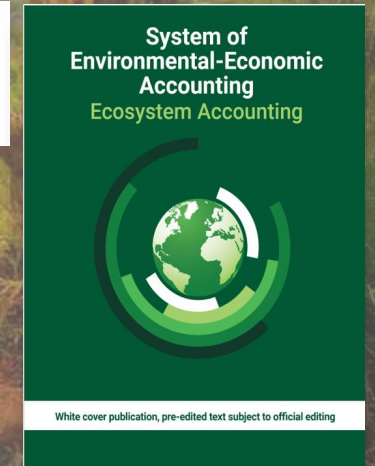


Overview

- What is Natural Capital Accounts
- Ecosystem Accounts in South Africa
- Evolution of Ecosystem Accounts in South Africa
- Towards an expanded range of ecosystem accounts
- Key take aways

Reminder...

Natural Capital Accounting is the systematic measurement of stocks and flows of natural resources

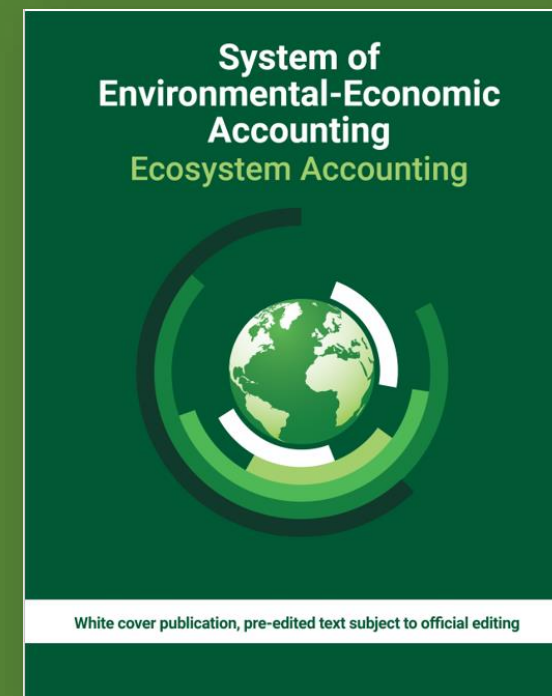


The measurement framework for NCA is the SEEA

Ecosystem Accounting deals with accounts for ecosystem assets and ecosystem services

Ecosystem accounting is one component of NCA

Evolution of Ecosystem accounts in SA, including thematic accounts

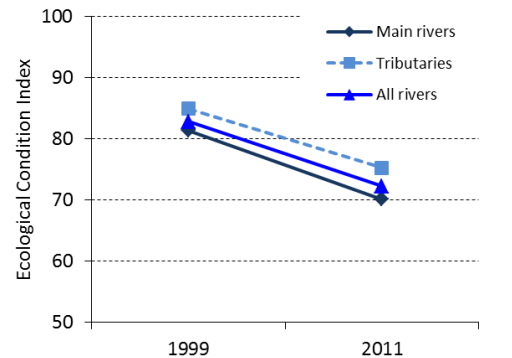
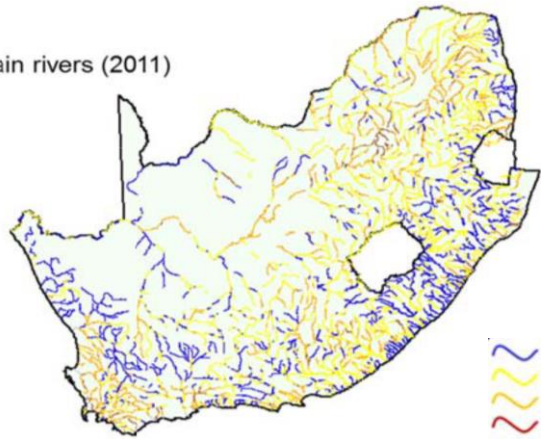


Evolution of Ecosystem accounts in SA, including thematic accounts

National River Ecosystem Accounts

- Developed through the **Advancing Natural Capital Accounting (ANCA) Project, 2014-2015**.
- Highlight key trends in the extent and condition** of the country's river ecosystems.
- Showed a decline** of 10% in ecological condition of rivers between 1999 and 2011. So, we want to update these.

Main rivers (2011)



~ Natural or near-natural
~ Moderately modified
~ Heavily modified
~ Unacceptably modified

SANBI
Biodiversity for Life
South African National Biodiversity Institute

stats sa
Department of Statistics
REPUBLIC OF SOUTH AFRICA

CSIR
our future through science

RENEWABLE WILDLIFE
Department of Environmental Affairs
REPUBLIC OF SOUTH AFRICA

water & sanitation
Department of Water and Sanitation
REPUBLIC OF SOUTH AFRICA

environmental affairs
Department of Environmental Affairs
REPUBLIC OF SOUTH AFRICA

United Nations Statistics Division

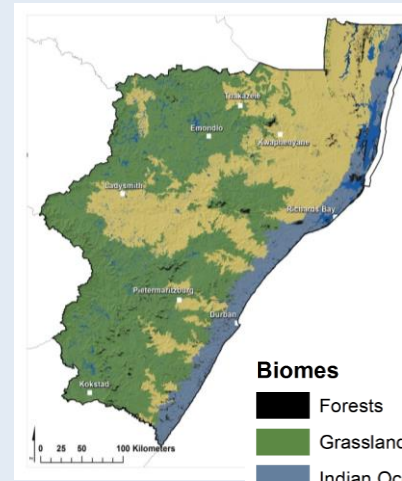
UNEP

Convention on Biological Diversity

NORWEGIAN MINISTRY OF FOREIGN AFFAIRS

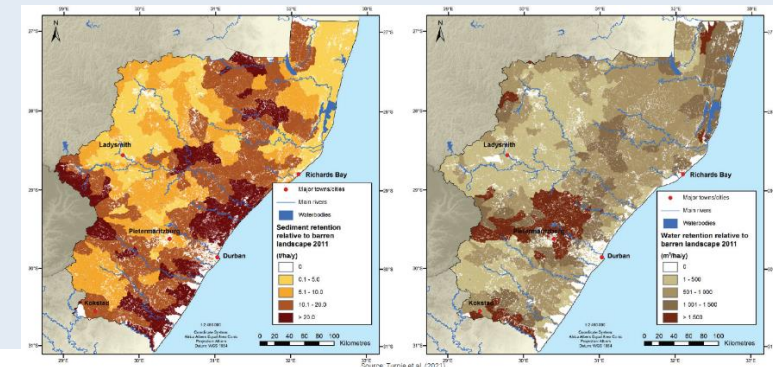
Land and ecosystem accounting in KwaZulu-Natal

