

SANBI

Biodiversity for Life

South African National Biodiversity Institute



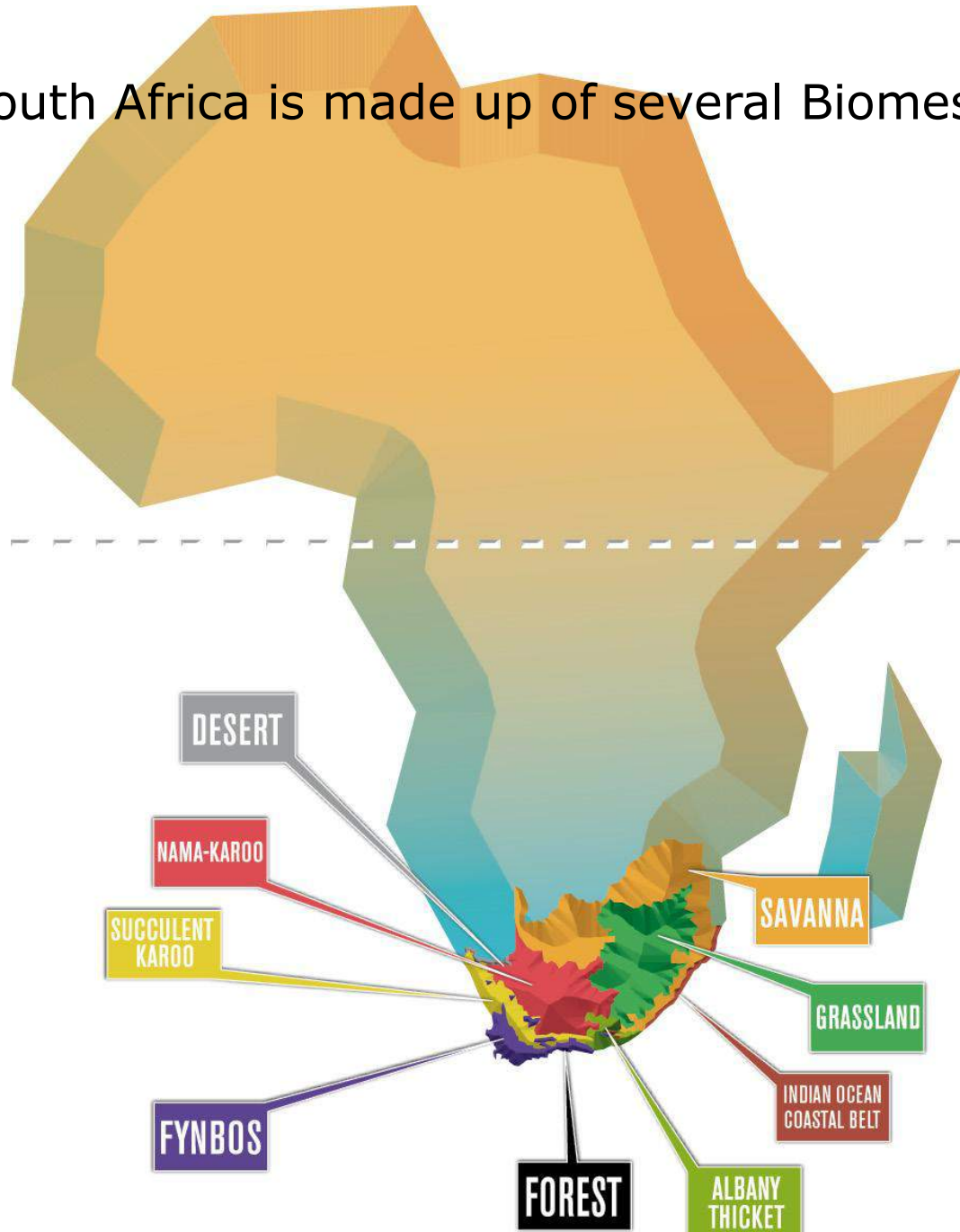
South Africa's Biodiversity & SANBI's role

