South African
NATIONAL PARKS

Biodiversity Offsets in Mining

Reducing delays, contingent liabilities and compliance costs

SAIMM ESG Conference, October 2024

jeffrey.manuel@sanparks.org

KUNMING MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

2020 UN BIODIVERSITY CONFERENCE
COP 15 · CP/MOP10 · NP/MOP4
KUNMING – MONTREAL

CONSERVE

1. Biodiversity-inclusive **spatial** planning, «**near-0 loss**»
2. Effectively **restore 30%** of degraded nature
3. Effectively **conserve 30%** of lands and seas
4. Halt human-induced **extinctions**

AVOID

5. Stop unsustainable **use, harvest, trade** of species
6. Reduce **alien species** spread by at least 50%
7. Reduce **pollution** risks, impacts by at least 50%
8. Reduce **climate change** impacts

SAFE-GUARD

9. Sustainably **manage and use** wild species
10. Sustainable **agri/aquaculture, fisheries, forestry**

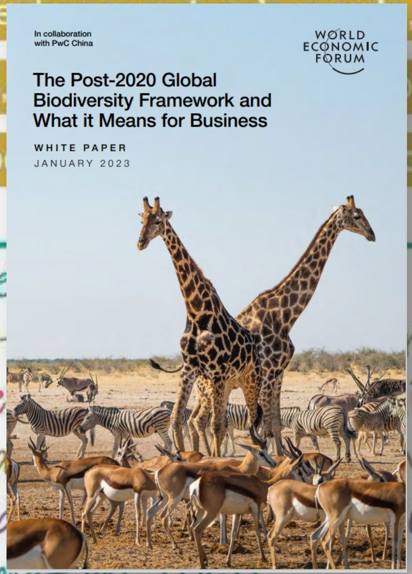
nd e… , services

area, … lue spaces

of b… ources

ACT

14. **Mainstream** biodiversity into all policy, practice
15. **Businesses** to monitor, disclose nature impacts
16. Sustainable **consumption**, half food waste
18. Phase out 'perverse' **subsidies**, increase **finance**
17. 23. Strengthen **capacity, participation, IPLC, women**
19. **Mobilise public and private funding for implementation**