- Pilot sub-national accounts were compiled for KwaZulu-Natal and
- Informed the **methodology for the development of national-level accounts**.
- Ecosystem service accounts (2005 and 2011) summarized by biome, in biophysical terms
 - Fuelwood
 - Bushmeat use
 - Cultivated production
 - Commercial Livestock



Biomes

■ Forests
■ Grassland
■ Indian Ocean Coastal Belt
■ Savanna
■ Wetlands



Evolution of Ecosystem accounts in SA, including thematic accounts

Experimental Ecosystem Accounts for SA Estuaries

- Experimental **Ecosystem Accounts for South Africa's Estuaries: Extent, Condition and Ecosystem Services Accounts, October 2020.**
- Developed by **CSIR** in collaboration with SANBI, Stats SA, and other departments.
- These accounts **provide information** on the extent, condition, and ecosystem services of estuaries.



EXPERIMENTAL ECOSYSTEM
ACCOUNTS FOR SOUTH AFRICA'S
ESTUARIES

Extent, Condition and Ecosystem
Services Accounts

October 2020

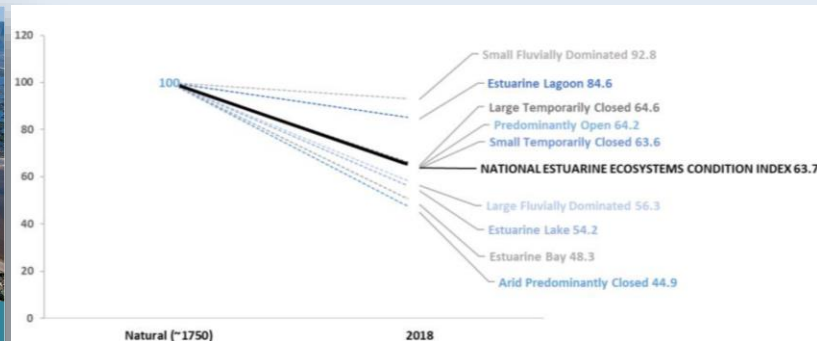
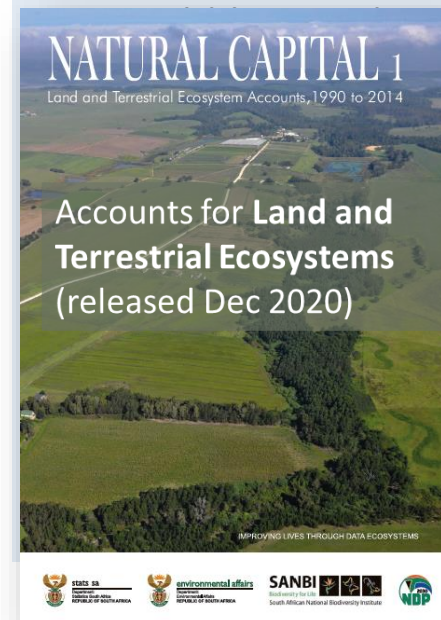


Figure 5.1: National Estuarine Ecosystem Condition Index aggregated from the nine estuary functional types overall condition

Land and Terrestrial Ecosystem Accounts

- **First national** Land and Terrestrial Ecosystem Accounts, **1990 to 2014**, released in **Dec 2020**. **First Stats SA NCA series.**
- Produced as part of the **Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project (2017-2020).**
- Showed **changes in** land cover at national, provincial, and district municipality scales and
- Provided **information about the state** of South Africa's **terrestrial ecosystems** and **how this has changed.**

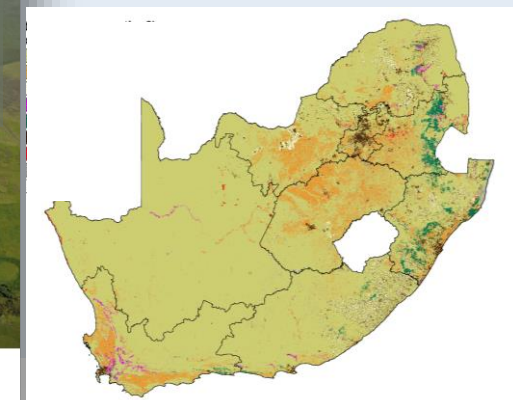


NATURAL CAPITAL 1
Land and Terrestrial Ecosystem Accounts, 1990 to 2014

Accounts for Land and
Terrestrial Ecosystems
(released Dec 2020)

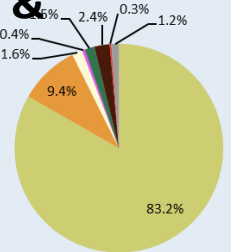


inform the GBE indicator for Goal A.2
Land accounts, by province &
district municipality



National land cover (tier 2)
2014

- Natural or semi-natural
- Commercial crops
- Subsistence crops
- Orchards and vines
- Timber plantations
- Urban
- Mines
- Waterbodies