Satoyama Initiative Regional Workshop in Africa 2015

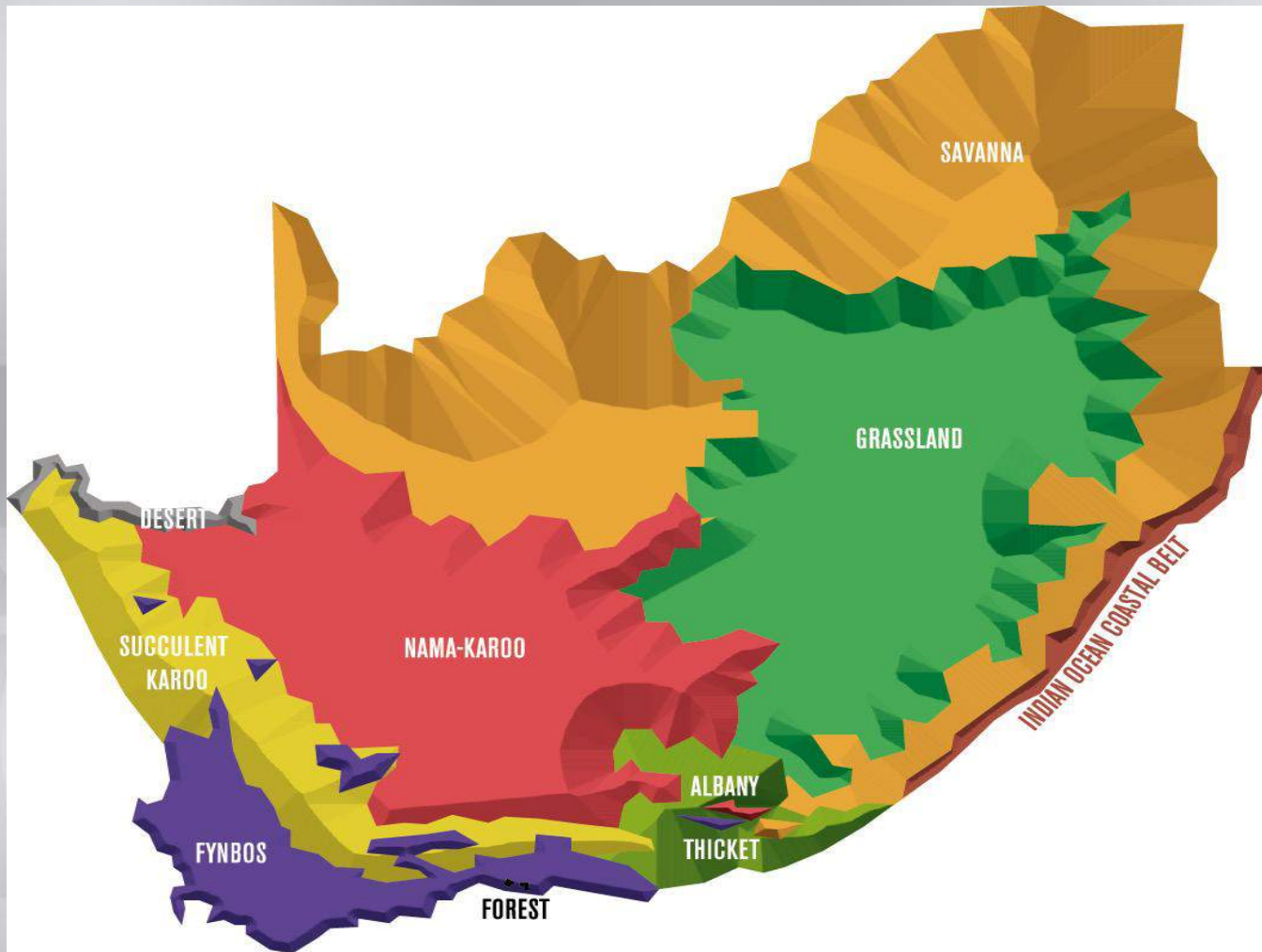
10-12th August 2015

Dr Tanya Abrahamse : CEO SANBI

South Africa is made up of several Biomes...



