

Scaling Financing for Ecosystem- based Adaptation

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Adapting to climate change in South Africa

RESCUE OPERATIONS / 27 JUNE 2024

Climate change wreaks havoc: Major floods in KwaZulu-Natal and Eastern Cape

Godongwana increases disaster recovery funding for provinces, municipalities



Farmer's Weekly
government to provide drought relief



Warning for severe thunderstorms in the Eastern Cape

The South African Weather Service (SAWS) on Sunday issued an Orange Level 6.
3 days ago

SCIENCE | 8.01.2026

Tornado alert in South Africa

In recent years, insurers have cautioned that climate change was making strong winds and wind funnels, including tornadoes, more common in South Africa.

The Citizen

Weather alert: Possible flooding and hail in five provinces

Find out what the latest weather forecast from the SA Weather Service means for your region on 10 February 2026.

2 days ago



When fires, floods and drought become the norm, delaying is no longer an option

The Cost of Catastrophe: Charting a Path to a Resilient South Africa

How much climate finance does South Africa need?

Total Annual Requirement:
South Africa needs R499 billion per year to meet its combined mitigation and adaptation climate goals.



The Current Reality: CPI report shows that there was an annual average of ZAR 188.3 billion in climate finance for 2022-2023.



The Funding Gap: There is therefore an annual financing gap of up to ZAR 311 billion. Adaptation and just transition measures are the most underfunded.



Balancing mitigation and adaptation: May not require a 50/50 balance. Adaptation needs more grant and concessional financing.

The South African Climate Finance Landscape 2025

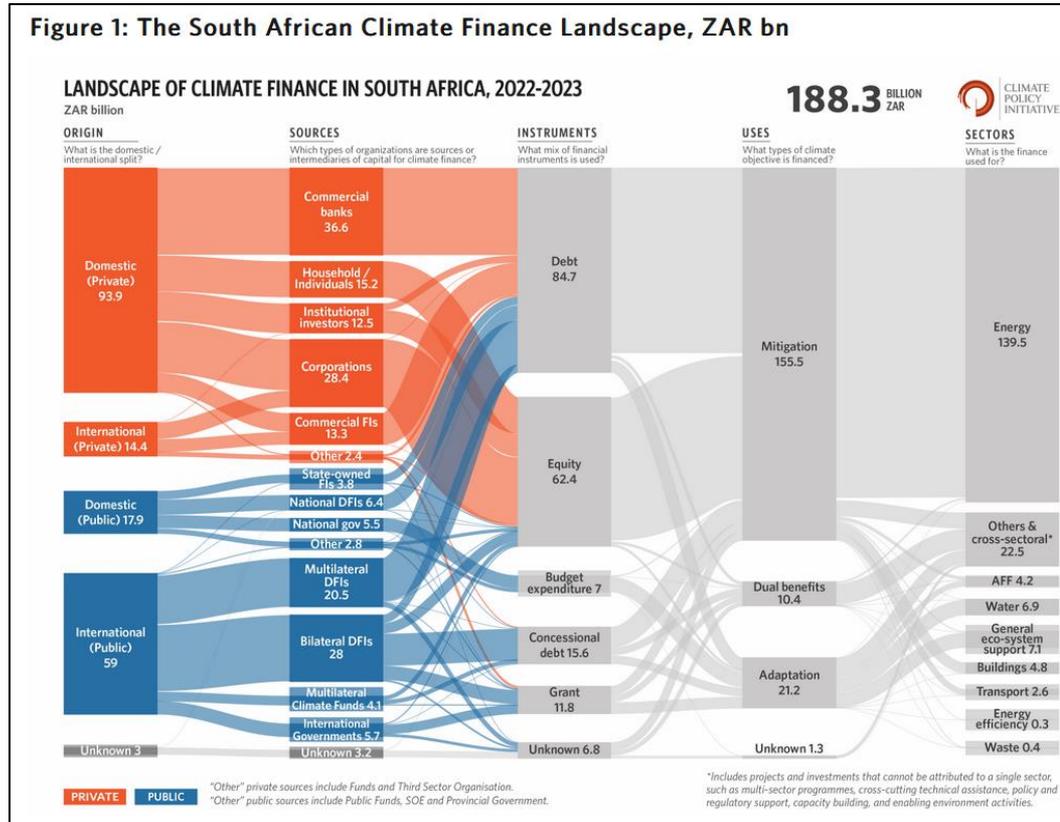
Chavi Meattle, Maddy Taylor, Matthew Price and Pedro de Aragão Fernandes
October 27, 2025



CLIMATE
POLICY
INITIATIVE

South African Climate Finance landscape

Figure 1: The South African Climate Finance Landscape, ZAR bn



Key take away

- **Adaptation finance is lagging.** Only 11.3% of tracked finance supported adaptation.