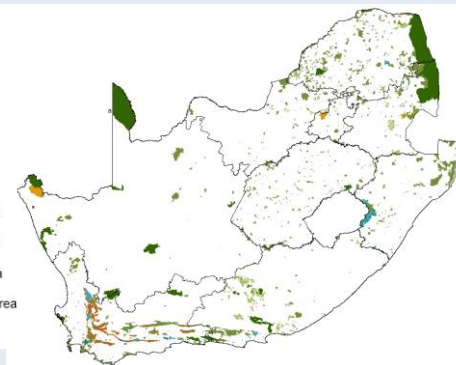


Evolution of Ecosystem accounts in SA, including thematic accounts

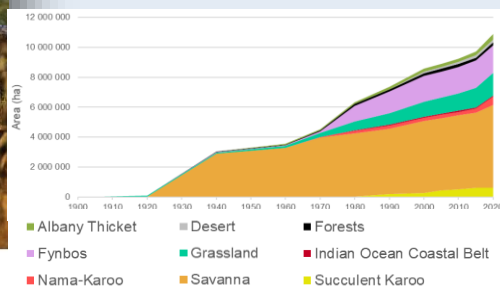
Accounts for Protected Areas

- **First National** Accounts for Protected Areas, **1900 to 2020**, released in **October 2021**. **Second Stats SA NCA series**.
- These accounts **track the size of the PA network from 1900 until 2020**,
- Showing the **size** and **changing composition** in terms of different types of Pas.
- Directly useful for the **GBF headline indicator for Target 3, NPAES**

Types of PA as per Protected Areas Act



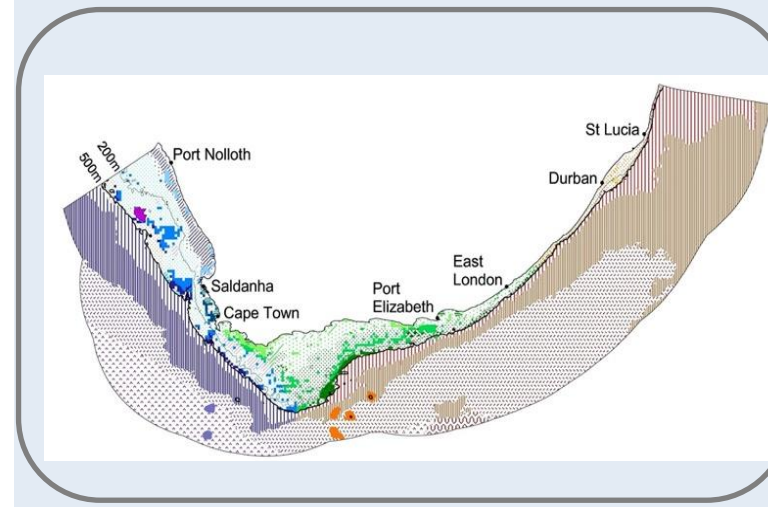
Track the size of PA network, from 1900 to 2020



Initial work done: Marine ecosystem asset accounts

- Initial work was done on these accounts, but **have not been completed**
- These accounts aim to provide information on the **extent** and **condition** of the **country's natural marine assets**.
- Additional capacity is required to further the work.
- Could be used to inform the **GBF indicator for Goal A.2**

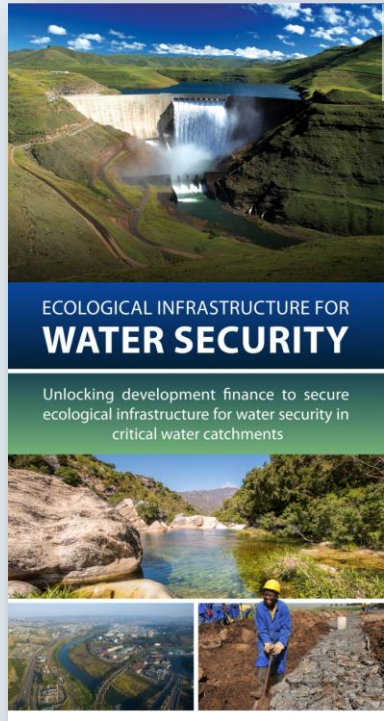
Marine ecosystem asset accounts – extent and condition



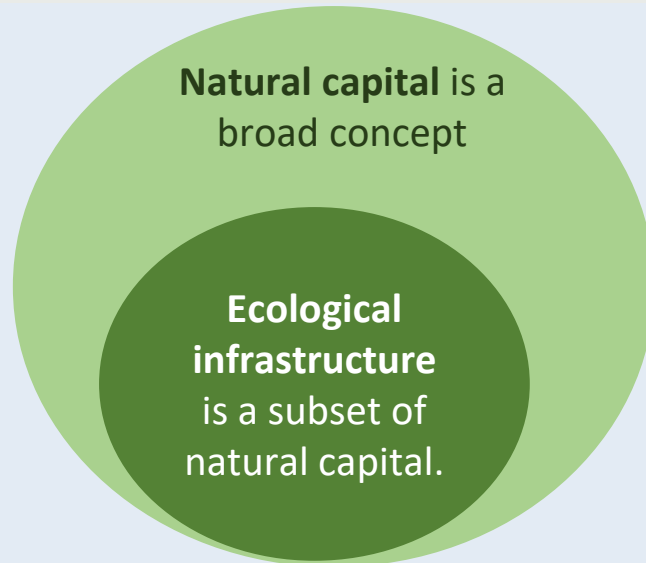
Evolution of Ecosystem accounts in SA, including thematic accounts

Ecological Infrastructure for Water Security Project

- **Ecological Infrastructure** is a subset of natural capital and are **the naturally functioning ecosystems that generate or deliver valuable services and benefits to people.**
- EI4WS started in **2018**,
- Funded through the **GEF**, implemented by **DBSA** in partnership with **DFFE** and **executed by SANBI** in partnership with **Stats SA & DWS**