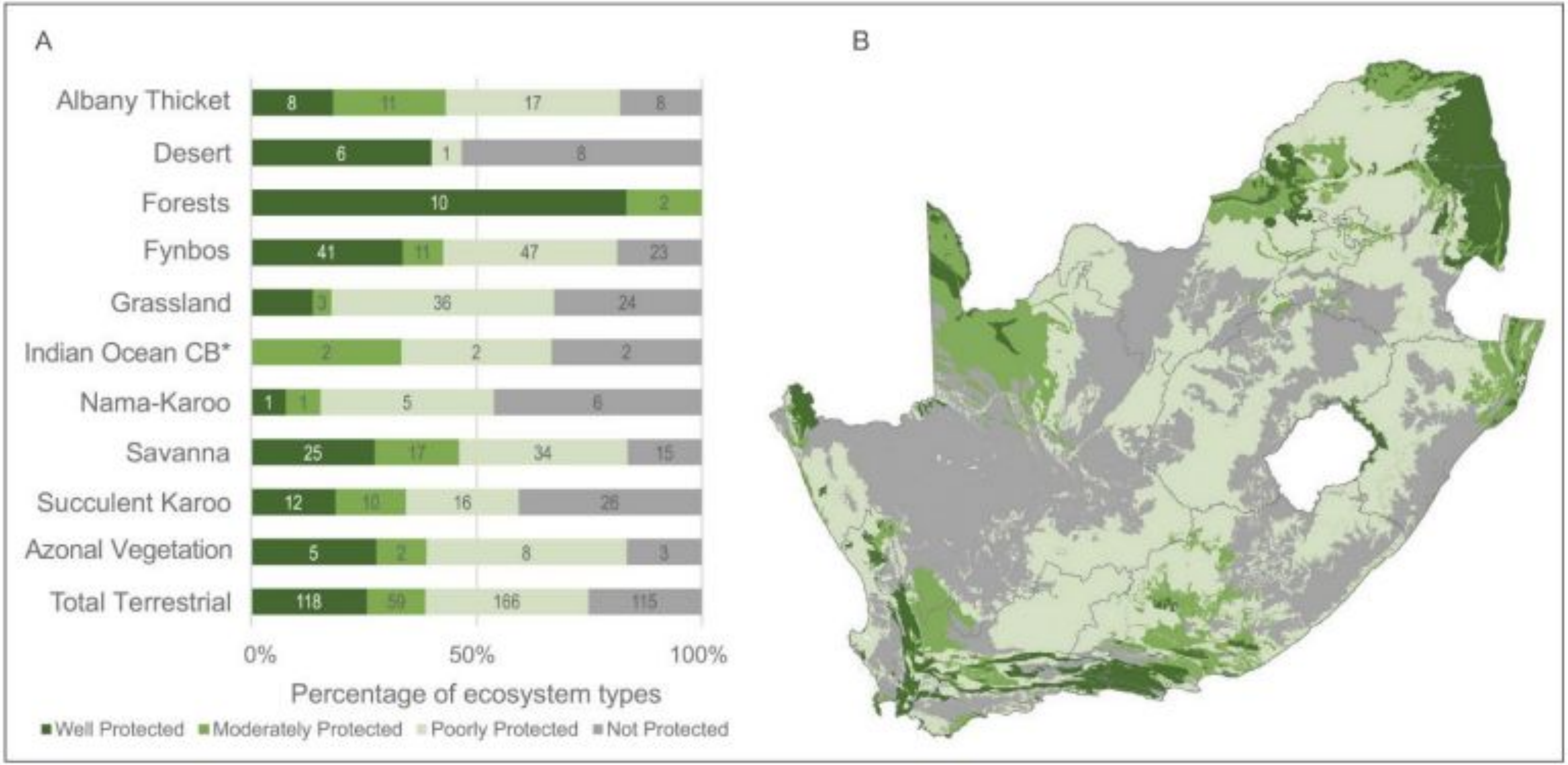


ove… re
Hal…
Use… inably
Sha… vices
Mob… urces
…e met by 2050

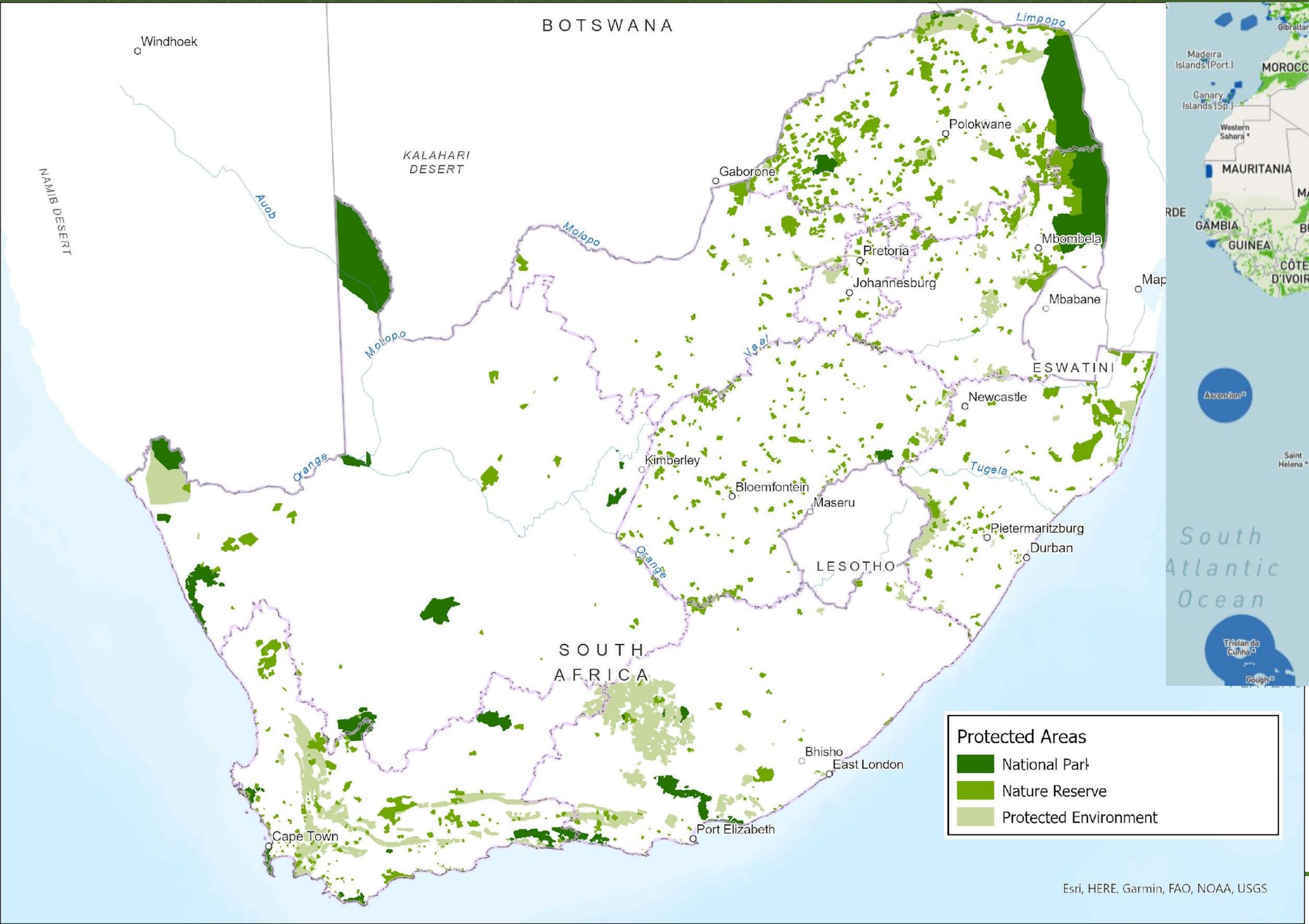
https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf

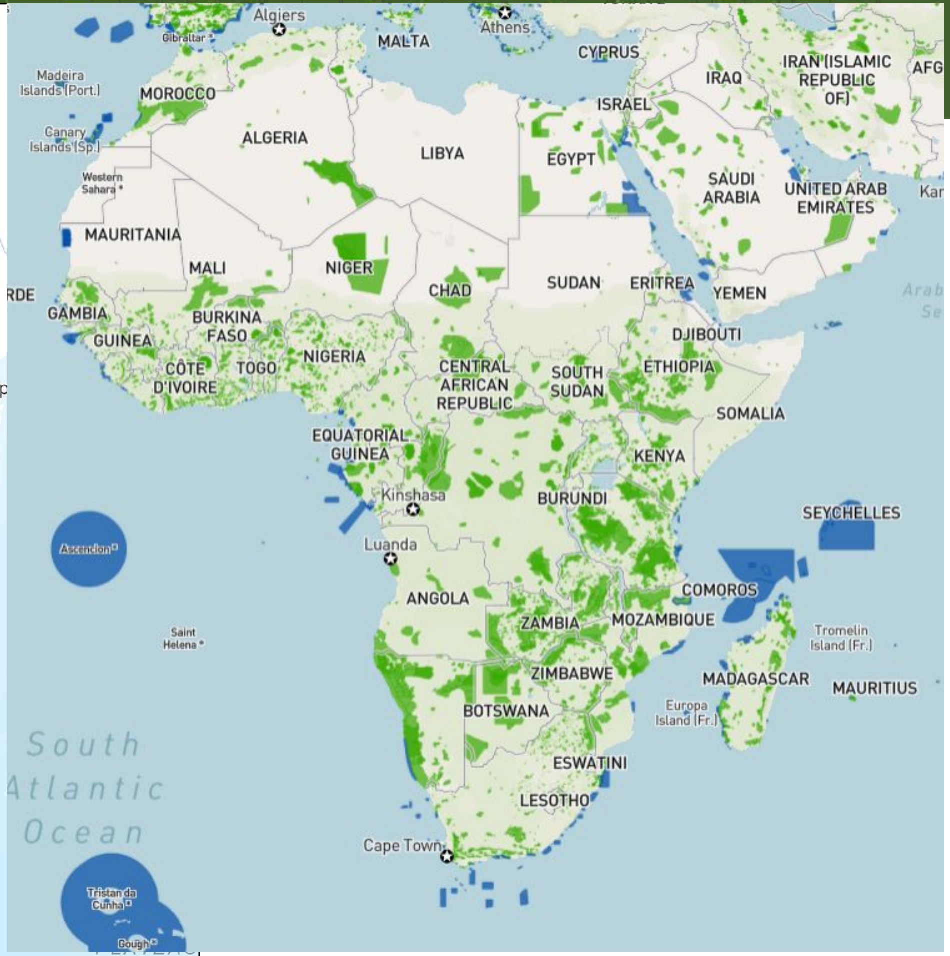
“Effective **conservation and management of at least 30% of lands, inland waters, coastal areas and oceans**, with emphasis on areas of particular importance for biodiversity and ecosystem functioning and services, by the year 2030.”