Each biome is home to its own unique and rich diversity of flora and fauna, making South Africa the third most biodiverse country on the planet



What is Biodiversity

- **Within these BIOMES are a range of ecosystems (wetlands, rivers, mountains, etc)**
- **ECOSYSTEMS are made up of geological features, landscapes and living species (animals & plants)**
- **SA's has the third highest biodiversity in the world because of a wide range of ecosystems that nurse very high numbers of SPECIES, many endemic, unique in the world**
- **Biodiversity (and its ecological goods and services) is the nature we depend on, is natural capital with immense economic value for SA**
- **Threats to biodiversity include habitat change (mainly due to human activity such as urbanization and agriculture), invasive species, unsustainable use (eg overharvesting or over hunting), GMOs, climate change**

The Value of Biodiversity

ECOSYSTEM GOODS & SERVICES such as:

- **Grazing capacity, particularly in our vast Grasslands, and pollination underpin our agricultural industry.**
- **Endemic and unique flora such as the Succulent Karoo and the Fynbos supports the medical and flower industry**
- **Estuaries and near shore marine ecosystems provide nurseries for many of our fisheries upon which many communities and businesses depend**
- **Wetlands naturally purify water, regulate floods, and provide reeds and other material for our craft industry**
- **Our tourism industry relies on our unique natural landscapes**

It has been shown that a high ROI is made when this natural asset is protected, preserved and made resilient for now and the future

South Africa reality

- 500 years of colonial and apartheid history
- Land deprivation for indigenous peoples
- Blacks, the majority of people, moved into bantustans with poor environments, soils, water and productivity (20%) .
- Vast white owned farms/land and in urban areas (80%)
- Small pockets of black ownership of land and forced removals in 20th century (sometimes to create protected areas)
- Migrant labour and large high density townships at edge of formal towns.
- Result - biodiversity and its conservation seen as an occupation for the elite, white, privileged few.
- Yet biodiversity is a national asset that should be used to overcome our crippling inequality and poverty

The Role of SANBI

- WWW.SANBI.ORG
- The Biodiversity Advisor



KEY INFORMATION about SANBI

- **SANBI created by the National Environmental Biodiversity Act of 2004 on the foundations of a 90 years old NBI**
- **A Public entity reporting to the national Dept. of Environment and directly the Minister of Environment**
- **Number of permanent and long term contract staff about 800, (Gardens, Research and Corporate staff)**
- **Based on 11 campuses nation wide, 10 going on 11 National Botanical Gardens**
- **Head Office in Pretoria NBG, largest staff Kirstenbosch NBG**

WHAT WE INFLUENCE

human wellbeing
improved service delivery
job creation

harnessing biodiversity value
investment in ecological infrastructure
ecosystem-based adaptation to climate change
streamlined environmental decision-making

SCIENCE INTO POLICY / ACTION:

information | planning | policy advice | models | tools

BUILDING BIODIVERSITY KNOWLEDGE:

assessments | status | trends | monitoring | modelling

FOUNDATIONS OF BIODIVERSITY:

collections | taxonomy | inventory | maps | classification
of ecosystems and species

WHAT WE DO

GARDENS

windows on biodiversity

HUMAN CAPITAL
DEVELOPMENT

KEY INFORMATION

SANBI Vision

Biodiversity richness for all South Africans

SANBI Mission

To champion the exploration, conservation, sustainable use, appreciation and enjoyment of South Africa's exceptionally rich biodiversity for all people.

