITES NAVIGATOR

Climate risk monitoring and early-warning alerts

Daily satellite alerts: fires, vegetation disturbance, coral bleaching, cyclones



1 · Alert: fire hotspots



2 · Confirmed: about 9 km² burnt

Boma–Badingilo, South Sudan (World Heritage in Danger), October 2026

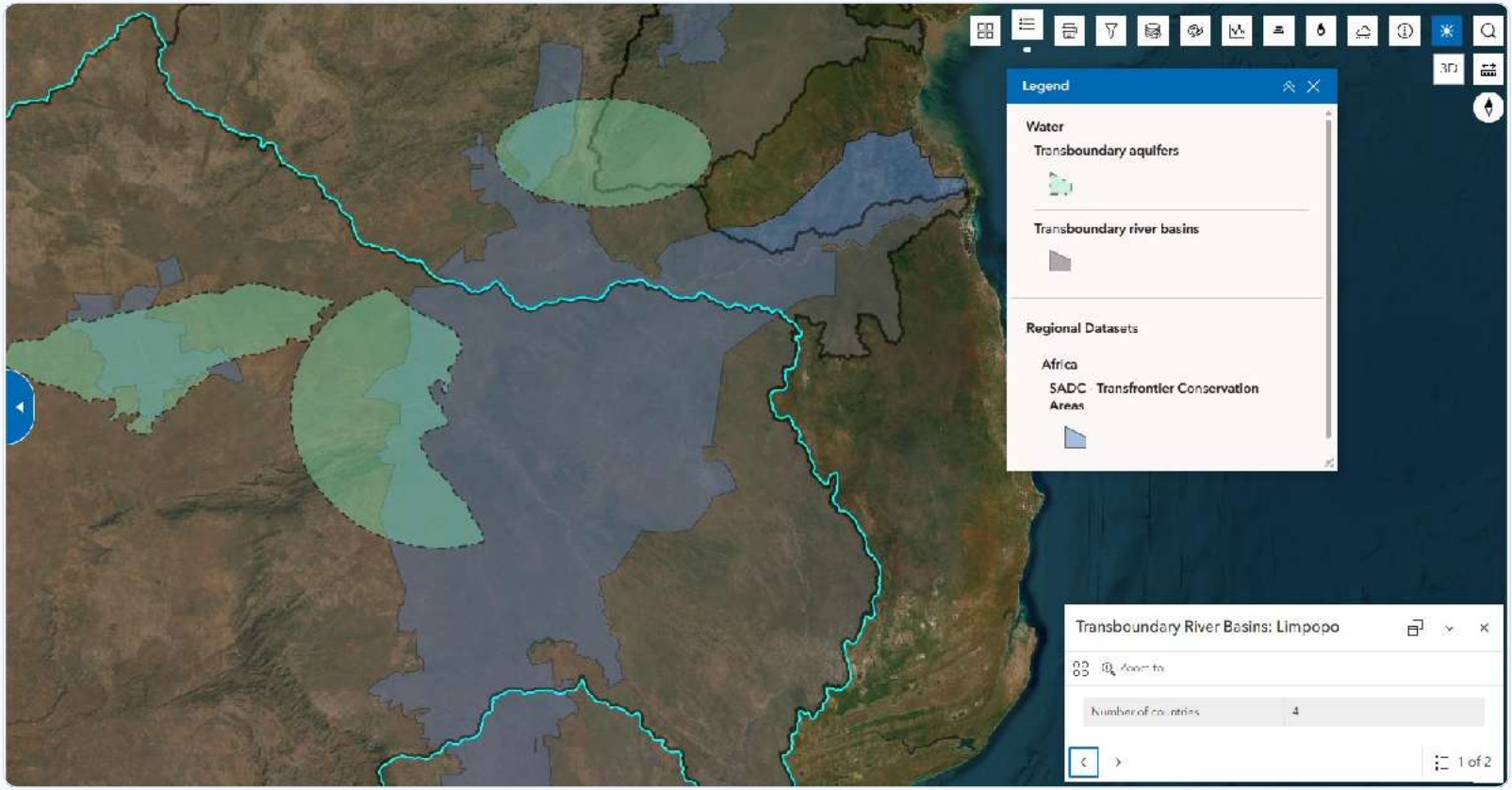
Potential uses for TFCAs

- Daily satellite alerts: Fires, vegetation disturbance, cyclones, coral bleaching
- Where are drought and floods forecasted?
- Which sites are at risk?
- Where are fires burning now?
- Plan ahead, respond faster, one picture across borders

Supports indicators 1.2 and 1.5b

UNESCO SITES NAVIGATOR

Water security for people and wildlife across borders



Limpopo basin: shared by four countries and two TFCAs

Potential uses for TFCAs

- Which rivers and aquifers are shared across borders? Transboundary basins and aquifers
- Which wetlands and pans dry out in drought? Surface water recurrence, Drought risk

CITIZEN SCIENCE

Be Resilient Citizen Science Toolbox

Now scaling up through **Citizen Science as a Tool for Landscape Governance in the SADC Region** (2025–2028)

Monitoring to date

7.8k
water-quality observations

50
rivers and streams

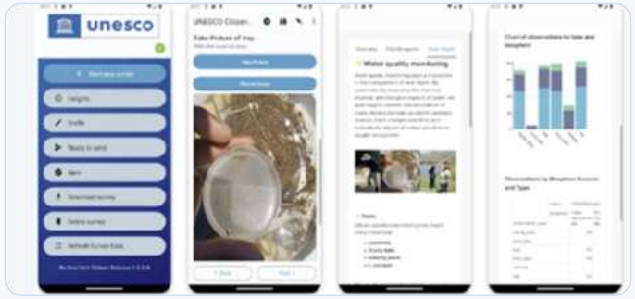
47
citizen scientists

6
biosphere reserves

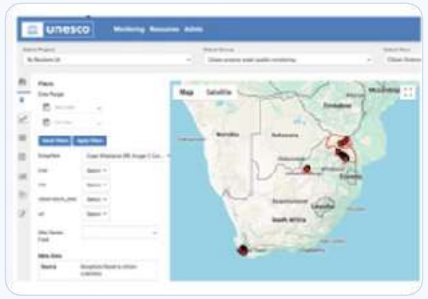
Kogelberg waste baseline (May–Sep 2026)