Biodiversity Protection Levels



Protected area expansion





SOUTH AFRICA'S BIODIVERSITY PROFILE

1 OF THE WORLD'S **17** MEGADIVERSE NATIONS
OF THE TOP **10** NATIONS GLOBALLY
- FOR PLANT SPECIES RICHNESS

2nd HIGHEST PLANT ENDEMISM

3rd HIGHEST WHEN MARINE ENDEMISM IS INCLUDED

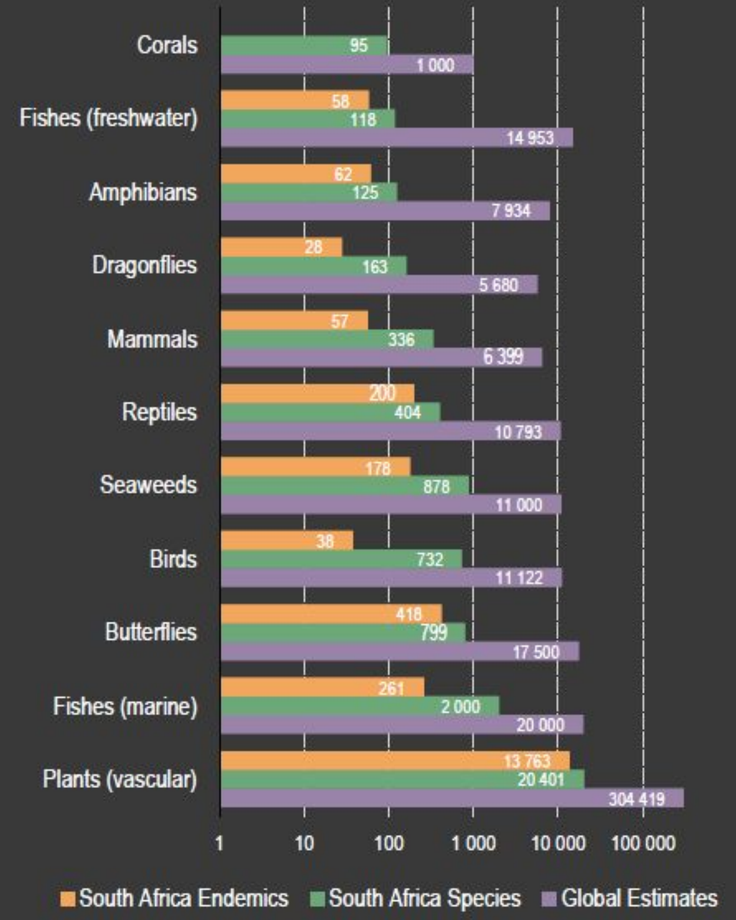
---

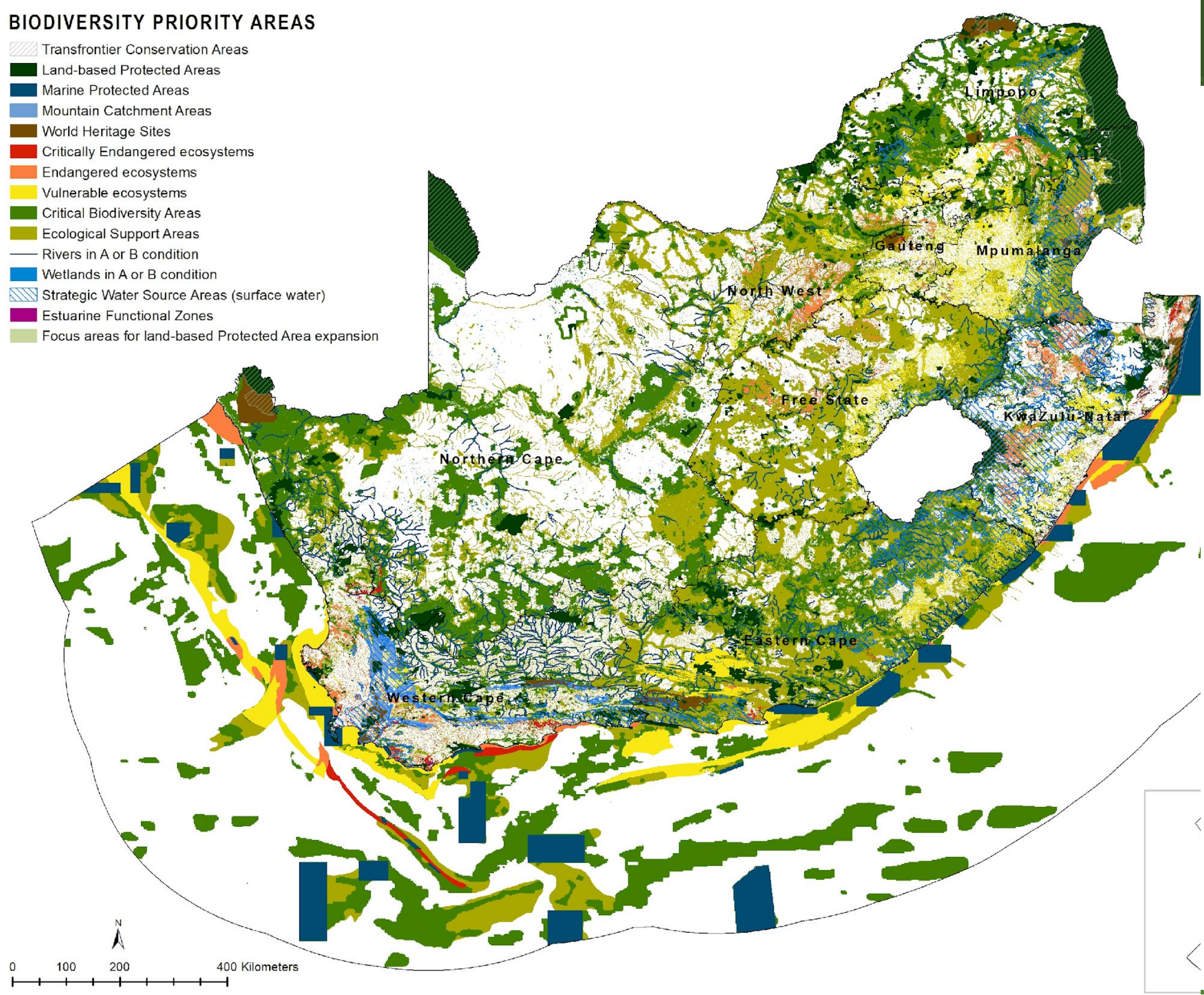
3 OF THE WORLD'S 35 BIODIVERSITY HOTSPOTS

SUCCULENT KAROO
World's only arid hotspot
Highest diversity of succulents in the world

MAPUTALAND-PONDOLAND-ALBANY
Meeting point of 6 different vegetation biomes
8 100 plant species including 1 900 endemic plant species

CAPE FLORISTIC REGION
World Heritage Site
Only biodiversity hotspot found entirely within a single country
<0.5% of Africa, sustaining ~20% of Africa's flora
Smallest of 6 recognized Floral Kingdoms

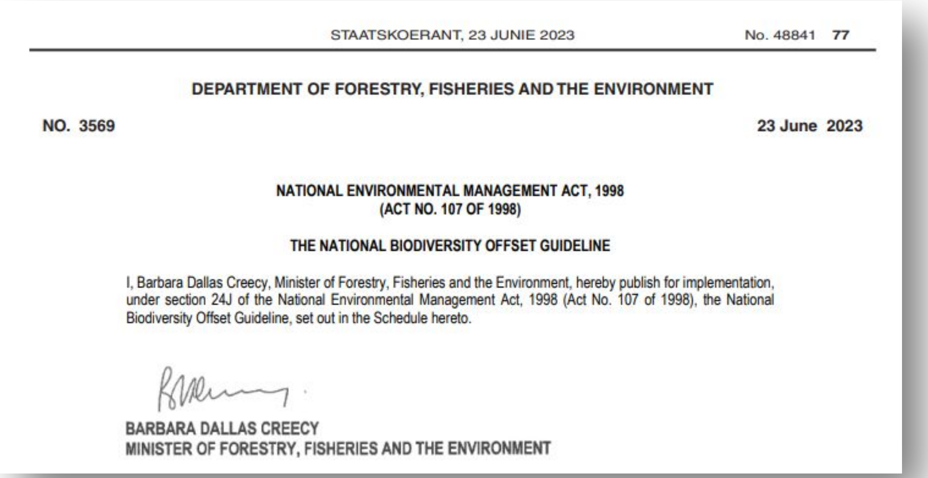




Implications for IEM

- High likelihood of impacts on biodiversity being globally and locally significant.
- **Avoid impacts on PAs and priority biodiversity areas**.
- Rehabilitation is complicated and yields less certain outcomes.
- Risk-averse and precautionary approach = **increasing protection and management of primary biodiversity**.
- Where loss is unavoidable, and residual impacts med-high, then offset.

Biodiversity offsets contribute to/ accelerate protected area expansion


STAATSKOERANT, 23 JUNIE 2023 No. 48841 77

DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT

NO. 3569 23 June 2023

NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998
(ACT NO. 107 OF 1998)

THE NATIONAL BIODIVERSITY OFFSET GUIDELINE

I, Barbara Dallas Creecy, Minister of Forestry, Fisheries and the Environment, hereby publish for implementation, under section 24J of the National Environmental Management Act, 1998 (Act No. 107 of 1998), the National Biodiversity Offset Guideline, set out in the Schedule hereto.

