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Towards an expanded range of ecosystem accounts

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National NCA Forum

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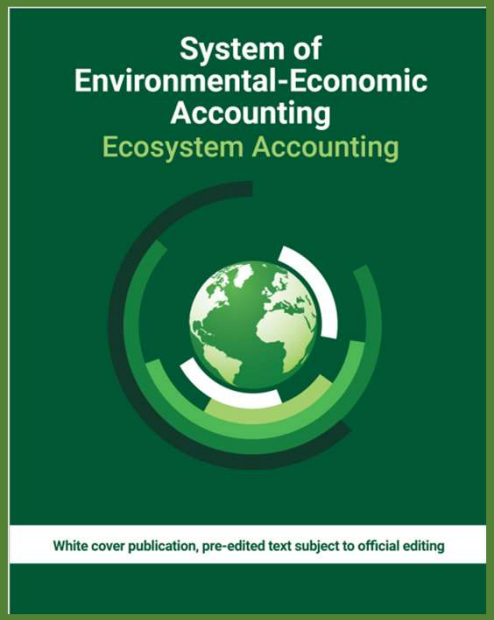
2030 NDP

Overview of slides

- Ecosystem accounts in South Africa to date
- Thematic accounts to date
- Funding proposals towards an expanded range of ecosystem accounts
- Key take aways

Ecosystem accounts in SA including thematic accounts

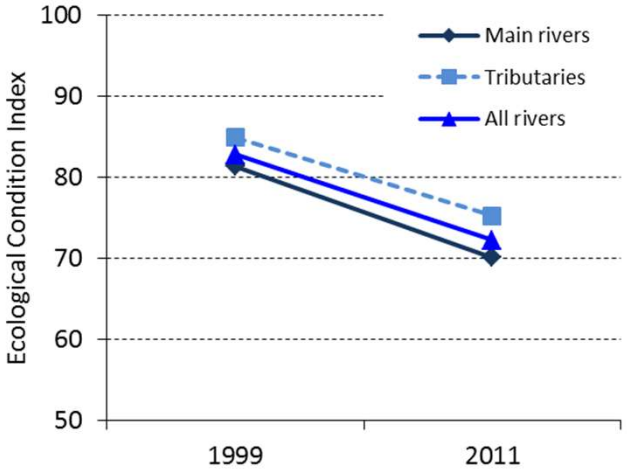
System of Environmental Economic Accounting



National River Ecosystem Accounts – extent and condition

2015

Tested an
Ecosystem Condition Index



Overall
10% decline in
ecological condition
of rivers
1999 - 2011

Advancing Natural Capital Accounting, 2014-2015

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United Nations Statistics Division

UNEP

Convention on Biological Diversity

NORWEGIAN MINISTRY OF FOREIGN AFFAIRS

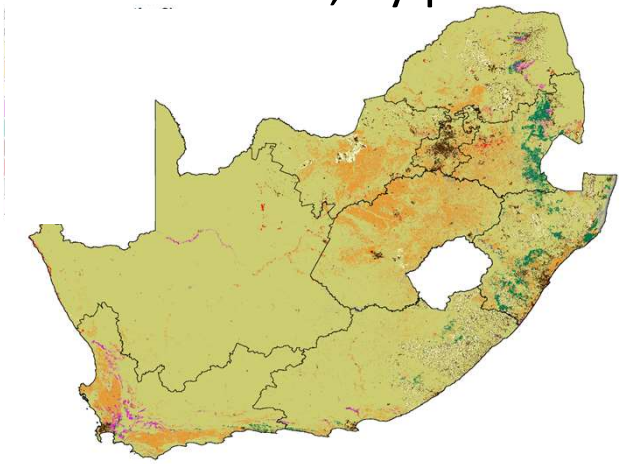
Land and terrestrial ecosystem accounts, 1990 to 2014

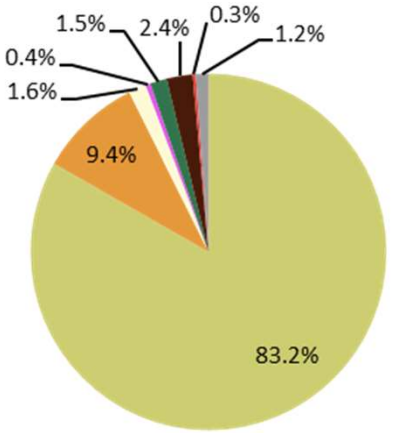
Which ecosystems are under pressure from which land uses?