3,509
river waste items collected so far

69
dumpsites mapped



Mobile app



Visualisation dashboard



Biosphere reserves as data partners



Example: Kruger to Canyons Biosphere Region, 2025–2026

Protected areas — 1.1a/b
3,584 ha reserves · 5,445 ha OECMs

Species — 1.4
229,470 observations · 9,246 species

Freshwater — Gap 1.2.1
14 rivers monitored

Livelihoods — 2.1
24 savings groups · 233 jobs

Governance — 3.2a / 3.3
Traditional authorities, departments, municipalities

SADC INDICATORS

Where UNESCO data feeds the TFCA M&E Framework

Goal	M&E indicator	UNESCO data
1	1.1a/b Protected areas and OECMs	UNESCO Navigator; BR data (PR's & MP's)
1	1.2 Change in natural landscapes	UNESCO Navigator - EII, tree cover loss, fire alerts,
1	1.3 Integrated land use plans	UNESCO Navigator, BR & WH management plans
1	1.4 Key species populations	UNESCO Navigator, BR species records, CS
2	2.1 Income-generating activities	BR livelihood projects, (PR's & MP's)
2	2.3b Human-wildlife conflict	Citizen Science ToolBox (Potential)
3	3.2a / 3.3 Governance and dialogue	BRs and WHs
5	5.4 / 5.5 Indigenous knowledge; people trained	BRs and WHs
1	Gap: freshwater (Output 1.2.1)	Water related data layers + 7.8k observations
1	Gap: climate risk	Alerts, forecasts (Flood, drought, fire, burnt area

NATURAFRICA

Update on NaturAfrica

Quentin Jungers, B4Life Facility

Side event “A partnership for data: mapping data partners for a shared SADC TFCA M&E system”

12 November 2026



NaturAfrica, the EU flagship for biodiversity in Africa

EUR 1.65 bn

total commitment

34

Key Landscapes for Conservation and Development (KLCDs)

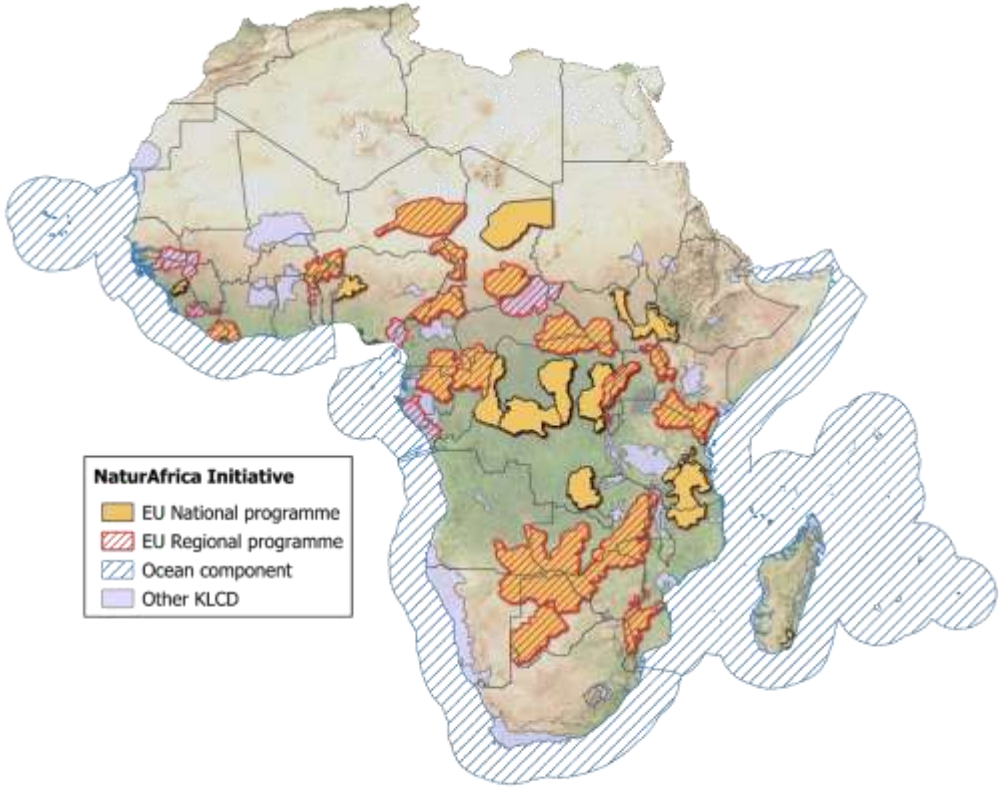
4.3 M km²

covered by the Phase II landscapes

94.3 M

people living in and around the landscapes

- Announced at the IUCN Congress (Marseille, 2021), launched at CBD COP15 (Montréal, Dec. 2022)
- Global Gateway flagship, Team Europe approach with EU Member States
- Three pillars in each landscape: conservation, green economy, inclusive governance



NaturAfrica landscapes (EU regional, EU national, ocean components)

Regional programme: Phase I running, Phase II in preparation

Phase I

EUR 160 M

AAP 2022, actions launched from 2023

Grants to landscape operators in the KLCDs, plus a transversal component (regional technical assistance, support to RECs).

Phase II

EUR 160.1 M

MAAP 2026-2027, incl. EUR 5.1 M from Denmark

SO1: protect and restore biodiversity while supporting inclusive green economy.
SO2: stronger, fairer governance at landscape, national and regional level.