BARBARA DALLAS CREECY
MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT

biodiversity offset *means the measurable outcome of compliance with a formal requirement contained in an environmental authorisation to implement an intervention that has the purpose of counterbalancing the residual negative impacts of an activity, or activities, on biodiversity,* **through increased protection and appropriate management**, *after every effort has been made to avoid and minimise impacts, and rehabilitate affected areas.*

Offsets in the EIA process

PRE-APPLICATION — Pre-application meeting; **identify biodiversity sensitivities**; proposal amendment

SCREENING — Biodiversity triggers; Screening tool; **screen for biodiversity sensitivities**; proposal amendment

SCOPING PHASE — Identify potential biodiv impacts; **biodiv specialist identifies potential need for offset study**; identify alternatives; ToR for assessment;

IMPACT ASSESSMENT PHASE — Assess and evaluate significance of biodiversity impacts; **Undertake offset study, incl potential offset sites**. mitigation measures; EIR, EMPr

REVIEW — Review of assessment **including offset study (without potential offset sites)** and EIS by relevant authorities, public and other I&APs

AUTHORIZATION & IMPLEMENTATION — Approval (**with offset conditions**) or denial; EMPr monitoring and compliance; offset contracts, etc

PUBLIC PARTICIPATION — Engage biodiversity I&APs, fill in biodiversity information gaps

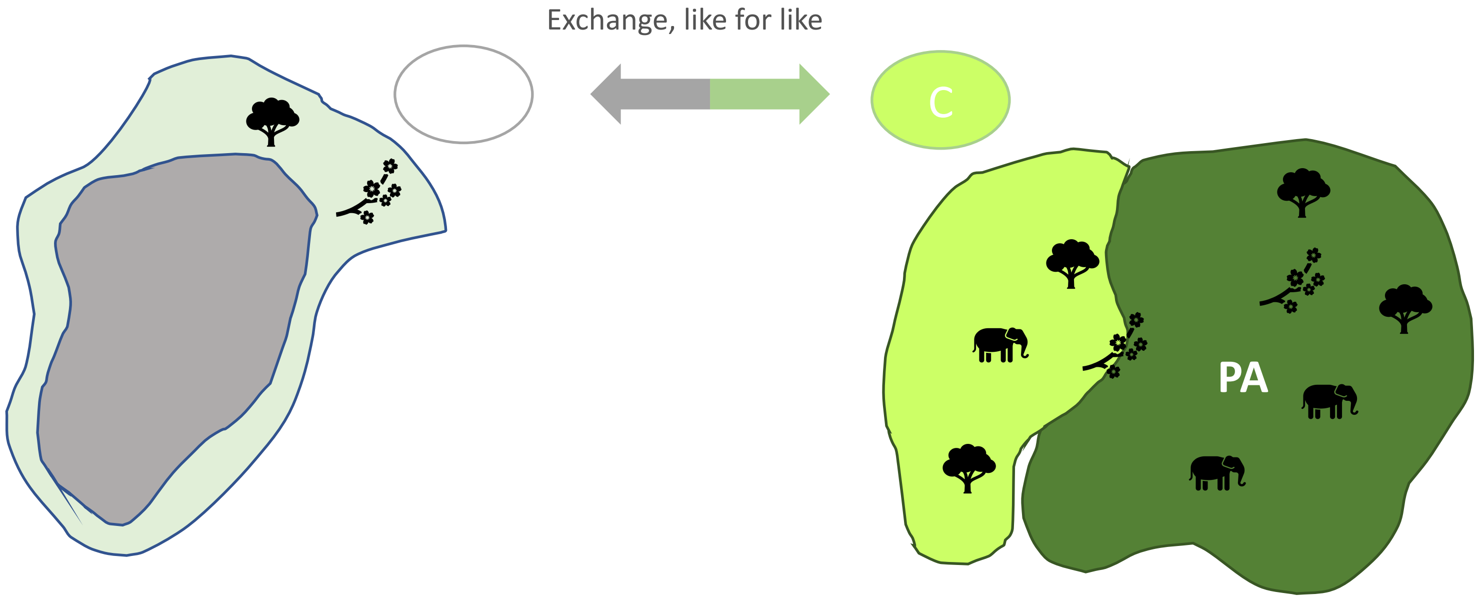
To date, a lot of offsets start late, in Review and EA stage:

- Unpredictable.
- Timeconsuming.
- Isolated, Neglected.
- Ecological functioning may be low.
- Costly and inefficient.
- C,M & E problematic.

SANParks Proactive Biodiversity Offset Scheme

Debits

Development site:
Residual negative biodiversity impact □ offset requirement / **Debits (D)**



Credits

The Offset Scheme:
Proactively secures land in PA expansion zone □ translated into **Credits (C):**
Credit = the Ha of ecosystems contained on the property. Credits costed to include land acquisition, PA declaration; establishment; and 30 yr+ management.

Developer resp. for:

- Cost of acquisition
- Cost of PA declaration and establishment
- Cost of management for 30 years.

SANParks as offset provider/ cons banker resp. for:

- Acquisition of land in priority areas (e.g. PAE zone)
- Declaration and establisment as a PA
- Management of area on behalf of developer.