Barriers to scaling adaptation finance



Absence of Direct

Revenue: Unlike mitigation (renewable energy or electric vehicle projects) which sells a product, adaptation focuses on avoided losses. It is difficult for private investors to capture "prevented damage" as a cash profit.

Measurement &

Standardisation Gap: There is no universal metric (like the "tonne of CO₂") for adaptation. Resilience is context-specific, making it hard for banks to quantify, audit and compare different projects.

Time-Horizon

Mismatch: Adaptation benefits often accrue over 20–30 years, while commercial finance typically demands returns within 5–10 years. The high upfront costs don't align with slow ecological or social payoffs.

High Transaction Costs:

Adaptation needs are often local and small-scale. Managing numerous fragmented projects is administratively expensive for large global funds compared to single, large-scale infrastructure deals.

Nature-Based

Complexity: Ecosystems are "living assets" subject to biological risks (drought, fire), making them harder to de-risk than traditional grey infrastructure.



Scaling financing for Ecosystem-based Adaptation

Move Beyond "Business as Usual": Closing the annual adaptation financing gap requires more than traditional budgeting; it demands a reimagining of how we value nature and resilience.

Design "Investable" Landscapes: Bundle small-scale, nature-based projects into large-scale, **bankable portfolios**.

Pilot the use of financial instruments: Explore instruments such as resilience bonds and biodiversity credits.

Country platforms as a mechanism: Use the Just Adaptation and Resilience Investment Platform (JARIP) to do for "climate adaptation" what the JETP did for "energy."

The South African Opportunity: South Africa made scaling adaptation finance one of the priorities of our G20 Presidency in 2025. Let's use our **G20 leadership** to continue as a global architect of financial innovation. Leverage South Africa's role in the G20 Sustainable Finance Working Group in 2027.

Case Study: Restoring spekboom thicket ecosystems

Spekboom (*Portulacaria afra*) restoration is a powerful nature-based solution that uses drought-resistant flora to combat land degradation and build climate resilience.

Key Benefits



Ecosystem Resilience & Adaptation

- **The "Ecosystem Engineer":** Acts as a keystone species that thrives in arid, degraded soil.
- **Environmental Stability:** Improves water retention, reduces soil erosion and stabilises the ground.
- **Microclimate Creation:** Facilitates the growth of other indigenous species by improving conditions.



Climate change mitigation

- **Carbon Sequestration:** Highly efficient at capturing CO₂.
- **Carbon sponge:** Capable of sequestering 4–10 tonnes of CO₂ per hectare per year.



Biodiversity & Socio-Economic Gains

- **Habitat Revival:** Restores the "thicket" biome, providing a home for endangered species.
- **Green Job Creation:** Labour-intensive projects provide employment.
- **Community Support:** Targets regions like South Africa's Eastern Cape to combat high unemployment.



Image: UNEP/
Todd Brown

How would you finance these adaptation projects?



Mangrove & Saltmarsh Restoration: Protecting and replanting coastal forests that act as a first line of defence, absorbing wave energy and preventing coastal land loss.



Dune Stabilisation: Using specialised vegetation to secure sand dunes, creating a flexible natural barrier that can adapt to sea-level rise more effectively than concrete walls.



Regenerative Rangeland Management: Grazing and soil restoration to prevent desertification, ensuring that grasslands remain productive even during prolonged droughts.



Urban Green Corridors: Creating continuous strips of vegetation through cities to provide "ventilation" that reduces the Urban Heat Island effect and lowers ambient temperatures.



The "Natural Filter" Infrastructure: Restoring the natural functioning of a freshwater ecosystem through labour-intensive earthworks and biological restoration.

Seeds of the future in the present

1

South African National Biodiversity Institute has a programme on ecological infrastructure which "represents a new way of looking at much of our biodiversity, attaching value to it and relating it to the national development agenda".

2

StatsSA and SANBI are developing the use of Natural Capital Accounting in South Africa, focusing on ecosystem accounting. StatsSA has created a ten-year strategy for Natural Capital Accounting in South Africa.

3

Natural Capital Accounting (NCA) is the missing link between ecology and finance. It acts as a bridge that translates the "services" nature provides into the rigorous, standardised data that banks and governments require to make investments.

4

SANParks launched South Africa's first Biodiversity Offset Bank in May 2025, providing a mechanism for developers to purchase credits to offset environmental impacts while funding the expansion and management of protected areas.

5

The Ecological Infrastructure Challenge Fund (EICF): A SANBI-led pilot designed to demonstrate the value of "nature-based" projects at municipal level.

Closing the gap: A call for imagination

Will we continue to pay the price of a changing climate or will we be the architects of the solutions we need?

Thank you