Phase II timeline (indicative)

2026

Preparation and design

2027

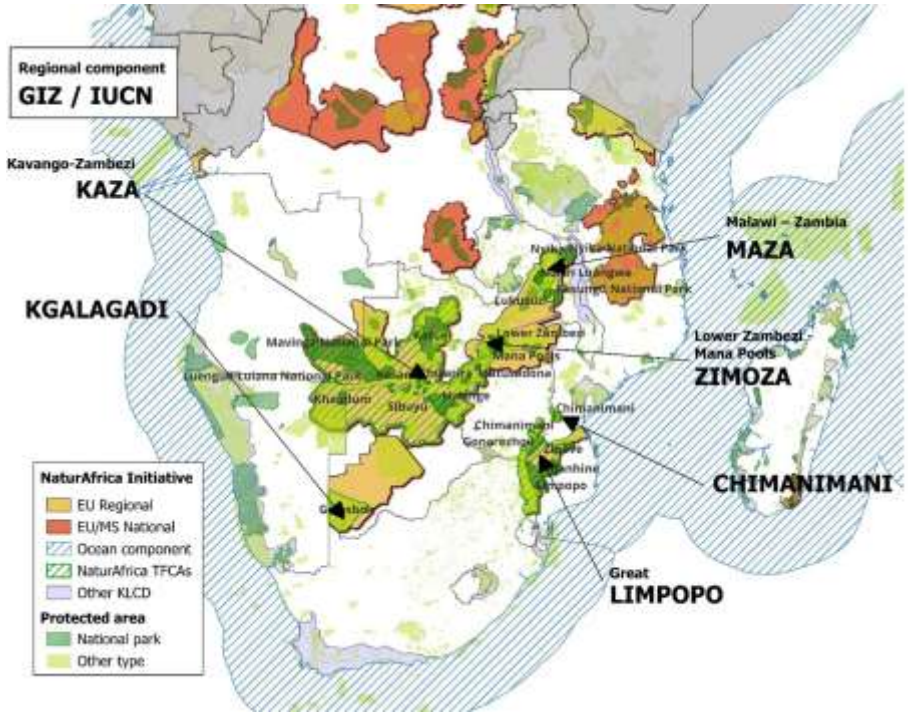
Calls for proposals

2028

Contracts start (N+1)

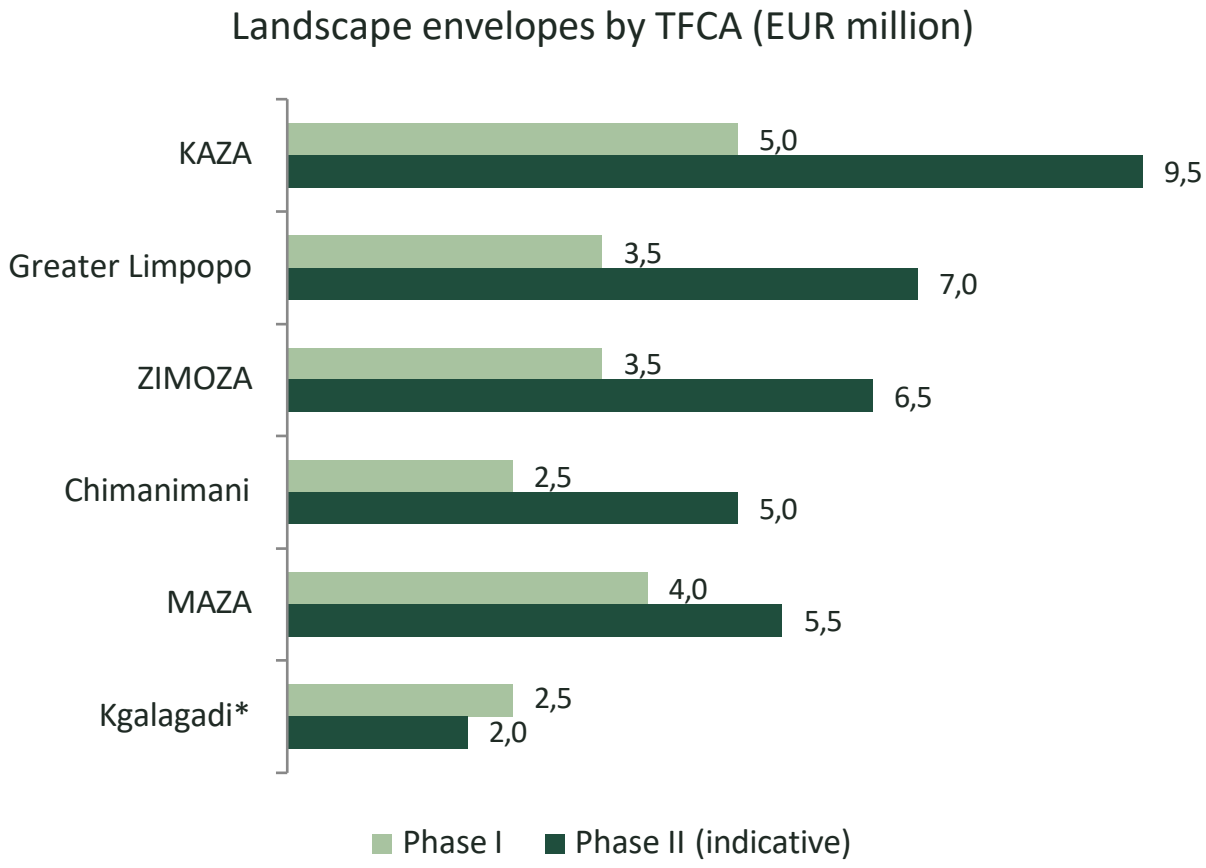
Phase II builds on the 26 Phase I landscapes; it is not an automatic renewal: each landscape was screened (ecological value, other funding, EU added value, risk).

NaturAfrica in the SADC TFCAs



Phase I, three coordinated components

- Grants to operators in 6 priority TFCAs
- SADC TFCA Financing Facility (IUCN-ESARO)
- GIZ support to the SADC TFCA unit and M&E



*Phase II total for the six TFCAs: about EUR 35.5 M (indicative). *Kgalagadi: Phase I via the TFCA Financing Facility; Phase II amount tentative.*