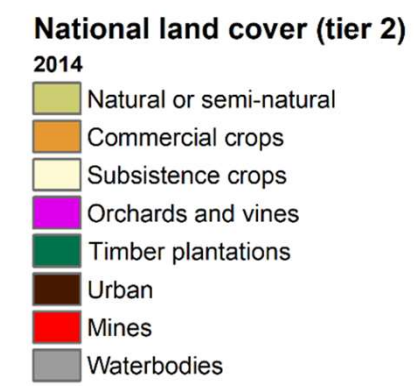
stats sa · environmental affairs · SANBI South African National Biodiversity Institute · NDP

Informs **GBF indicator for Goal A** on extent of natural ecosystem types

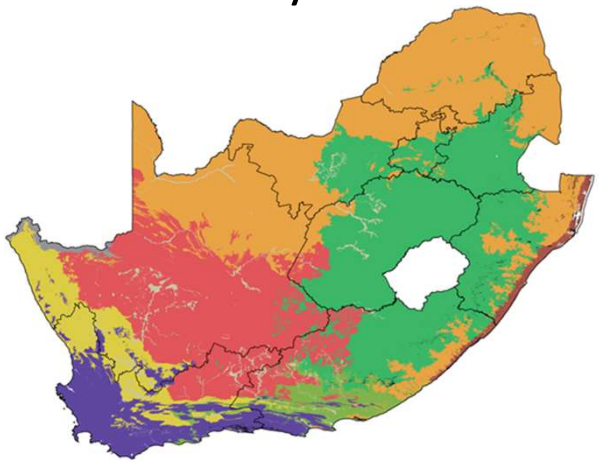
Land accounts, by province & district municipality

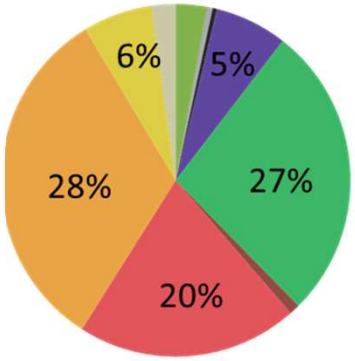




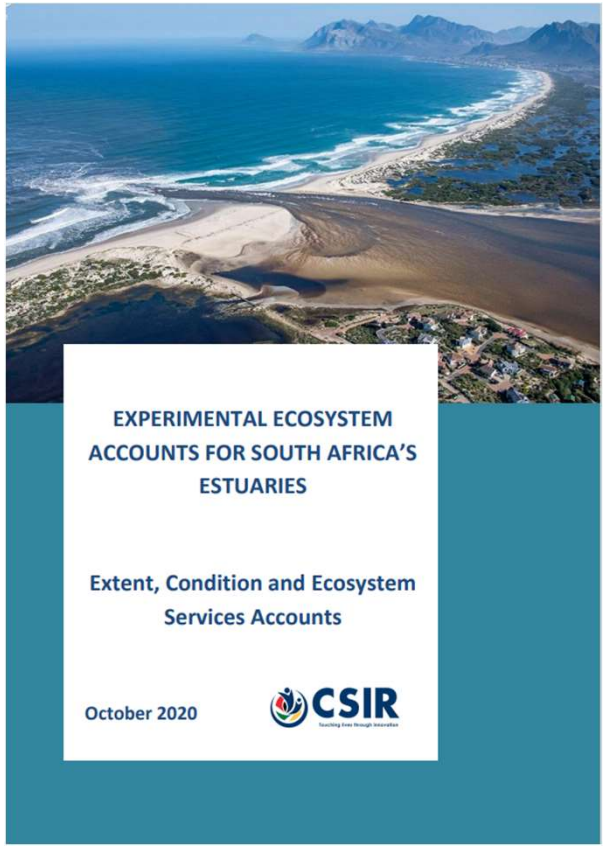


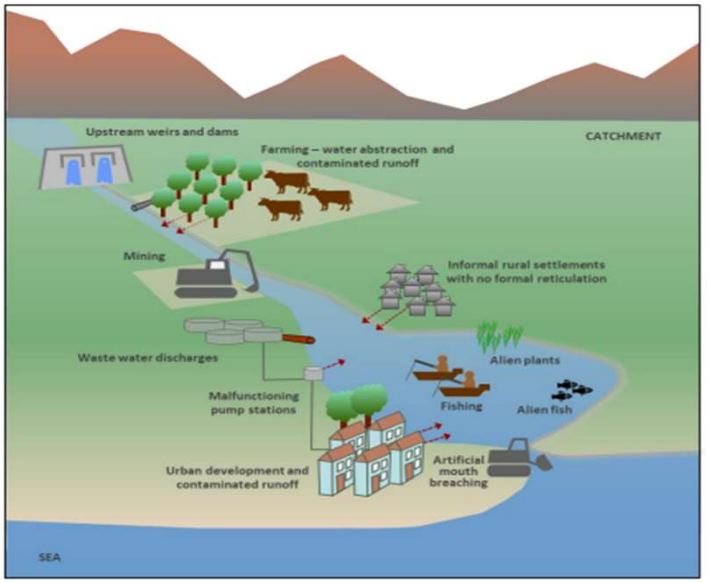
Terrestrial ecosystem accounts, by biome