GOAL

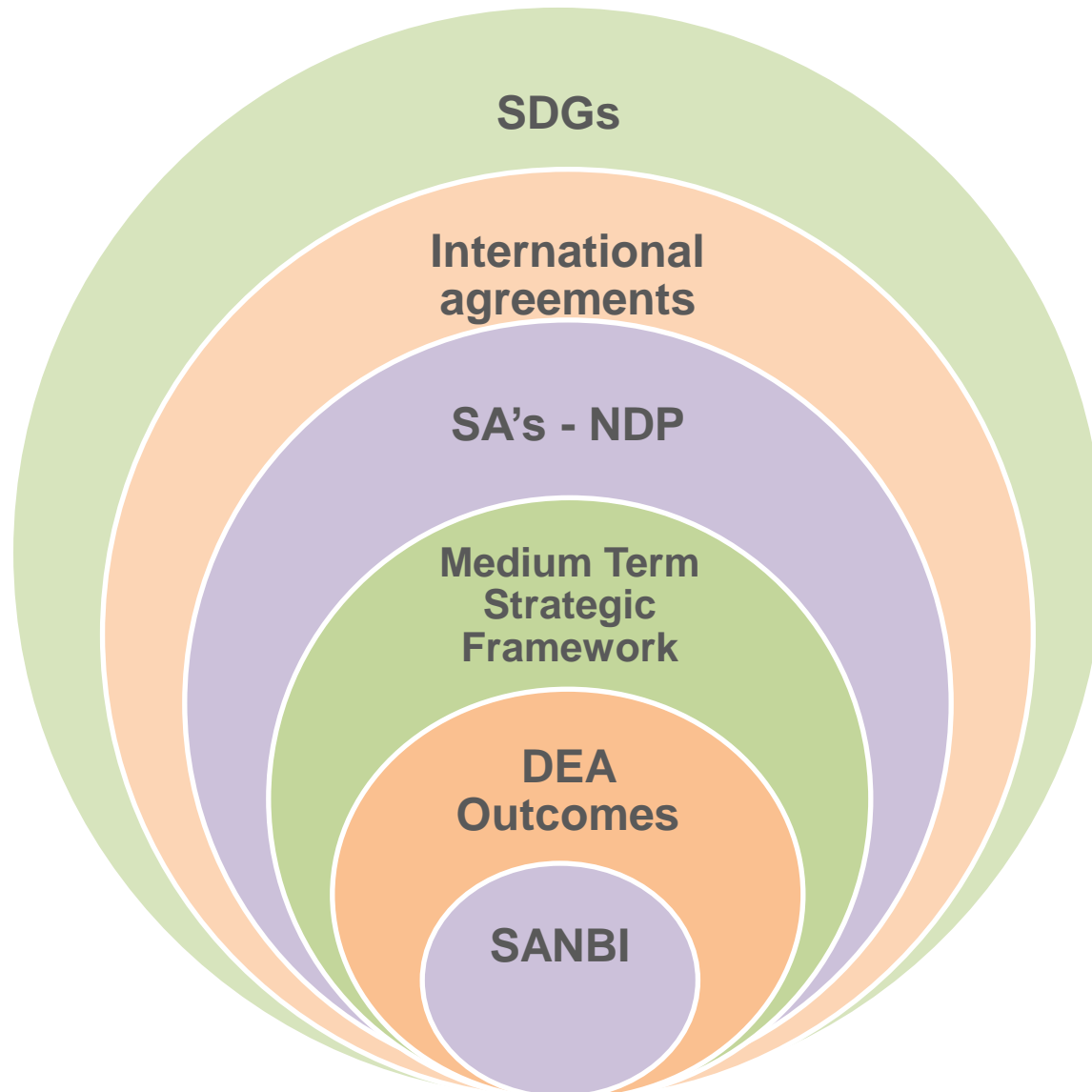
Positioned to lead the biodiversity sector of South Africa and is recognised as the first port of call for knowledge, information and policy advice on biodiversity



POLICY & LEGAL FRAMEWORK

National Environmental Management: Biodiversity Act NEMBA (Act No 10 of 2004) [which includes “at the request of the Minister of Environmental Affairs”]	Gazetted
SANBI role in NEMBA Regulations: Threatened or Protected Species; CITES including the National Scientific Authority; Alien and Invasive Species	Gazetted
Obligations in the National Biodiversity Framework (NBF) (the five year plan from Cabinet approved 20 year vision National Biodiversity Strategic Action Plan (NBSAP)	Gazetted
Obligations in Minister’s Delivery Agreement - Outcome 10 mandate and now on the MTSF targets	Published / to be published
The Climate Change Response White Paper – SANBI designated a role in delivering Long Term Adaptation Scenarios for the bio-natural resources	Published

SANBI's contribution to the SDG's



SANBI 6 Programmes

P1: Render effective & efficient corporate services - **STRONG INSTITUTION**

P2: Manage & unlock benefits of the network of National Botanical Gardens as windows into South Africa's biodiversity - **GARDENS**