Who does what

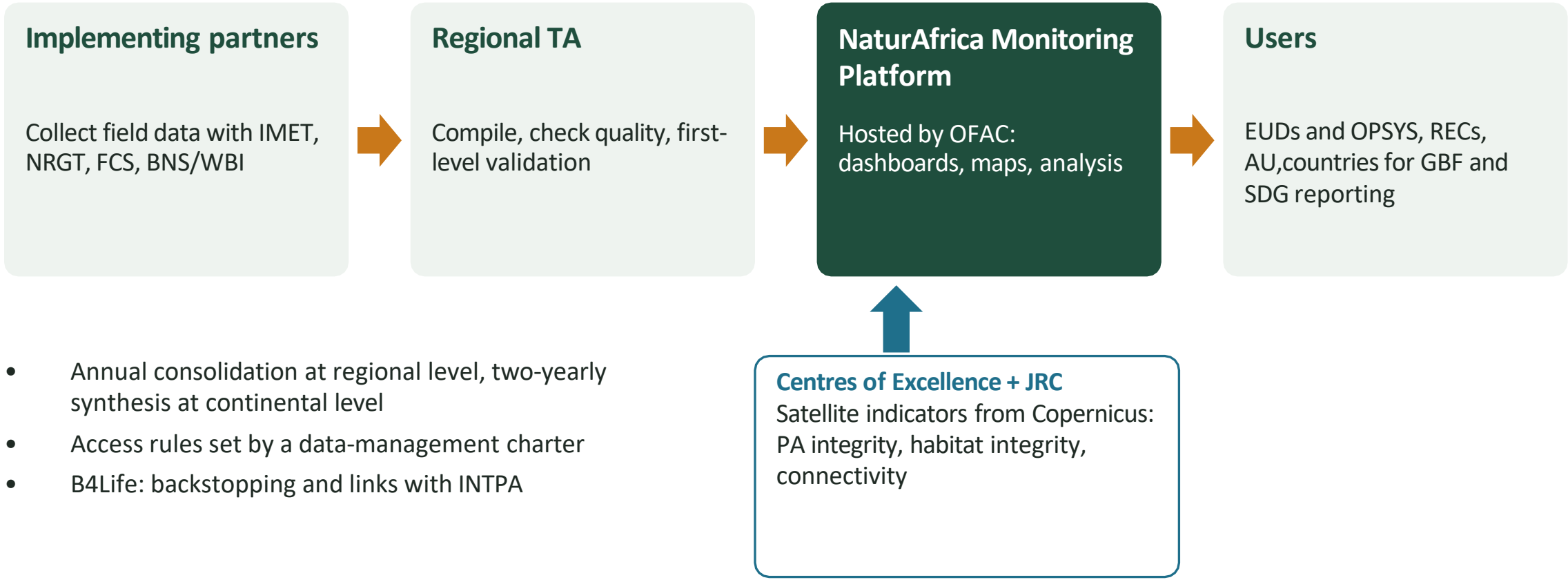
Actor	Who	Role in monitoring and data
Implementing partners	Mostly conservation NGOs co-managing PAs with national authorities	Implement; collect and report field data
Regional technical assistance	West & Central: AGRECO · East: IUCN-ESARO · Southern: GIZ (SADC TFCA) and IUCN TFCA-FF	Methodological support, first-level data validation
Regional Centres of Excellence	OFAC (Central), OBAPAO (West), RCMRD (East & Southern), with EC JRC	Earth-observation indicators, data analysis, NaturAfrica platform
EU Delegations & INTPA	Lead EUD for SADC: Botswana	Contracts, OPSYS reporting, programme oversight
B4Life Facility	EU-funded technical assistance to INTPA	Backstopping on formulation, contracting, M&E
RECs & African Union	SADC, EAC, COMIFAC, ECOWAS/UEMOA; AU	Policy harmonisation, transboundary cooperation

Mandatory core indicators, the same in every landscape

Conservation		Green economy		Governance	
Management effectiveness of PCAs	Field IMET	Investment in green projects by MSMEs	Field	Participatory governance of natural resources	Field NRGT
PA territorial integrity	Satellite EO	Green jobs created, by sex (EURF 2.13)	Field	Conflicts linked to natural resources or gender	Field
Natural habitat integrity	Satellite EO	Food security	Field FCS	Human well-being	Field BNS / WBI
Connectivity of PCAs	Satellite EO			People trained on human rights (EURF 2.7)	Field

11 mandatory indicators, written into each contract's logframe. Optional ones include wildlife population trends and sustainable financing.

How the data flows



- Annual consolidation at regional level, two-yearly synthesis at continental level
- Access rules set by a data-management charter
- B4Life: backstopping and links with INTPA

Main gap: very little field data has reached the platforms so far, and in Eastern & Southern Africa the data workflow between RCMRD, GIZ, IUCN and operators is not yet set.

NaturAfrica indicators and the SADC TFCA M&E goals

Goal 1 Landscape & seascape management	Management effectiveness (IMET), wildlife trends, PA integrity, connectivity, habitat integrity
Goal 2 Livelihoods	Green investments by MSMEs, MSME performance, food security, sustainable use of resources
Goal 3 Governance & partnerships	Participatory governance (NRGT), communities in conservation, peaceful governance, connectivity
Goal 4 Sustainable finance	Governance indicators; closest match: sustainable financing (optional)
Goal 5 Capacity building & skills	Governance indicators

Indicative mapping of SADC TFCA M&E goals to NaturAfrica core indicators (B4Life, Kasane, Nov. 2024), to be validated with SADC.

Where a partnership for data can start

1

Reuse what NaturAfrica TFCA projects already report

IMET, NRGT, FCS, BNS/WBI, green investments and jobs: no second collection by TFCA coordinators.

2

Use the satellite indicators

PA integrity, habitat integrity and connectivity are computed for all landscapes by the Centres of Excellence and JRC (RCMRD for this region).

3

Agree the data route in Southern Africa

Who sends what to whom between operators, GIZ, IUCN TFCA-FF, RCMRD and the SADC TFCA unit.

4

Use the Phase II window

New contracts (calls 2027, start 2028) will again include the mandatory indicators: align them with the TFCA M&E framework now.