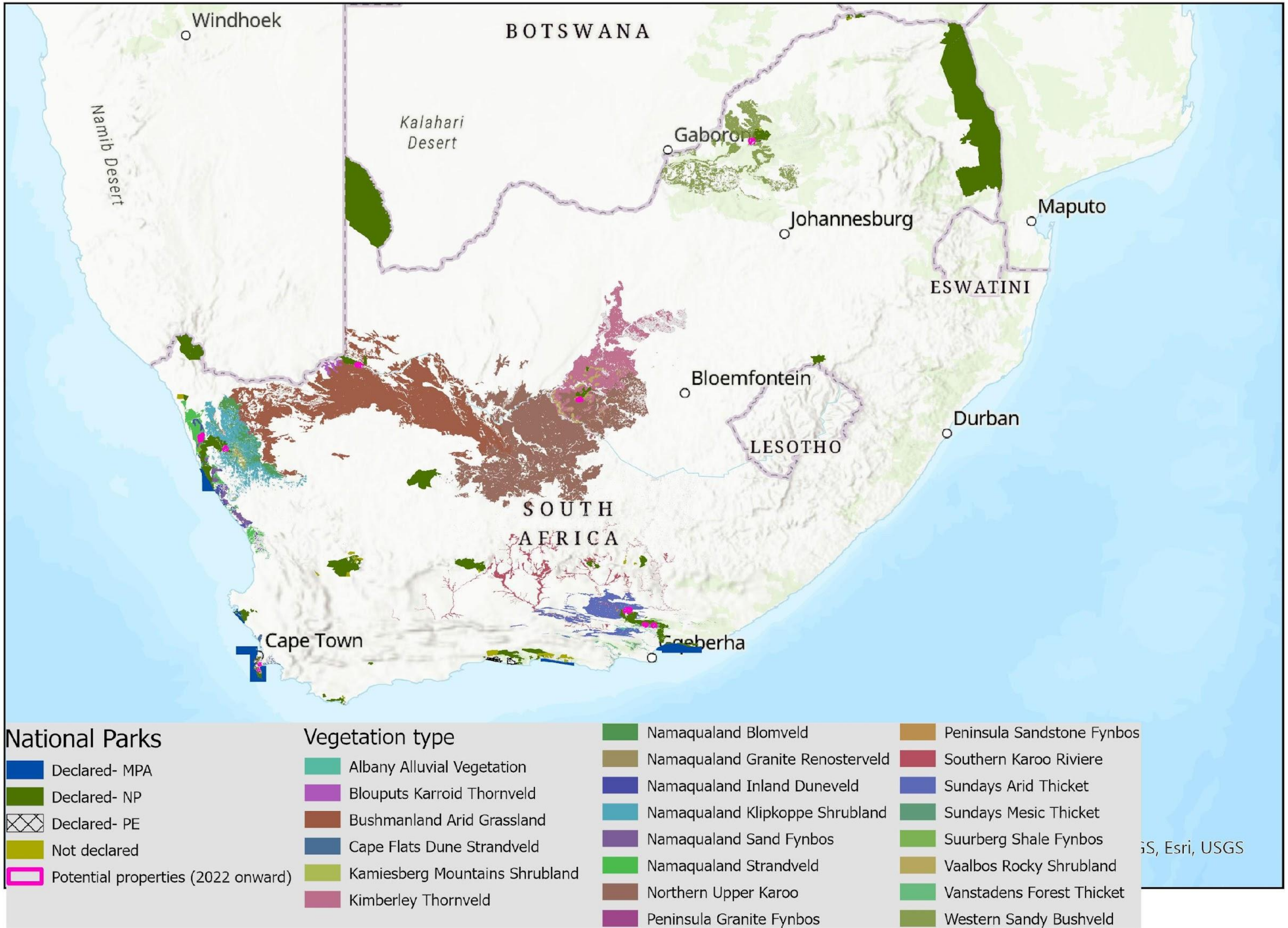
Proactive Offset Scheme implementation

- All new properties that SANParks acquires **as title owner** going forward will used as potential offsets.
- **Once declared**, the ecosystems on the property will be enrolled into an **Offset Credit Ledger**.
- A biodiversity credit = **1 Ha of a terrestrial ecosystem type**, as per the National Ecosystem Classification System, **protected for 30 years**.
- Developers with offset liabilities can purchase credits that meet their liability, as per the like for like principle of offsets.
- Note: Developer is not purchasing property; they are purchasing credits.