P3: Build the foundational biodiversity science - **SPECIES & ECOSYSTEMS**

P4: Assess, monitor & report on the state of biodiversity and increase knowledge for decision making (including adaptation to climate change) – **MONITOR THE STATE OF BIODIVERSITY**

P5: Provide biodiversity policy advice & access to biodiversity information, and support for climate change adaptation – **TOOLS TO MANAGE BIODIVERSITY BETTER**

P6: Provide human capital development, education & awareness in response to SANBI's mandate – **SKILLED PEOPLE**

Programme 2 Strategic objectives :

- i. Network of National Botanical Gardens are managed & maintained,**
- ii. Revenue generating activities are strengthened in all NBGs**

INDICATORS OF SUCCESS

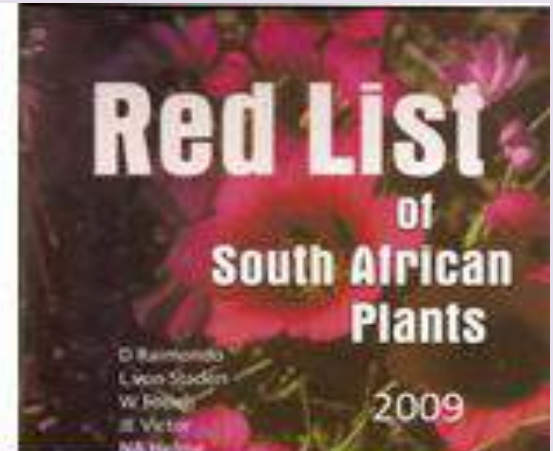
Number of new NBGs established & operational

Increased representation & display of indigenous plants in the living collections of SANBI's NBGs or the Millennium Seed Bank.

Number of best-practice maintenance, development & capital infrastructure projects completed across SANBI's NBGs

Percentage of own income & visitor numbers increased through expanded & more effective revenue generating activities in NBGs

Programme 3: Build the foundational biodiversity SCIENCE



Programme 3 Strategic Objective:

Foundational information about species & ecosystems in South Africa is developed & maintained

INDICATORS OF SUCCESS

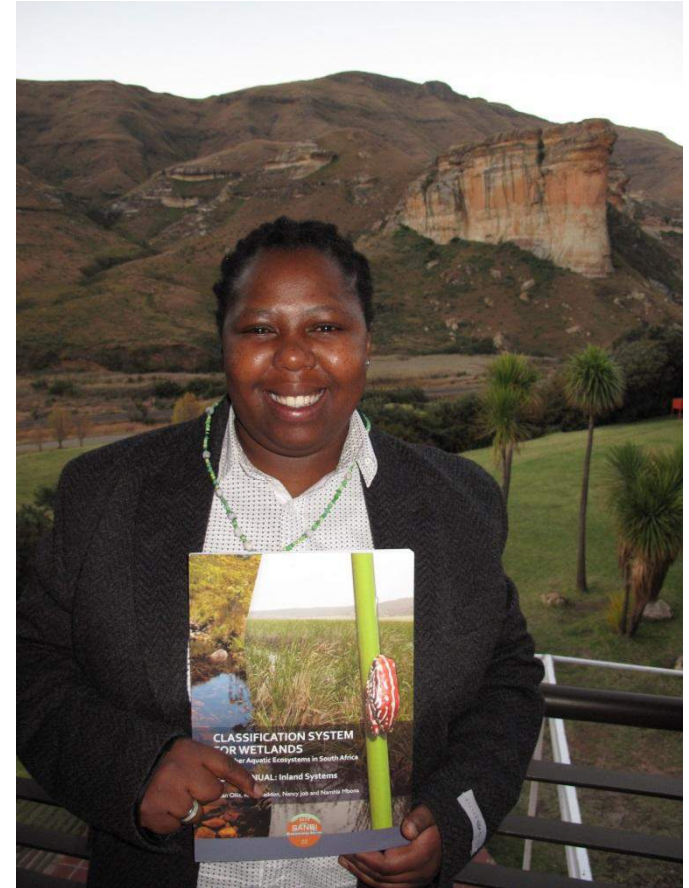
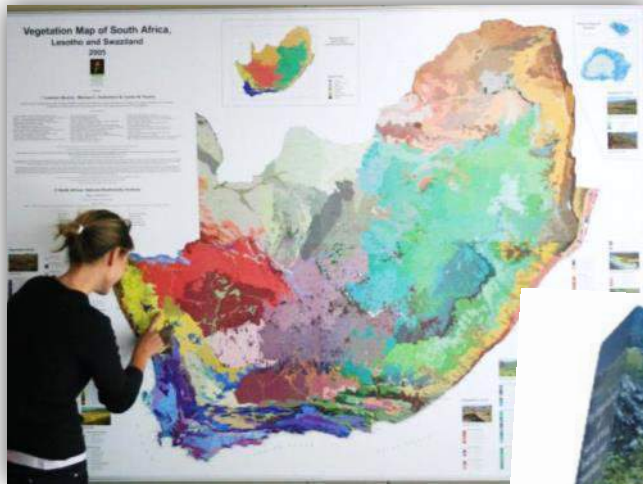
Number of quality controlled records added to **spatial data for species**