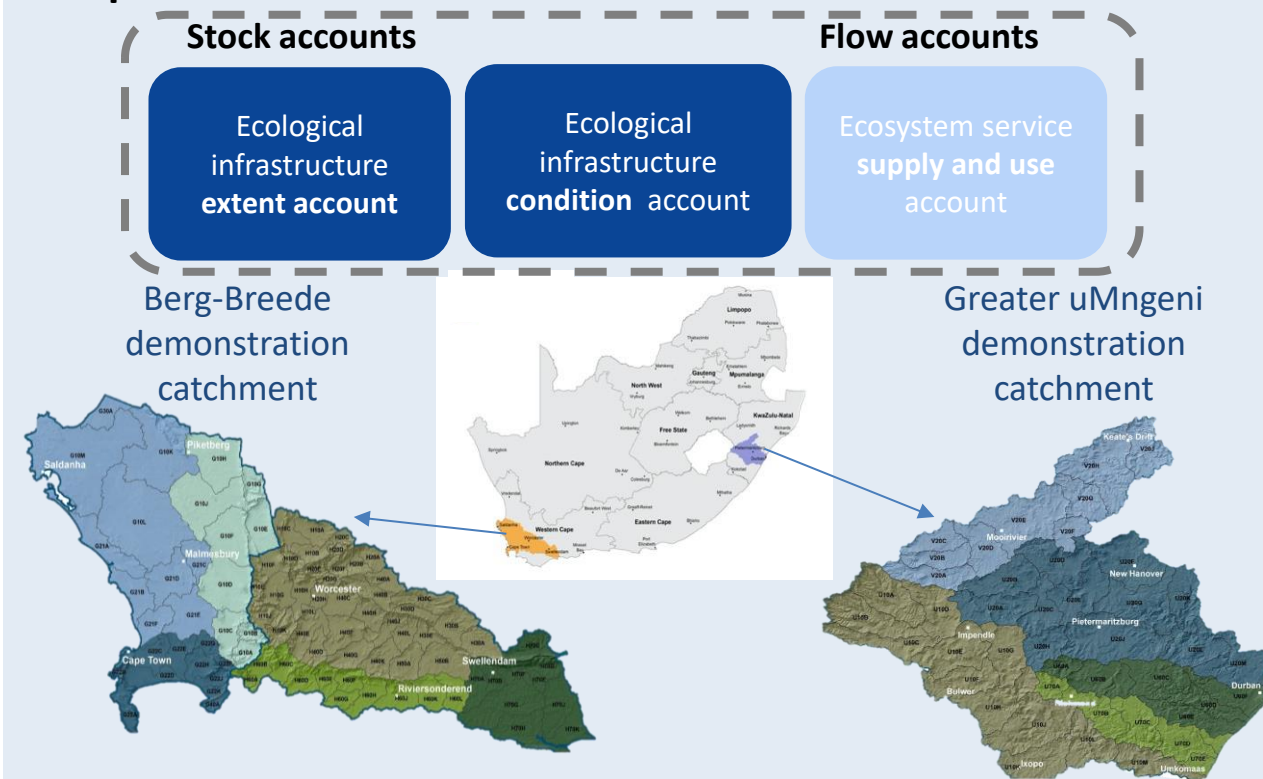


EI is the *stock* of assets that provides a *flow* of ecosystem services.



Experimental Ecological Infrastructure assets accounts

- The project was implemented in two catchments: the Berg-Breede catchment and the Greater uMngeni catchment in KwaZulu-Natal.
- Experimental ecosystem accounts for water-related EI assets; assessing their **extent** and **condition**: **Rivers, wetlands, and riparian areas.**

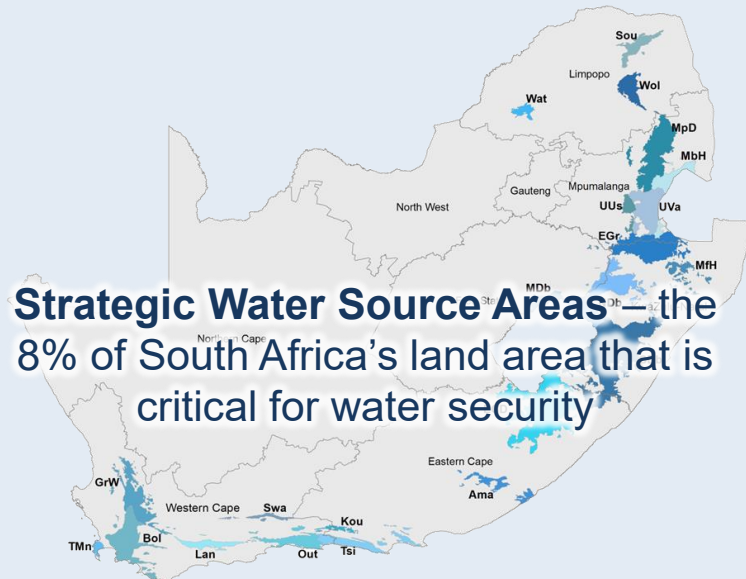
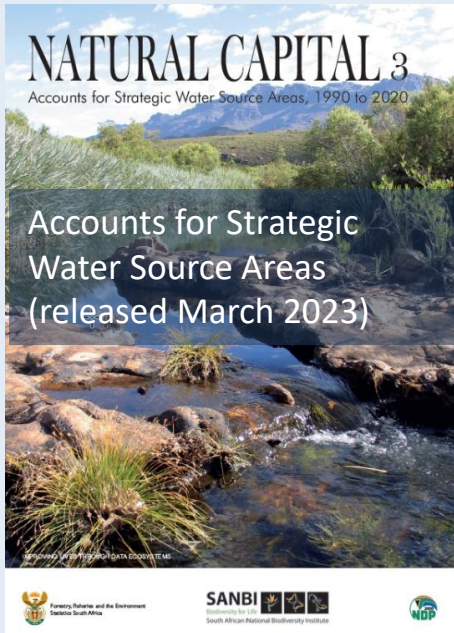


Evolution of Ecosystem accounts in SA, including thematic accounts

Accounts for Strategic Water Source Areas

- **First national** Accounts for Strategic Water Source Areas, **1990 to 2020**, released in **March 2023**. **Third Stats SA NCA series**.
- These accounts track changes in **land cover and protected areas** within **SWSAs over three decades, from 1990 to 2020**, in biophysical terms.
- Directly useful for **global reporting and national policies, e.g. GBF Target 3**, National Water and Sanitation Master Plan.