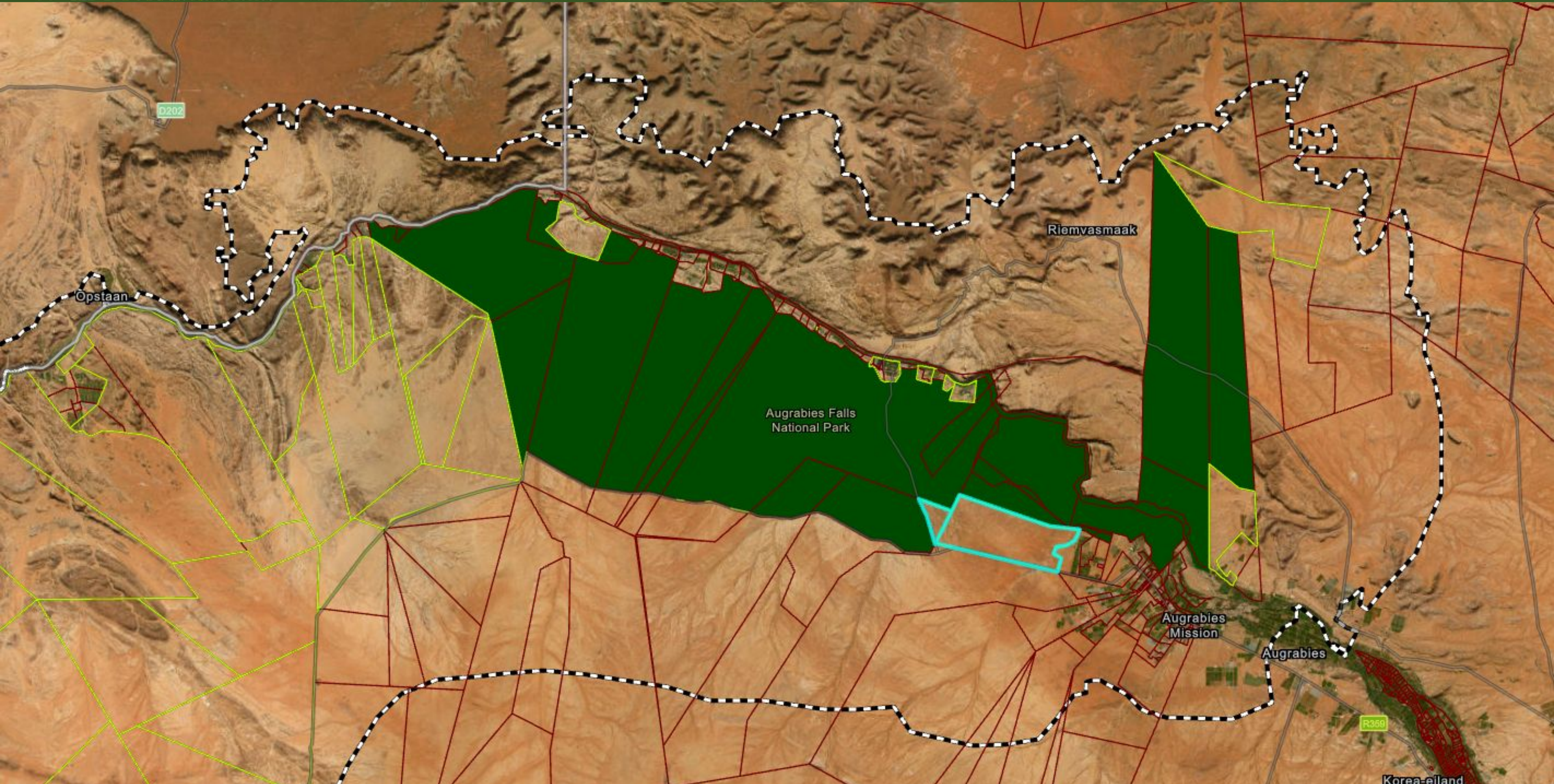
South African
NATIONAL PARKS

Proactive Offset Scheme

18 000+ ha available covering
22 ecosystem types,
over **24** properties.



Augrabies / Namaqua example



Costing Framework – Augrabies example

Available Credits:

Nelshoop 3/12 and Rooipad 9/15	**Bushmanland Arid Grassland**	**1733 ha**
	Blouputs Karroid Thornveld	**304 ha**

Line Item	Description	Rand value in 2024	Price per ha
Reservation fee	Non-refundable option reservation	**R 1 140,215**	**R 560**
Capital Fee		**R11,402,153**	**R 5,598**
Acquisition fee	SANParks valuation of the property	R 4,200,000	R 2,062
Transaction fee	Cost of concluding the purchase; site assessment; Property Ops Plan	R 260,000	R 118
Declaration fee	Cost of the legal processes	R 120,000	R 59
Contingency Management Fee	To cover unanticipated management events	R 5 642,152	R 2770
Establishment costs	Fencing; security; roads; demolition of existing infrastructure; rehab, etc	R 1,200,000	R 589
Annual Management Fee	NPV 2024 subject to annual increase	R 1,128,431*	R 554*

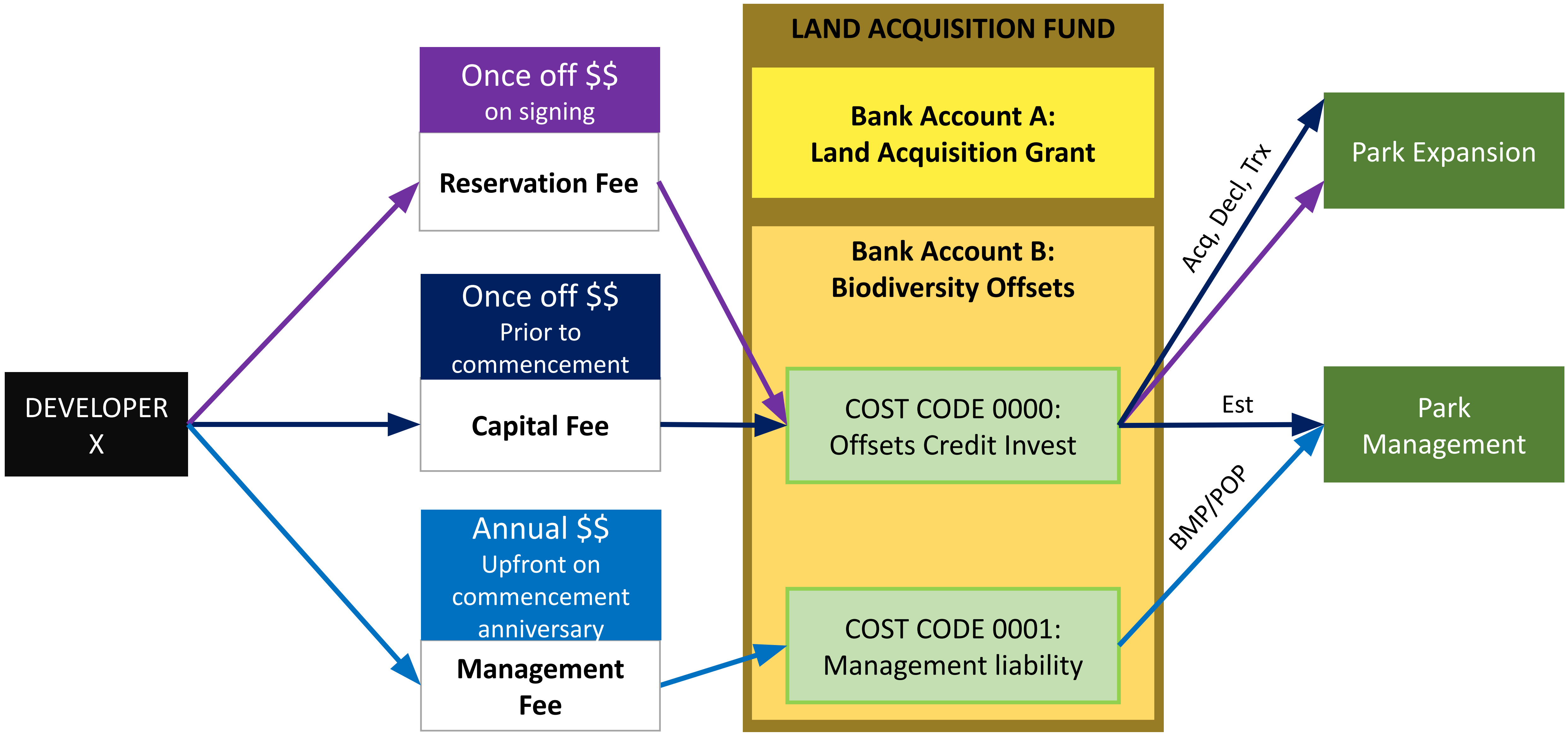
Recoverable Management Costs (30 year liability)