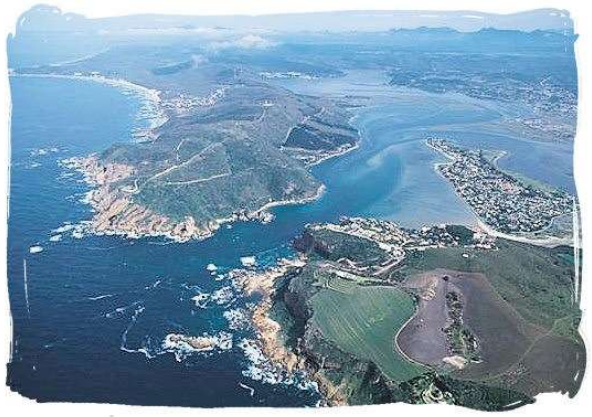




Experimental ecosystem accounts for SA's estuaries – extent, condition, ecosystem services 2020







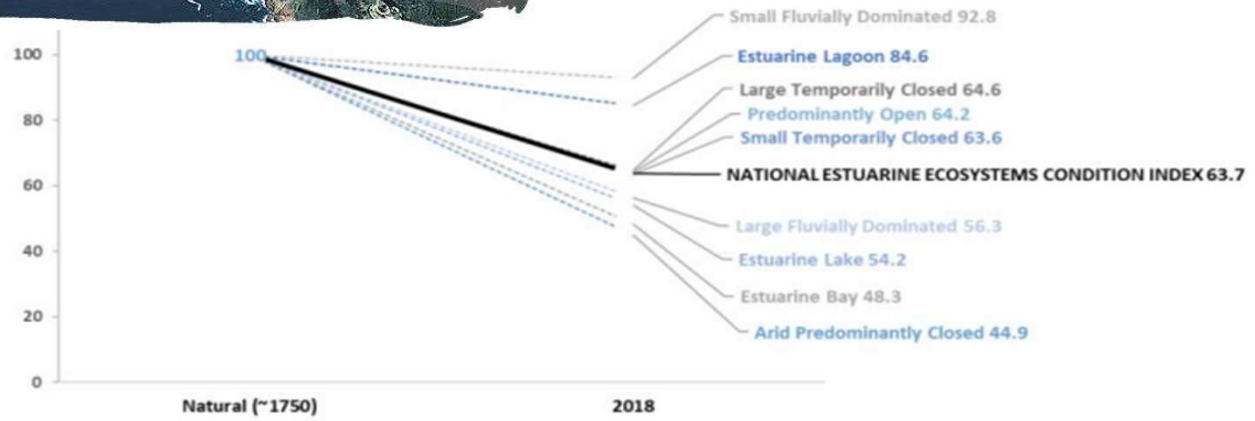
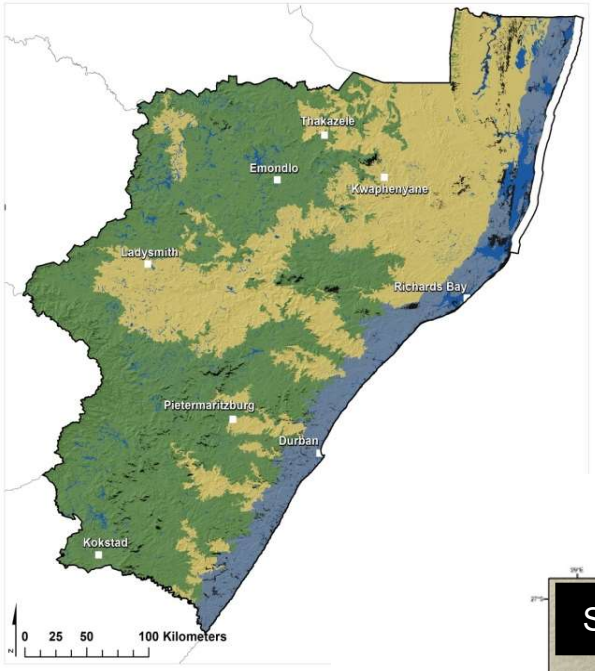


Figure 5.1: National Estuarine Ecosystem Condition Index aggregated from the nine estuary functional types overall condition

Ecosystem services accounts for KwaZulu-Natal

What benefits do nature and ecosystems provide to people in KZN?