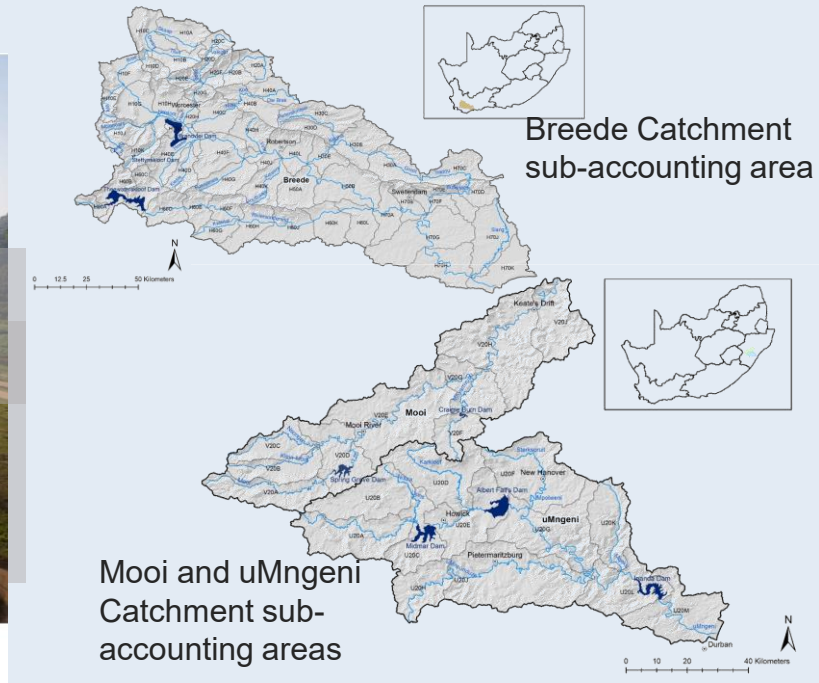
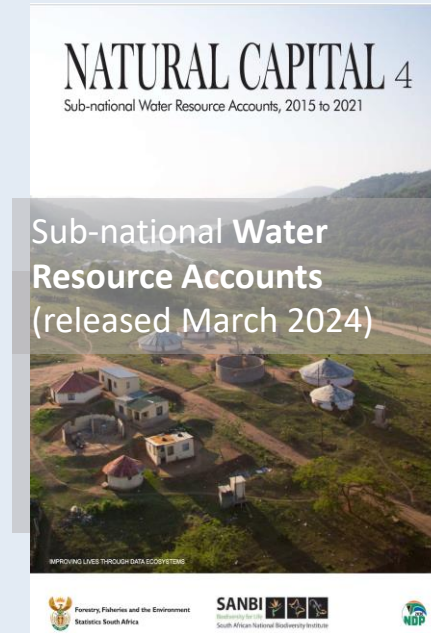
SWSAs are ecological infrastructure assets for water security



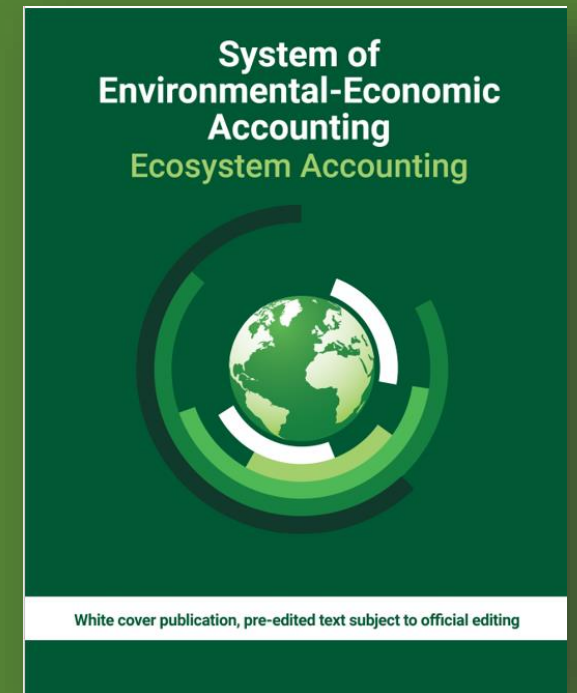
Sub-national Water Resource Accounts

- Sub-national Water Resource Accounts, **2015 to 2021**, released in **March 2024**. **Fourth Stats SA NCA series**.
- Experimental accounts compiled at **catchment levels**.
- Provide us with **annual estimates** of catchment **water balances, water inflows and outflows**.
- **Inclusion of the national land cover** in the hydrological modelling.

Spatially explicit water accounts to support land and water management.



Towards an expanded range of Ecosystem and thematic accounts in South Africa



Towards an expanded range of Ecosystem and thematic accounts in SA

Green Climate Fund (GCF) Projects: Ecosystem-based Disaster Risk Reduction (Eco-DRR)- 2025-2030



Project duration: 8 years

Total GCF Fund **\$40.1 million**



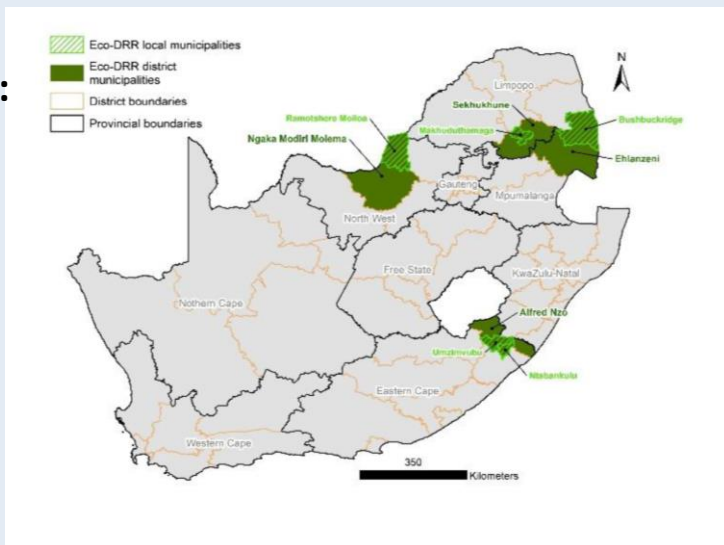
Co-financing: \$ 9.4 million



SANBI –both **executing and accredited entity**
DFFE, SANBI, SALGA, Stats SA

District municipalities:

(A) Sekhukhune, (B) Ehlanzeni, (C) Ngaka Modiri Molema and (D) Alfred Nzo.