Number of **species for which information has been compiled**

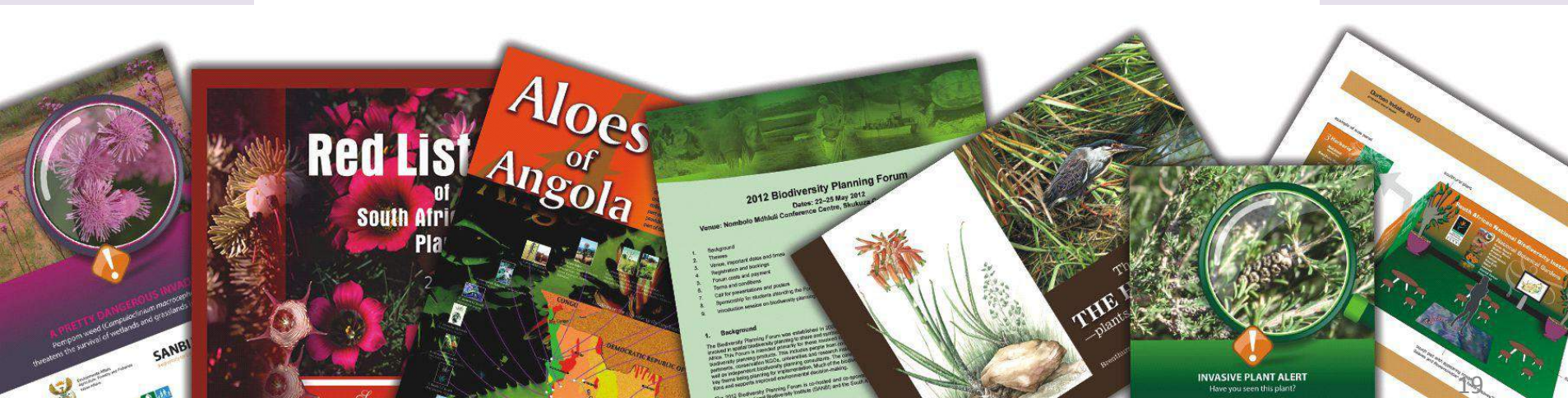
Number of **environments for which ecosystem classification systems developed**

Number of **national maps showing distribution of ecosystems**

Ecosystem classification & mapping



Programme 4: Assess, MONITOR & report on the STATE OF BIODIVERSITY & increase knowledge for decision making (including adaptation to climate change)



PROGRAMME 4 - Strategic Objectives :

- i. New biodiversity knowledge created ;**
- ii. Scientific evidence on the status of biodiversity and the risks and benefits is provided.**