United Nations

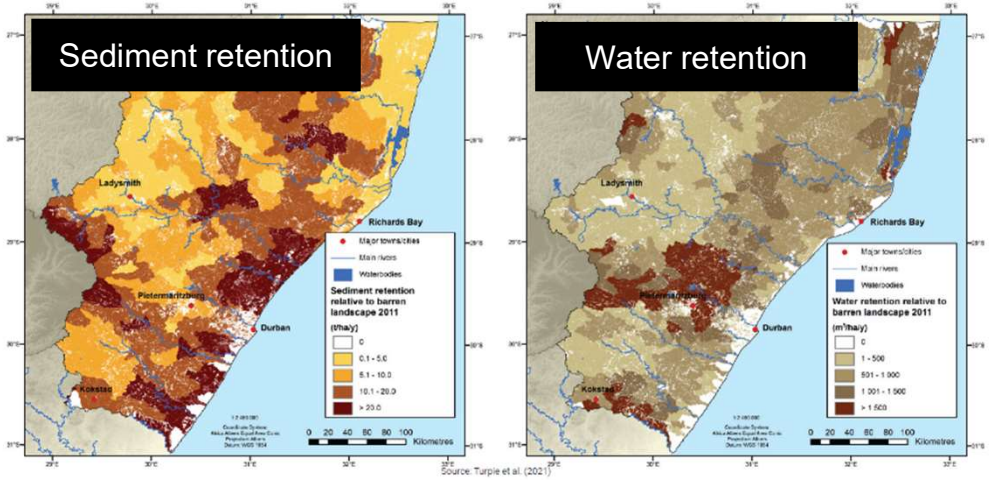


Biomes

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

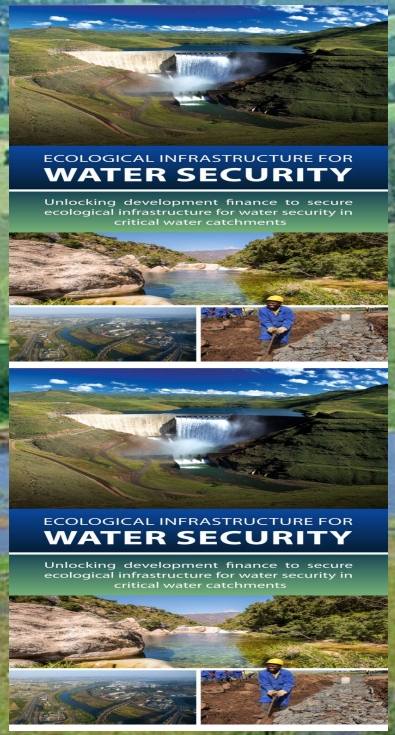
Ecosystem service accounts (2005 and 2011) summarized by biome: in biophysical terms

- Fuelwood
- Bushmeat use
- Cultivated production
- Commercial Livestock



Ecosystem accounts for water-related ecological infrastructure assets in two demo catchments – extent and condition

Photo from Greater uMngeni catchment, which feeds the city of Durban



Accounts include

Stock accounts

- Ecological infrastructure **extent** account
- Ecological infrastructure **condition** account