Thank you

Resources

- NaturAfrica indicator guidelines and methodological sheets: Capacity4Dev library
- KLCD viewer: klcdviewer.visioterra.fr
- NaturAfrica Monitoring Platform: next presentation (OFAC)
- Contact: Quentin Jungers, B4Life Facility · quentin.jungers@agreco.be

SADC TRANSFRONTIER CONSERVATION AREAS PROGRAMME

Annual Network Meeting 2026

NaturAfrica platform

From field data to landscape indicators for conservation and development



Urcel Kalenga · Technical Assistant, OFAC-CE project

"Investing in People, Nature and Partnerships: Scaling Impact Across SADC TFCAs"

cirad

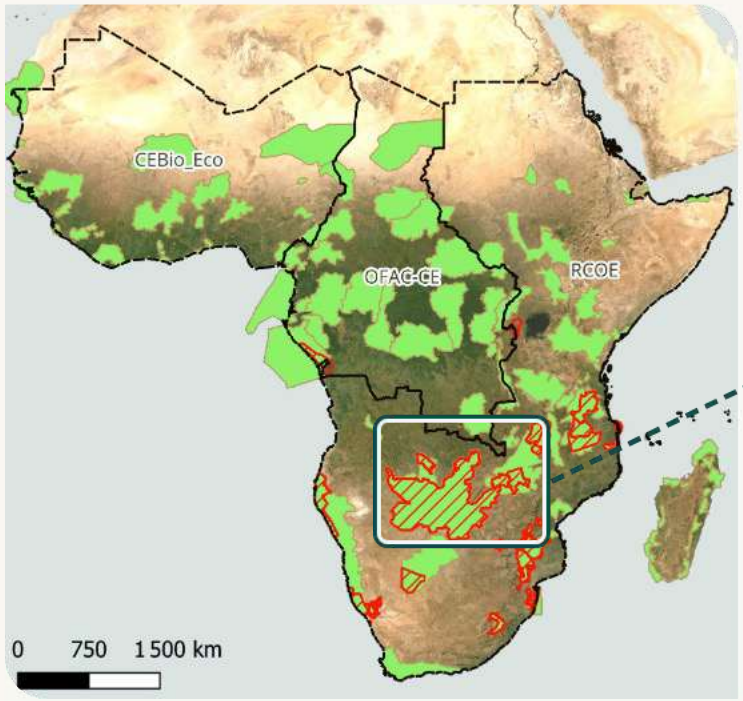
LANDSCAPE ALLIANCE

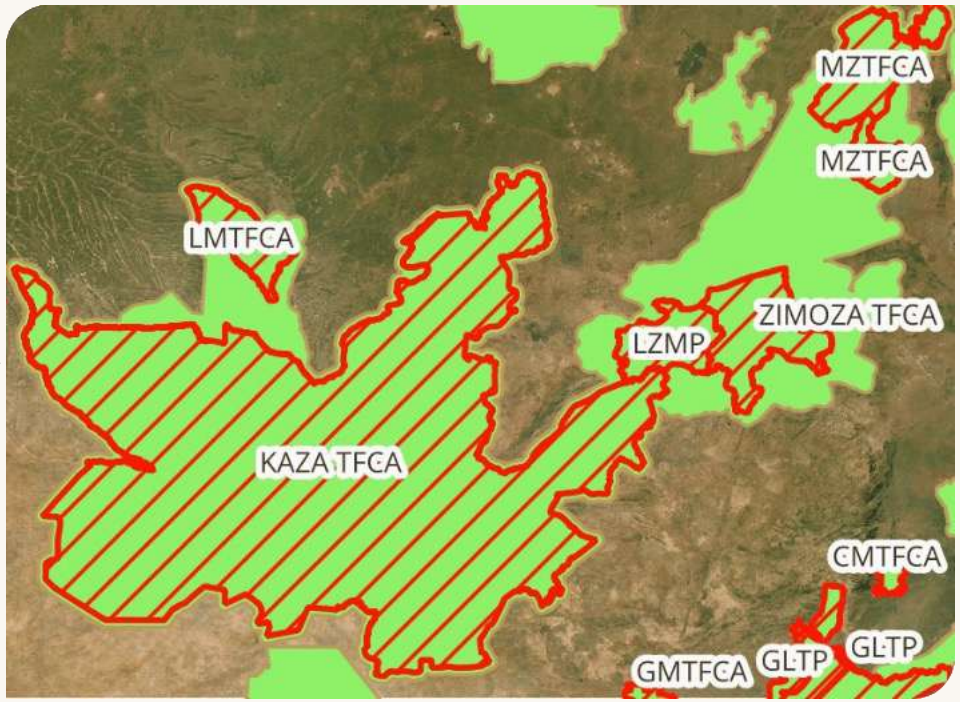
CIFOR & ICRAF in action

Beta

UCLouvain

The NaturAfrica programme





- Centres of Excellence
- Key landscapes (KLCDs)
- SADC TFCAs

ZOOM

Greater KAZA – Lower Zambezi – ZIMOZA – MAZA

One landscape, several transfrontier conservation areas.

● **Mandatory** ◌ *Optional*

Indicators reported per landscape

Conservation

- PA management
- Territorial integrity
- Habitat integrity
- Connectivity
- *Wildlife trends*

Green economy

- Food security
- Green jobs
- *Sustainable use*
- *Competitiveness & CSR*

Governance

- Participatory governance
- Peaceful governance
- Well-being
- Human rights training
- *Local engagement*
- *Sustainable financing*

Operational data flow

1 · COLLECT

2 · PREPARE

3 · INTEGRATE

4 · ANALYSE & DECIDE

Field surveys & studies

Operators

Operator reports

Operators

Geospatial indicators

JRC & UCL · RCMRD · OFAC

Regional Centres of Excellence

CEBio_Eco · OFAC-CE · RCOE

NaturAfrica TA
Data preparation & formatting

Regional database

Data encoding

Back via APIs

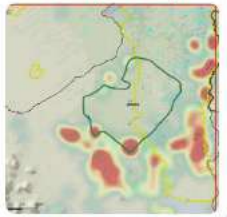
Sentinel-based geospatial indicators

NaturAfrica platform

Data encoding & indicator computation

Landscape dashboards

Hotspot map



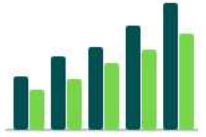
Food security



Management (IMET)