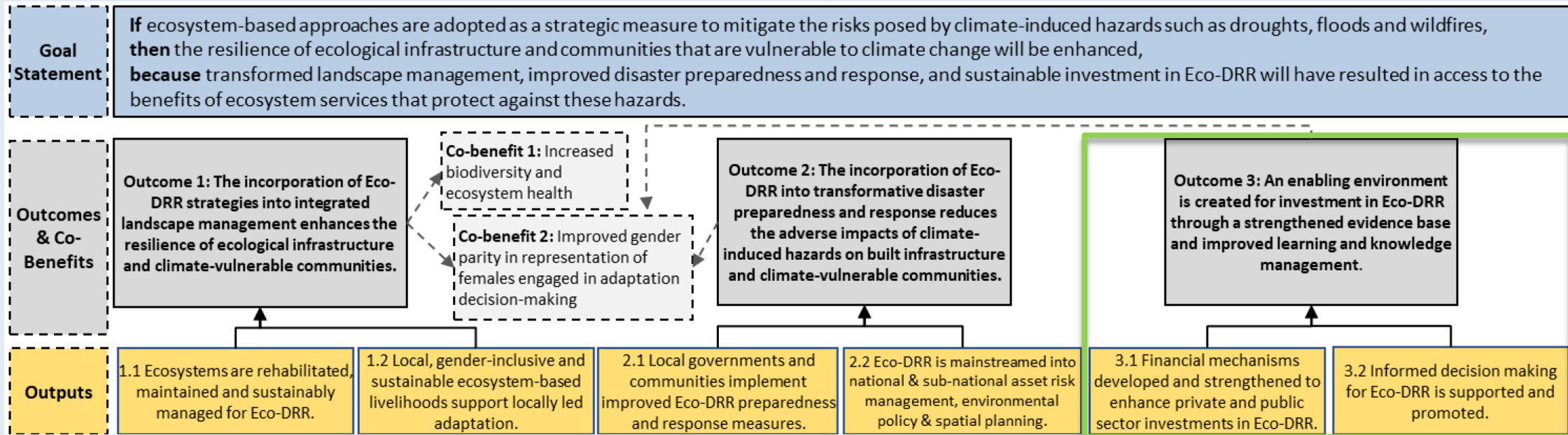
- Scaling up ecosystem-based approaches to managing climate-intensified disaster risks in vulnerable regions of South Africa.



- Builds on the previous NCA foundations, including the EI4WS Project.
- Expands the NCA evidence base from water-focused applications to broader biodiversity and ecosystem investment.

Towards an expanded range of Ecosystem and thematic accounts in SA

Green Climate Fund (GCF) Projects: Ecosystem-based Disaster Risk Reduction (Eco-DRR)- 2025-2030



Outcome 3

An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management, through:

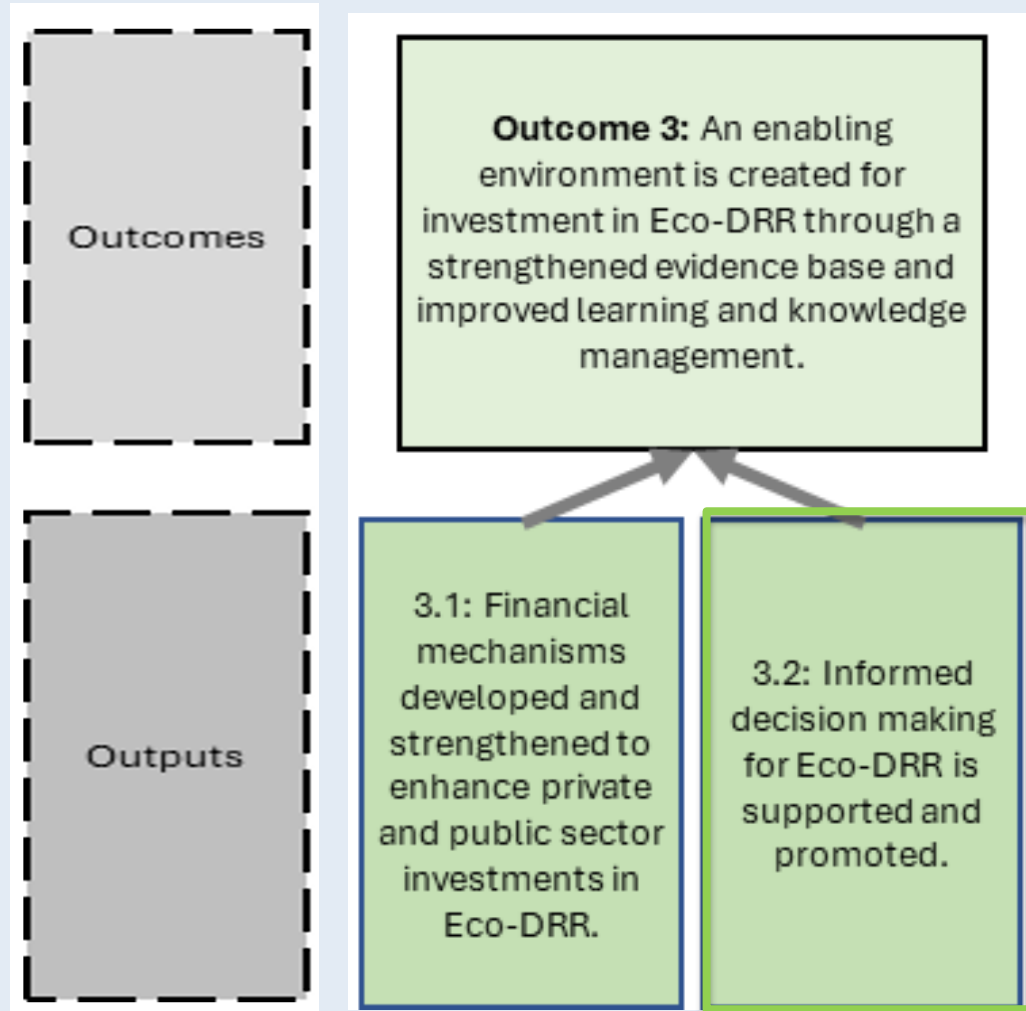
3.1 Financial mechanisms developed and strengthened to enhance private and public sector investments in Eco-DRR

3.2 Informed decision-making for Eco-DRR is supported and promoted

Towards an expanded range of Ecosystem and thematic accounts in SA

Green Climate Fund (GCF) Projects: Ecosystem-based Disaster Risk Reduction (Eco-DRR)- 2025-2030

OUTCOME 3:An enabling environment is created for investment in Eco-DRR through a strengthened evidence base and improved learning and knowledge management



Activity 3.2.2. Compile spatially explicit ecosystem asset and biocarbon accounts.