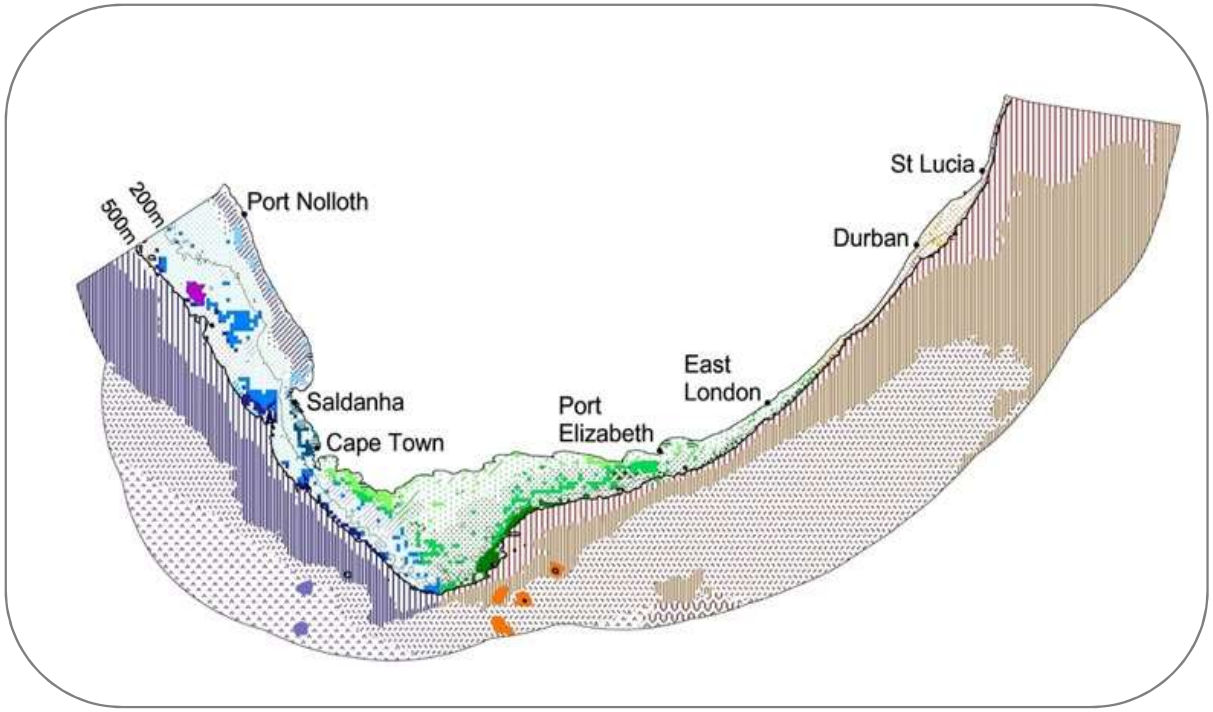
Flow accounts

- Ecosystem service **supply and use** account

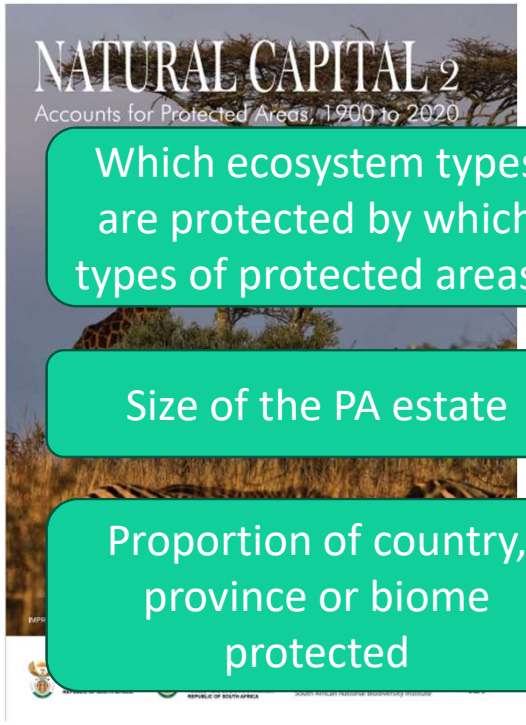
- Wetland ecosystem extent and condition accounts
- River ecosystem extent and condition accounts
- Riparian area extent accounts

(Patrick O'Farrell, Amanda Driver, Nancy Job, Adwoa Awuah, Nokuthula Mahlangu, Aimee Ginsburg)

Initial work done: Marine ecosystem asset accounts – extent and condition



Accounts for protected areas, 1900 to 2020



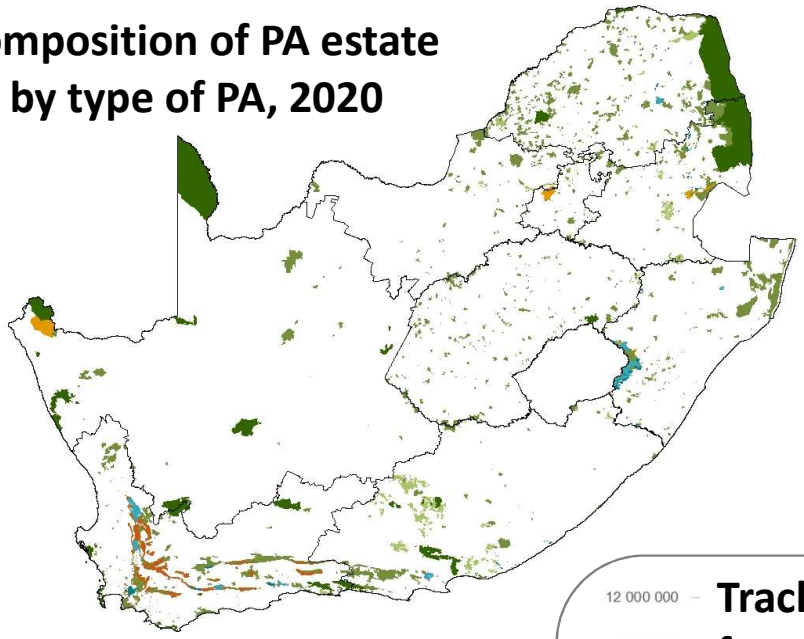
Which ecosystem types are protected by which types of protected areas?