Category	Item	Contribution
Conservation	Alien invasive species	3 – 10%
	Degradation & rehabilitation	0 – 63%
	Freshwater ecosystems	1
	Species of special concern	1 – 11%
	Regional integration	
	Functional ecosystems	
Management	Park expansion	
	Financial management & administration	2,4 – 3%
	Climate change	
	Disaster management	
	Risk	
	Information management	
	Safety, health, environment & quality	
	Communication	
	Environmental management	
	Outcomes	
	Cultural heritage	
	Human capital development	

Category	Item	Contribution
Maintenance	Buildings and Services	
	Fencing	
	Roads, tracks & trails	
Infrastructure & Security	Safety & security	5 – 6%
	Infrastructure	2 – 20%
Tourism	Responsible tourism	0 – 30%
Education & Outreach	Environmental education & awareness	3%
	Stakeholder engagement	
	Employment, business opportunities and skills development	

Baseline Park Management cost/ha (2024)	
Mokala NP	R 431
Namaqua NP	R 165
Augrabies NP	R 554
Addo NP	R 310
Marakele NP	R 704

Financial Management of Offset Funds



The Value proposition of an offset bank/proactive offset scheme

- For Developers:
  - potential to streamline and de-risk development process.
  - expedite development (compliance with Biodiversity Offset conditions of authorisation)
  - Decrease biodiversity offset transaction costs (economies of scale);
  - costs known upfront.

- For SANParks
  - Expedite expansion of National Parks
  - PA expansion in a more coherent and planned fashion.
  - Additional source of funding for expansion and management.

- For Competent Authorities:
  - Assured mitigation.
  - Administrative ease; including timeframes.
  - Aligned with national commitments (for energy and conservation).

Assisting in derisking mining and strategic infrastructure development

- When prospective liabilities become apparent in Project Planning or EIA phases, Proponents can check whether SANParks already holds credits that match development liabilities, and reserve those.

- SANParks to use development planning intel to proactively bank land to meet potential liabilities.

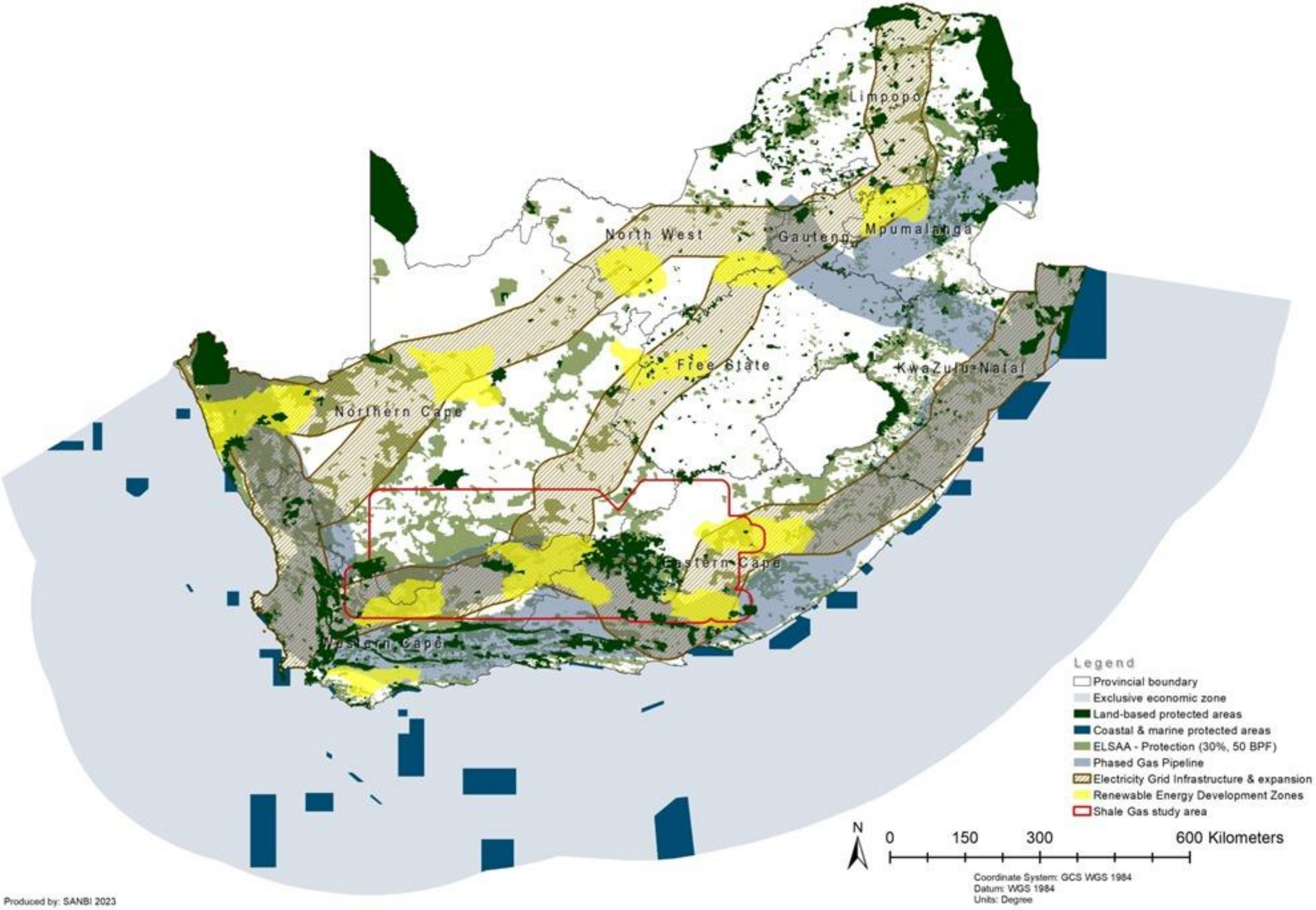


Photo credit: R. de Bruin