Towards an expanded range of Ecosystem and thematic accounts in SA

Global Environment Facility (GEF-8): Conservation, development and livelihoods for thriving people and nature-2025-2030



Project duration: 60 months

Total GEF Fund \$4,999,998



Total Co-financing: \$35,265,699



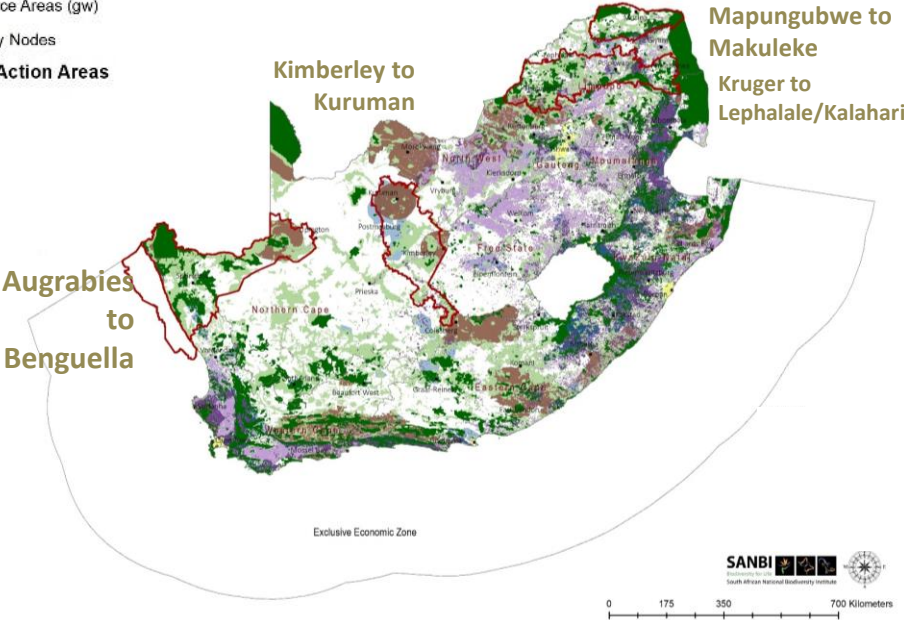
DFFE, SANBI, UNDP, LEDET, DAERL, SANParks, NGO Partners at each landscape

- GOAL:** Conservation and sustainable use of biodiversity strengthen local economies and contribute to thriving and resilient people and nature in landscapes and seascapes.

Legend

- Strategic Water Source Areas (sw)
- Strategic Water Source Areas (gw)
- Biodiversity Economy Nodes
- Essential Life Support Action Areas
 - Protect
 - Avoid Loss
 - Reduce Pressures
 - Restore
 - Urban Adapt

Indicative areas of implementation



Provinces and indicative areas of implementation	Newly protected areas (indicative at PIF) (GEF Core Indicator 1.1)	Newly established conservation areas with improved practices (indicative at PIF) (GEF Core Indicator 4.1 and 5.4)
Northern Cape		
Augrabies to Namaqua: Landscape (1)	15,000 ha	85,000 ha
Augrabies to Namaqua: Seascape	NA	10,000 ha
Kimberley to Kuruman: Landscape (2)	5,000 ha	85,000 ha
Limpopo		
Mapungubwe to Makuleke: Landscape (3)	3,000 ha	50,000 ha
Kruger to Lephalale-Kalahari: Landscape (4)	17,000 ha	90,000 ha
TOTAL	40,000 ha	320,000 ha

Towards an expanded range of Ecosystem and thematic accounts in SA

Global Environment Fund (GEF-8): Conservation, development and livelihoods for thriving people and nature- 2025-2030

KEY MILESTONES AND TIMELINE



Towards an expanded range of Ecosystem and thematic accounts in SA

Global Environment Fund (GEF-8): Conservation, development and livelihoods for thriving people and nature-2025-2030

Components of the Thriving People and Nature Project

Component 1.

Enabling environment strengthened to conserve landscapes and seascapes with benefits to biodiversity, development and rural livelihoods

Component 2.

Biodiversity conserved in a manner that benefits communities and local economies for transformative outcomes in two provinces

Component 3.

Knowledge management enables biodiversity benefits, dependencies, risks and opportunities to be better known and communicated to support making the case for biodiversity conservation.

Component 4.

Effective project monitoring and evaluation, reporting and learning (MERL) ensured and supports adaptive management



Towards an expanded range of Ecosystem and thematic accounts in SA

Ecosystem-Based Adaptation for Water Security in South Africa (EbA-Water) –under development