INDICATORS OF SUCCESS

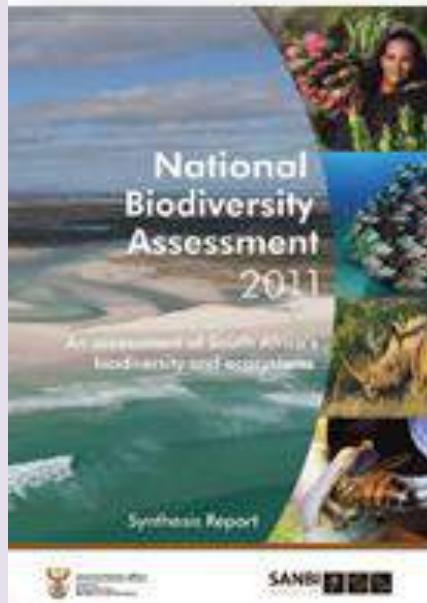
Number of **research papers published in ISI journals**

Number of national scientific synthesis & assessment **reports produced**

Annual updates of **specie assessments to support NEMBA regulations**

Programme 5: Provide biodiversity policy advice & access to biodiversity information & support for climate change adaptation

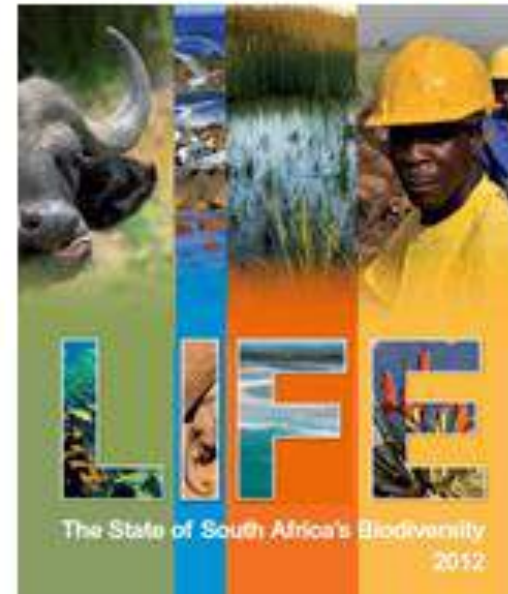
Species & Ecosystem Assessments



the RED LIST

South Africa is a world leader in the Red Listing process, which is an internationally recognised method for assessing the threat status of individual species, based on their likelihood of extinction. As a result of pressures such as natural habitat loss and invasive alien species, the Red Listing process shows that:

- 
ONE in two of our island **MAMMAL** species is **THREATENED**
- 
ONE in five **FRESHWATER FISH** species is **THREATENED**
- 
ONE in seven **FROG** species is **THREATENED**
- 
ONE in seven **BIRD** species is **THREATENED**
- 
ONE in eight **PLANT** species is **THREATENED**
- 
ONE in two **NEW REPTILES** is **THREATENED**
- 
ONE in two **BUTTERFLY** species is **THREATENED**



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SANBI
Biodiversity for Life

“ Helping you find the right biodiversity information from SANBI ”

- Planning and Assessment
- Conservation and Industry
- Research and Modelling
- Participation
- Online Biodiversity Data
- Access and Policy

Planning and Assessment

Conservation and Industry

Research and Modelling

Participation

Online Biodiversity Data

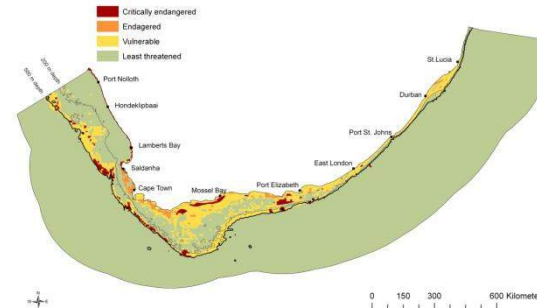
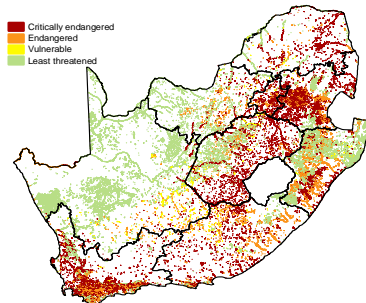
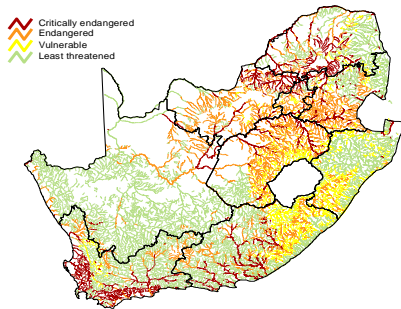
Access and Policy

Planning and Assessment

South Africa has a wealth of valuable, natural resources which are under threat of degradation by competing land-uses. The Planning and Assessment section of the Biodiversity Advisor looks at the...