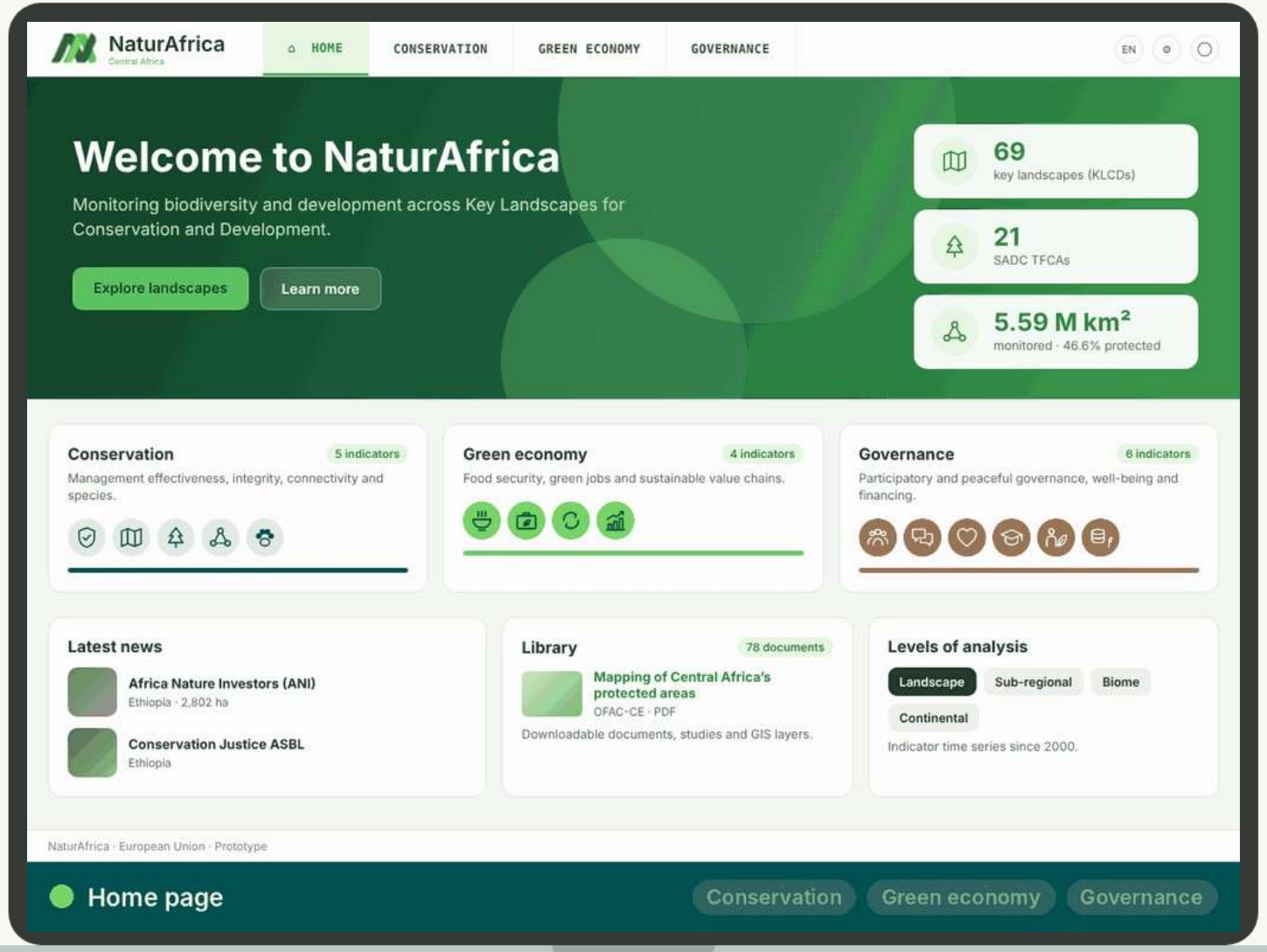
Trends



Decision support

- Track progress
- Compare landscapes
- Feed SADC TFCA M&E

The NaturAfrica platform



● Prototype available

Four levels of analysis

Landscape · Sub-regional · Biome · Continental

Three thematic pillars

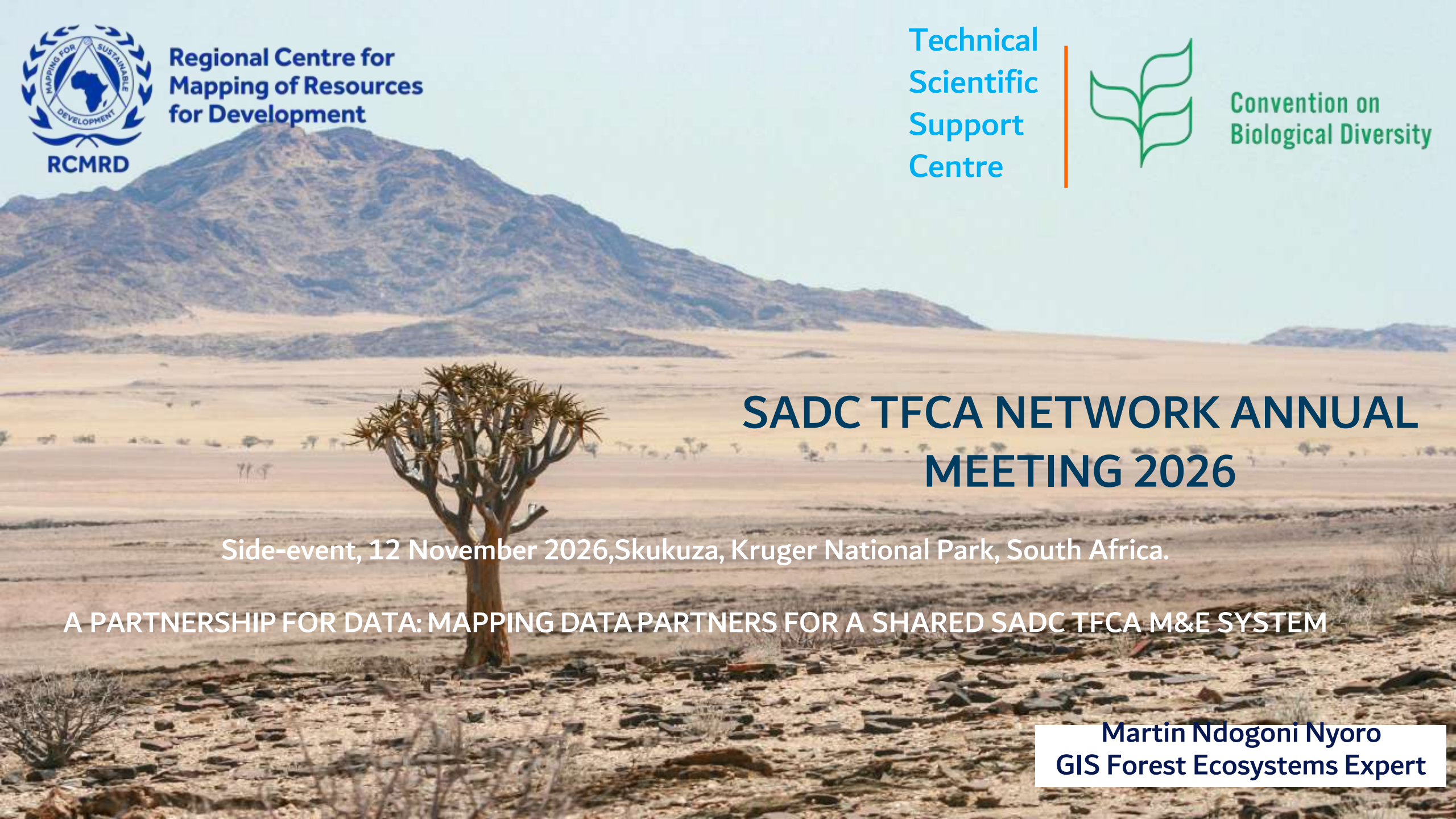
Conservation · Green economy · Governance