Project duration: 8 years



GCF Fund **25 million grant**



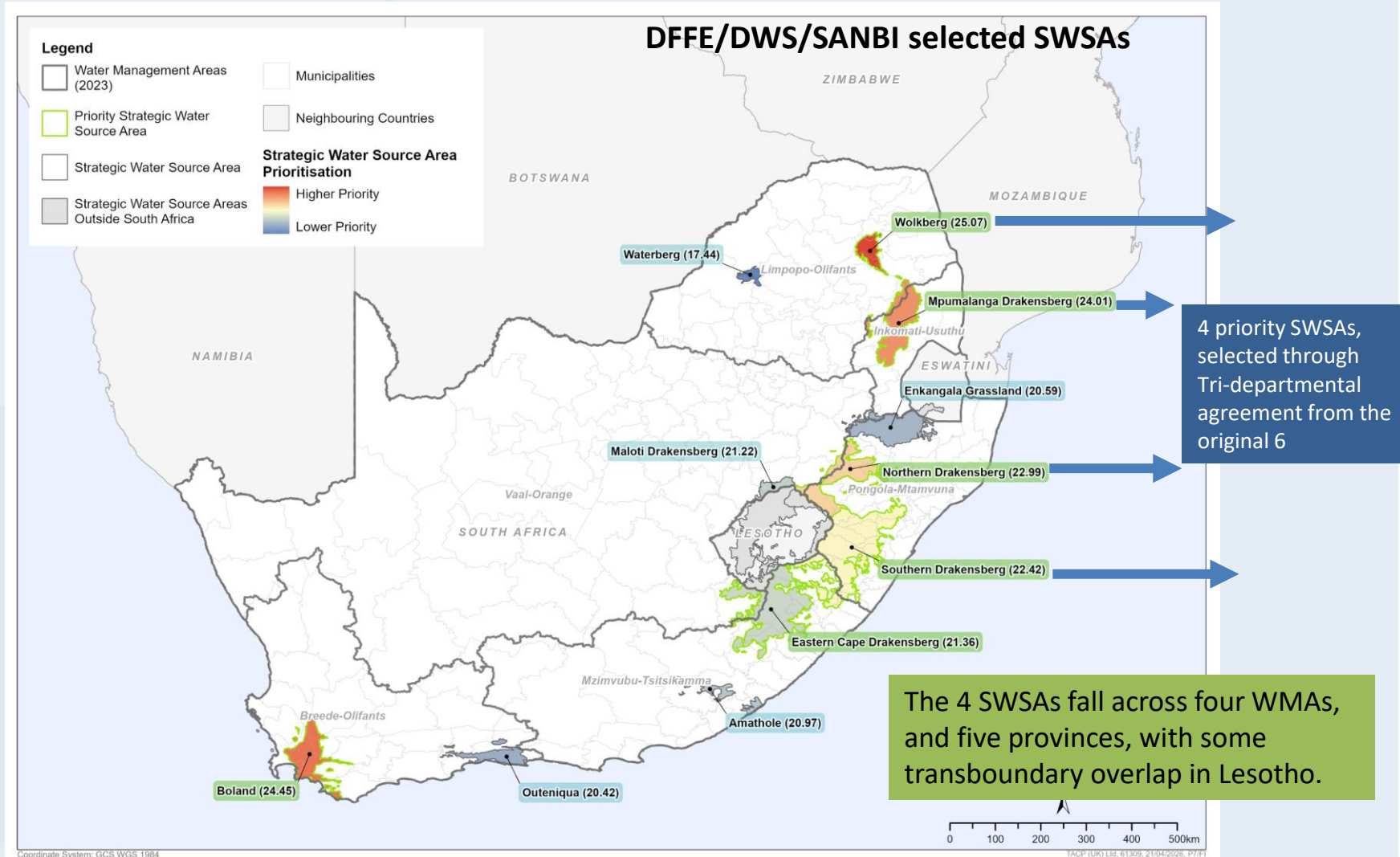
Co-financing: \$ 10 million (TBC)



DFFE, DWS, SANBI, Stats SA

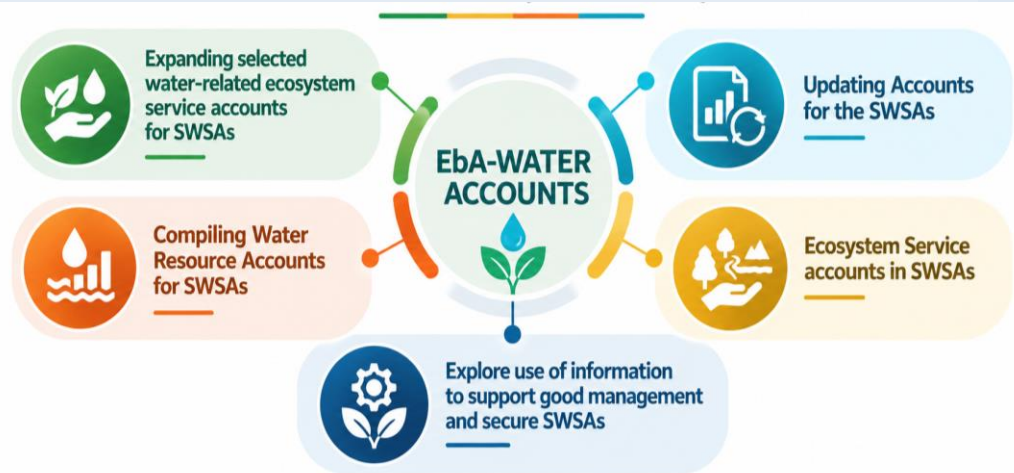
Aim: To secure strategic water source areas towards safeguarding the resource base and strengthening water security in South Africa

Target Strategic Water Source Areas: Wolkberg, Mpumalanga Drakensberg, Northern Drakensberg & Southern Drakensberg



Towards an expanded range of Ecosystem and thematic accounts in SA

Ecosystem-Based Adaptation for Water Security in South Africa (EbA-Water)



Accounts to be compiled, building on the EI4WS:

- Update Accounts for SWSAs:
 - **Land cover and protected areas** within the SWSAs, in biophysical terms.
- Expanded range of accounts for SWSAs:
- Possibly expand selected water-related ecosystem services for SWSAs
- Water Resource Accounts for SWSAs

KEY MILESTONES



Institutionalise NCA to secure South Africa's global leadership

01 Ecosystem compilation: proven capability

South Africa has built a broad portfolio across land and ecological infrastructure, such as rivers and strategic water sources.

02 Institutionalize the capability

Embed SANBI's ecosystem-accounting role in its mandate and resource permanent capacity, aligned with Stats SA and partner departments.

03 Shift from pilots to repeatable national series

Update accounts regularly to reveal change over time, while expanding marine, biocarbon and ecosystem-service accounts.

04 Fund the full operating model

Ongoing investment in technical and policy skills, sustained data pipelines, advanced processing tools and accessible information services.

05 Put accounts at the centre of decisions

Use reliable evidence in critical areas such as water management, land and sea use, biodiversity conservation and integrated development planning.

06 Scale a Global South-led model through partnerships

Combine donor finance, domestic commitment and innovative partnerships to accelerate country-led evolution.

Thank you