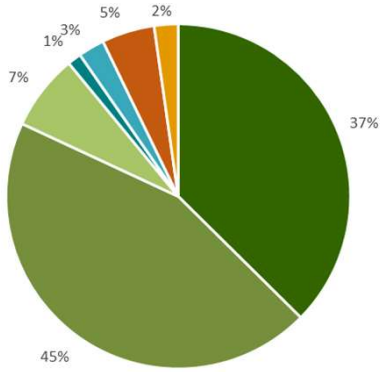
Size of the PA estate

Proportion of country, province or biome protected

→ Directly useful for **GBF headline indicator for Target 3, NPAES**

Composition of PA estate by type of PA, 2020

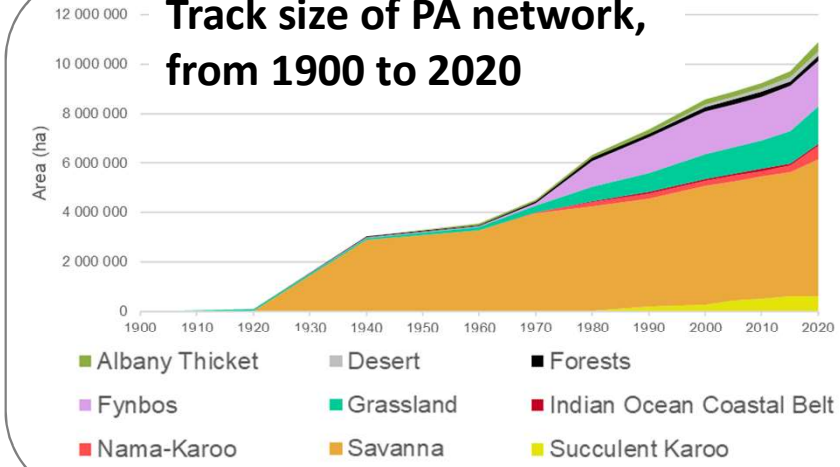




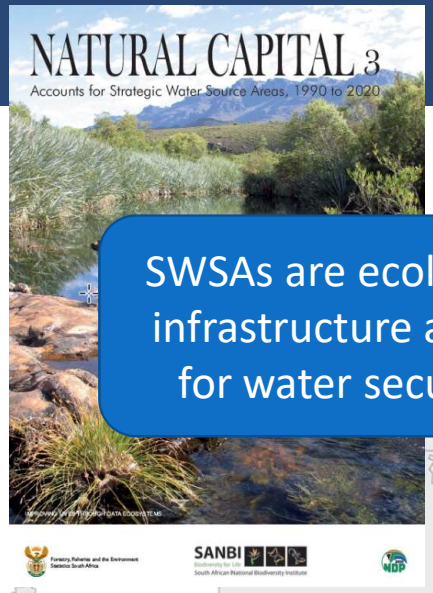
Types of PA as per Protected Areas Act

- National Park
- Nature Reserve
- Protected Environment
- Forest Nature Reserve
- Forest Wilderness Area
- Mountain Catchment Area
- World Heritage Site

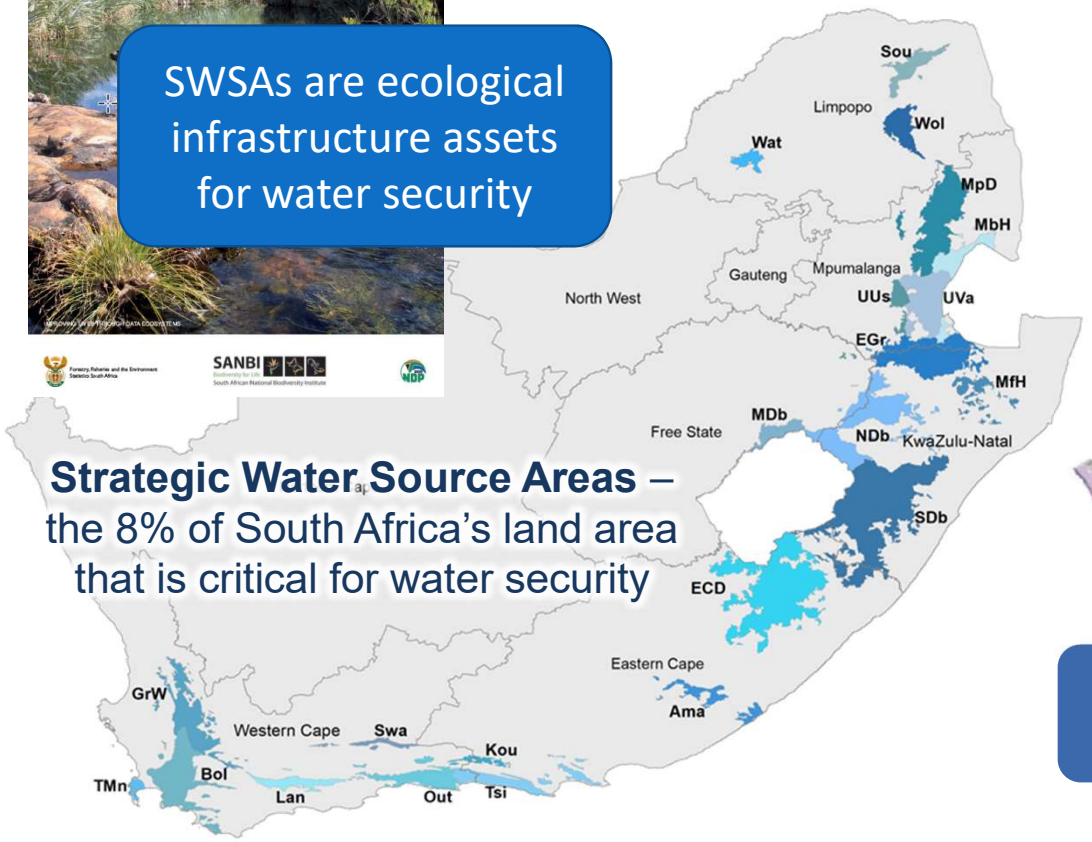
Track size of PA network, from 1900 to 2020