Data governance · to be defined

Operators → Technical assistance → Centres of Excellence → Continental platform

Who shares what? · Who accesses what?

Next step Let's build the platform together!



Regional Centre for Mapping of Resources for Development

RCMRD

Technical Scientific Support Centre

Convention on Biological Diversity

SADC TFCA NETWORK ANNUAL MEETING 2026

Side-event, 12 November 2026,Skukuza, Kruger National Park, South Africa.

A PARTNERSHIP FOR DATA: MAPPING DATA PARTNERS FOR A SHARED SADC TFCA M&E SYSTEM

Martin Ndogoni Nyoro
GIS Forest Ecosystems Expert

About RCMRD





African Union & United Nations Economic Commission for Africa

EST 1975

RCMRD

Inter-Governmental Organization, based in Nairobi, Kenya

The CBD Technical and Scientific Cooperation Mandate

12 Countries Covered

Core Functions

- To promote and facilitate, on a demand-driven basis, technical and scientific cooperation and technology transfer among Parties
- To provide a "one-stop service centre" for Parties to biodiversity-related conventions, indigenous peoples and local communities, women and youth organizations, and other relevant stakeholders to access technical and scientific knowledge, expertise, tools and other resources
- To facilitate knowledge sharing and organizational learning
- To strengthen capacities of regional, subregional and national institutions to facilitate technical and scientific cooperation with an emphasis on science, technology and innovation

Botswana Burundi Comoros Eswatini Ethiopia Kenya Lesotho Malawi Mauritius Namibia

Rwanda Somalia South Africa South Sudan Sudan Seychelles Tanzania Uganda Zambia Zimbabwe

Comoros Eswatini Ethiopia Kenya Madagascar Mauritius

Rwanda Somalia South Sudan Tanzania Uganda Zambia

Regional Centre of Excellence (RCoE) for Biodiversity, Forests and Seascape Ecosystems Management

Target 3

- PCAs Data Updates in Eastern and South African Region (ESA)
- Protected Area Management Effectiveness Assessments (PAME)

Targets 20, 21 and 23

- Capacity Building and Technological Tran
- Knowledge Products- Map Book, BOESA,
- Policy Briefs

RCoE-ESA

RCMRD

Geospatia
l Tools
an
Services

- Capacity Needs
l

Other Programs

Support to the East African Community (EAC) to Facilitate and Coordinate Transboundary Management of Shared Resources/

RCoE-ESA | Global Gateway | Funded by the European Union | RCMRD | LANDSCAPE ALLIANCE

Data Governance And Information Systems

1. Mozambique Policy Dialogue

Data Governance Framework: brought together institutions dealing with biodiversity data and community representatives (ReGeCom).



2. Comoros Data Governance Workshop

Framework workshop on the effective management of biodiversity, marine seascapes and forest ecosystems (led by LA).





3. 2026 Regional Geospatial Forum

Brought together youth, women and Indigenous Peoples & Local Communities from 24 countries in the ESA region on using spatial information for KMGBF implementation, incl. Targets 21, 22 and 23, strengthening the knowledge-to-decision pathway.





4. Policy Brief

Strengthening Biodiversity Data Governance in Eastern & Southern Africa. Four priority actions:

- National data governance frameworks with clear institutional roles
- Centralized data repositories across sectors
- Formal inter-agency data sharing agreements
- Standardized methodologies & metadata aligned with international frameworks

Thank you

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https://rcoe-geoportal.rcmrd.org/

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Funded by the European Union

RCMRD

LANDSCAPE ALLIANCE
CIFOR & ICRAF in action

mnyoro@rcmrd.org

ASAP Africa

Expanding frontiers of data collection for conservation and sustainable development