[Find Out More](#)

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PROGRAMME 5 - Strategic Objectives :

- i. Tools to support management & conservation of biodiversity developed & applied**
- ii. Access to biodiversity data, information & knowledge provided**
- iii. Scientific advice to support national & international policy processes provided**
- iv. Policy support on climate change adaptation provided to inform national & international decision making**

INDICATORS OF SUCCESS

Number of tools developed to support mainstreaming of biodiversity assets & ecological infrastructure in production sectors & resource management

Mining and Biodiversity Guidelines

Number of coordination or learning mechanisms convened to share lessons and build capacity **SANBI National Biodiversity Planning Forum**

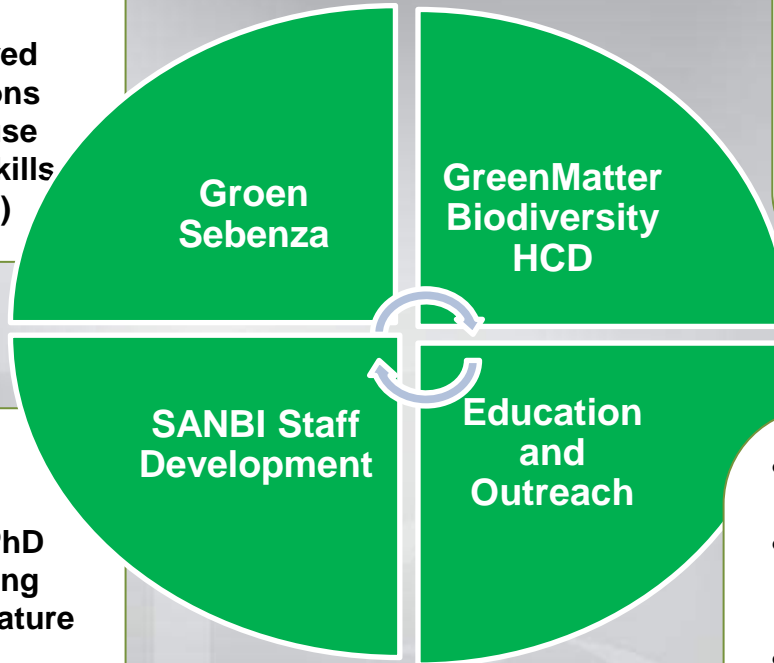
Percentage of policy advice requests from DEA, provinces, municipalities & other organs of state responded to in timeframe

Number of data sets on the Biodiversity Advisor & increase in users

An effective National Implementing Entity to the Global Adaptation Fund shares lessons and experiences on a number of national &/or international platforms to inform climate change adaptation policy

Programme 6: Provide human capital development, biodiversity education & awareness

- 946 incumbents skilled (277 school leavers & 669 unemployed graduates)
- 178 permanently employed
- 43 host partner institutions
- Shared training & in-house mentoring (life & work skills environment & technical)



- Bursary Scheme
- Fellowships
- Teacher Development Network
- Career Guidance Toolkit
- Organisational & HR Development Network
- Environmental Skills Summit
- Database tool for courses & course providers

- Staff bursaries awarded: 24 Undergraduates, 5 Honours, 10 Masters, 6 PhD
- 25 work-integrated learning students (Horticulture, Nature Conservation)
- 39 Interns
- Post-graduate studentships: 3 Honours, 24 Masters, 8 PhD, 9 Post Doc

- Garden learning & awareness \pm 44 200 beneficiaries
- Environmental Calendar Days & weeks celebrated \pm 8350 beneficiaries
- School expos & career day visits 1730 beneficiaries
- Garden & Community Holiday programmes 320 beneficiaries
- Community greening 28 schools
- Outreach bus transporting seniors, youth and children 6000 beneficiaries



Thank you