Accounts for SWSAs, 1990 to 2020

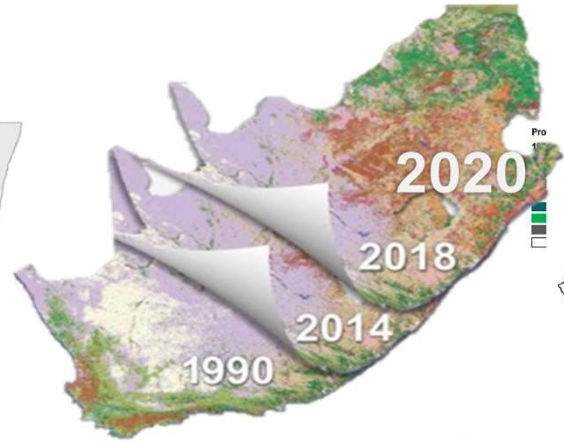


SWSAs are ecological infrastructure assets for water security

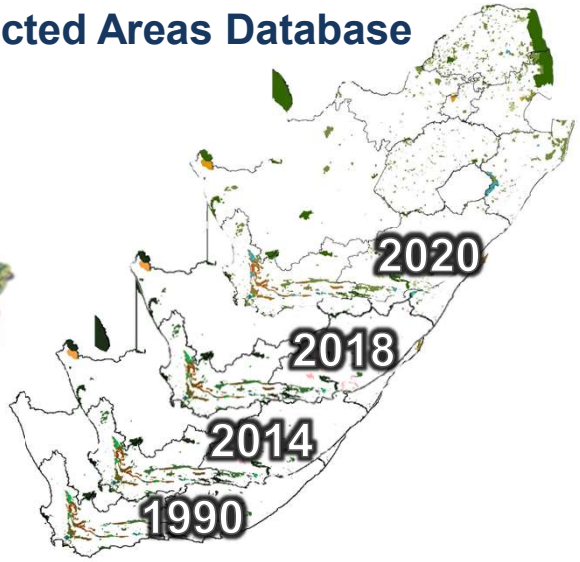


Strategic Water Source Areas – the 8% of South Africa's land area that is critical for water security

Essential data foundations include the **National Land Cover** and the **South African Protected Areas Database**



Land accounts for SWSAs, 1990 to 2020

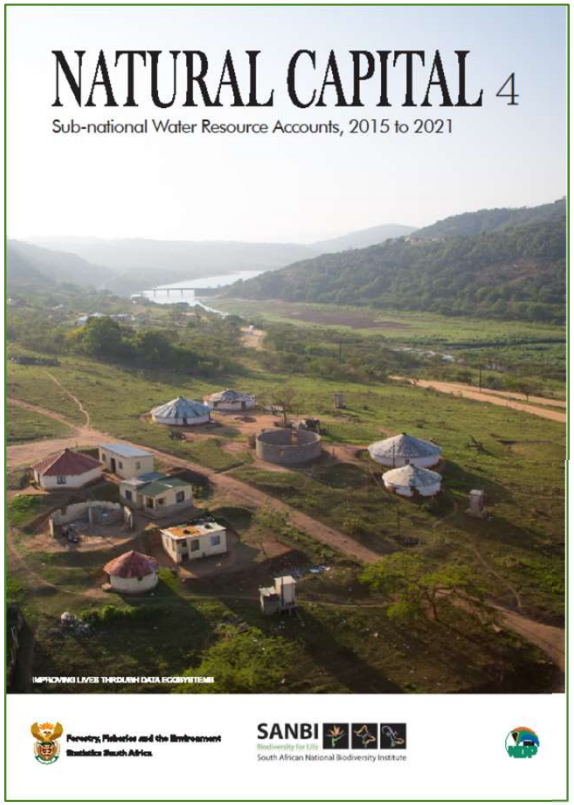


Accounts for PA's in SWSAs, 1990 to 2020

→ Directly useful for **GBF Target 3, NWSMP, DFFE MTDF**

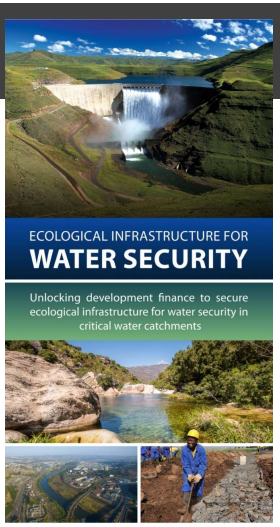
The accounts track changes in land cover and protected areas within SWSAs over three decades from 1990 to 2020, in biophysical terms.