SADC TFCA Network Conference 2026

Skukuza Camp, Kruger National Park, South Africa

Steve Johnson

Director, Africa

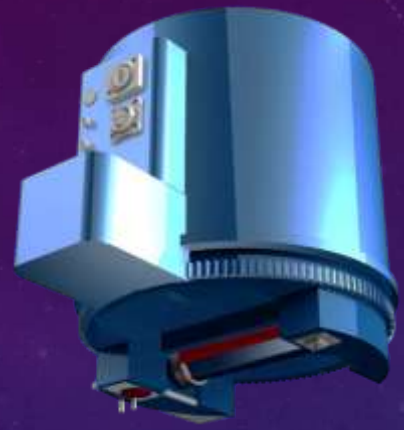
ASAP-Africa

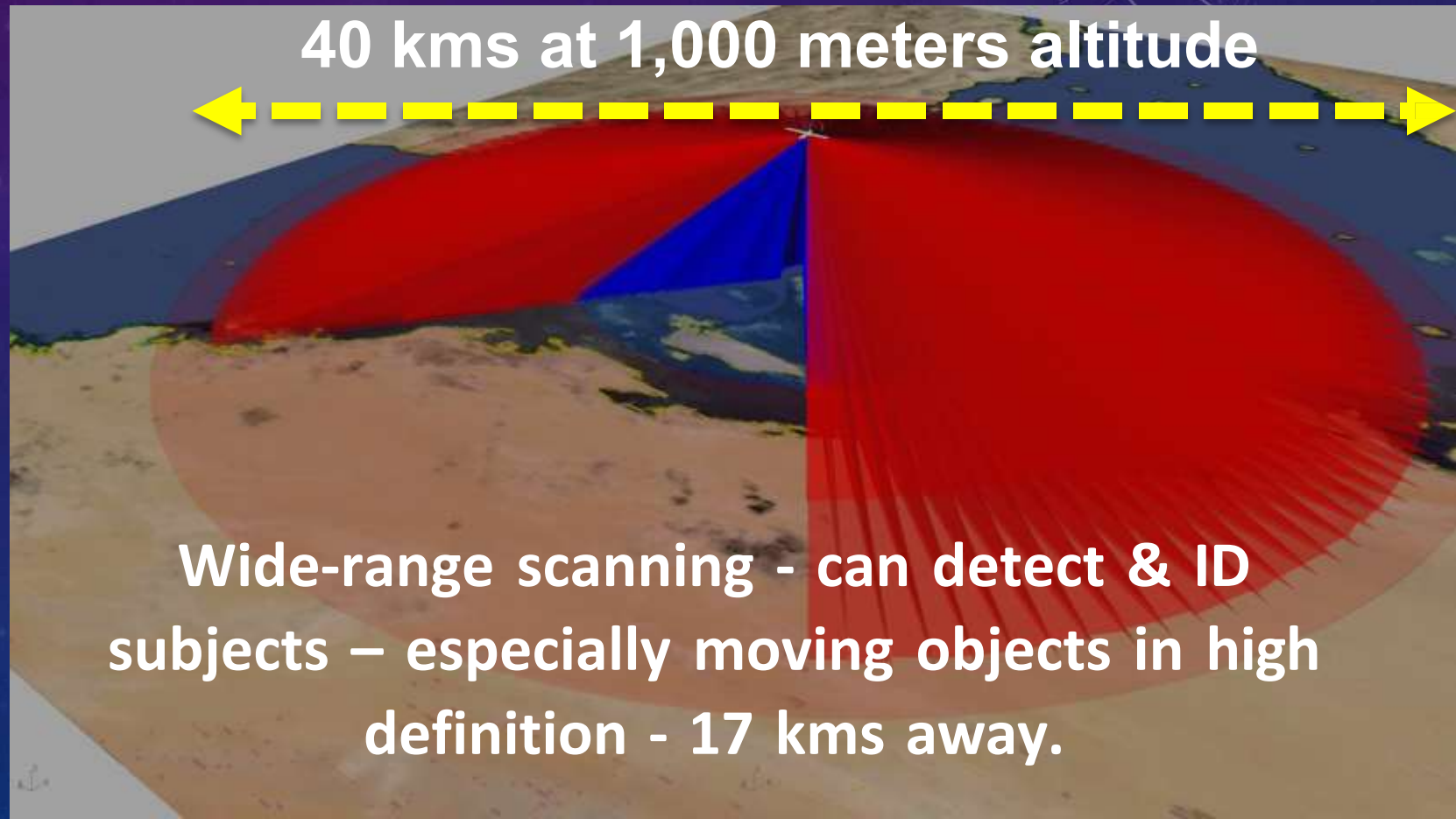
Electro-optical sensor system

An array of multi-spectral sensors combined with on-board computer - can collect a wide range of data – day and night & programmed to meet client needs.

Positioning

- Static – on towers;
- Under tethered Aerostat airship up to 1,000m;
- Under Stemme hybrid-glider aircraft; or
- Eventually Airships







Aircraft or Stemme hybrid aircraft-glider

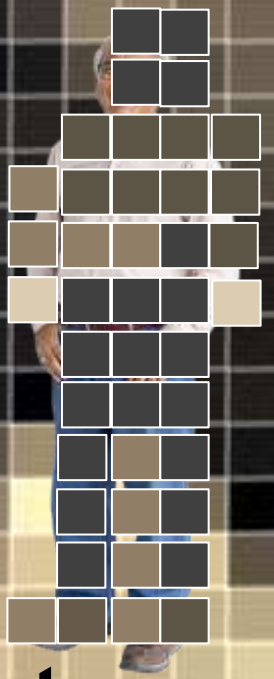
Cruise Speed: Up to **140 knots (259 km/h)** true airspeed at 3,000 metres under power.
Range: Up to **950 nautical miles (1,759 km)**.
Potential: Surveillance of KNP - two 40 km wide transects South to North and return, in 3 hours & four in one full day mission – collecting data of whole park twice a day

Unique Benefits

- **Wide range scanning for landscape coverage in real time**
- **Can be tailored to management needs**
- **Different sensors and scalable**
- **Data preferences or needs of users**
- **Continuity – can remain overhead for long periods**
- **Resolution hugely better than satellites**
- **Actionable real time information**
- **Forensic evidence (real time reaction or prediction – post mission data access)**
- **Night and day through smog, fog, snow**
- **Predictive analytical modelling**
- **Measurement in radians 0,5 micro radians 10-15 – 17 kms**

17 km image

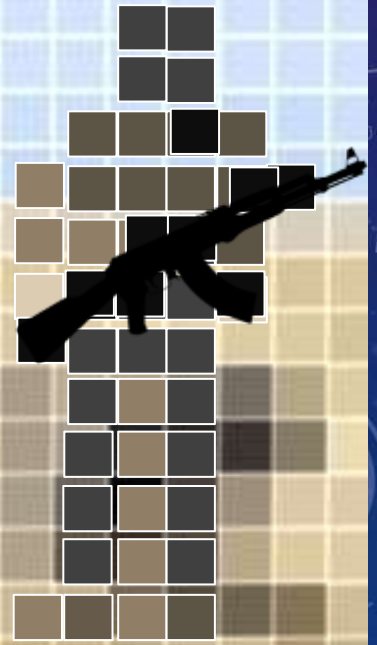
Sensor data programmed to meet specific needs ie. Recognizing shapes ie. Elephant, human – then transmitting analyzed information to ground-based controller for real time response.



Elephant



Person



Poacher?