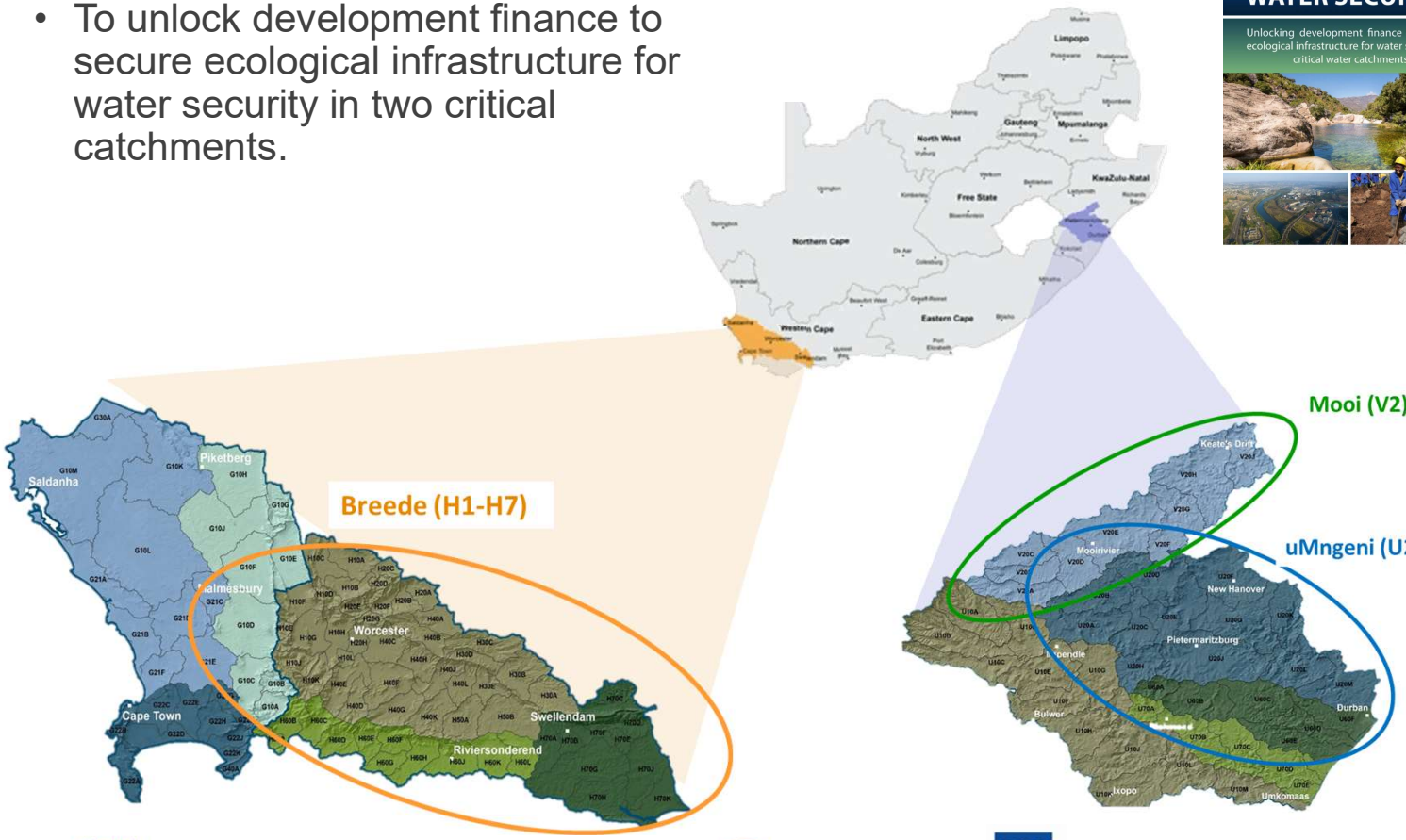
Sub-national Water Resource Accounts, 2015 to 2021



Released in March 2024

- A five-year, multi-stakeholder project
- To unlock development finance to secure ecological infrastructure for water security in two critical catchments.





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Towards an expanded range of ecosystem accounts

- Accounts thus far:
  - Donor funded
  - Very limited internal capacity (technical expertise is there, but fully subscribed)
- To expand the range of ecosystem accounts and replicate accounts to see change of time:
  - Ongoing investment in data and capacity
  - Need funding
- A plan to see expanded range of ecosystem accounts and ensure their wide use to provide credible evidence for integrated planning and decision-making in support of the development needs of the country

GEF 8: Conservation, development and livelihoods for thriving people and nature

2025-2030

Expanded suite of ecosystem accounts across more realms: land and terrestrial, river ecosystem and wetland ecosystem accounts

Expanded accounts for protected areas and conservation areas to also include marine PA and CA

Environmental protection expenditure accounts: telling us about government expenditure and the finance gap.

Biodiversity economy accounts: regular production of biodiversity-based tourism estimates and biodiversity economy satellite accounts

GCF: Ecosystem-based Adaptation in Strategic Water Source Areas (SWSAs)

2026-2033

Expanded range of accounts for SWSAs:

- Update Accounts for SWSAs
- Expand selected water-related ecosystem services from SWSAs
- Water Resource Accounts for SWSAs

GCF: Ecosystem-based Disaster Risk Reduction (Eco-DRR)

2025-2032

Ecosystem-based Disaster Risk Reduction

- Accounts for ecological infrastructure in primary catchments
- Carbon accounting (well managed ecosystems contribute to biocarbon)

Multi-stakeholder coordination, learning and sharing to maximise knowledge impact from NCA work in South Africa.
Involvement of youth from previously disadvantaged groups.
Contributing to and benefitting from regional and global NCA platforms.

Key take aways

- SA is a global leader in ecosystem accounting and has done a lot of different types of accounts
- Institutionalisation of permanent capacity needed to sustain this.
- Building capacity is part of the longer-term solution.
- Investments in more advanced approaches and tools for processing data, compiling accounts and serving information also part of the longer-term solution.
- This needs catalytic funding from donor projects and innovative partnerships to take that further and see this evolution.
- Important that this sort of evolution is driven by countries in the global south.

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Thank you

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