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GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT

NO. 7773 **5 August 2026**

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT NO. 10 OF 2004)

DRAFT NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN 2026-2035

I, David Maynier, Minister of Forestry, Fisheries and the Environment, hereby publish the draft National Biodiversity Strategy and Action Plan 2026-2035 (draft NBSAP) for public comment in terms of sections 99 and 100 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), as set out in the Schedule hereto.

The NBSAP is the primary instrument for implementing the Convention on Biological Diversity (CBD) at a national level, setting out a country's vision, priorities, targets, and actions for conserving and sustainably using biodiversity. It determines a nation's contribution toward global goals while reflecting its specific national circumstances, priorities and capabilities. Following the adoption of the Kunming Montreal-Global Biodiversity Framework, the CBD called on all parties to revise and update their NBSAPs to align with the new global goals and targets. The updated NBSAP serves as the main national vehicle to translate global ambitions into concrete, measurable actions. It mandates a shift toward a whole-of-government and whole-of-society approach to secure South Africa's wealth of biodiversity.

Members of the public are invited to submit written comments to this Notice within 30 days from the date of publication of this Notice in the Government *Gazette* or the newspaper, whichever date occurs last, to the following addresses:

By post to: The Director-general: Department of Forestry, Fisheries and the Environment
Attention: Ms Malepo Phoshoko
Private Bag X44 7, PRETORIA, 0001
By hand at: Reception, Environment House, 473 Steve Biko Road, Arcadia, Pretoria, 0083
By email: nbsapcomments@dffe.gov.za

Any inquiries in connection with this Notice can be directed to Ms Malepo Phoshoko at Email: MSPhoshoko@dffe.gov.za or Cellphone: 066 420 0215
A copy of the draft NBSAP 2026-2035 can be accessed at https://www.environment.gov.za/legislation/gazetted notices

Comments received after the closing date may not be considered.

DAVID MAYNIER, MP
MINISTER OF FORESTRY, FISHERIES AND ENVIRONMENT

SCHEDULE

South Africa's National Biodiversity Strategy and Action Plan 2026-2035

Foreword

[Ministerial foreword to be added]

Executive summary

[Executive summary to be added]

Acknowledgements

[Acknowledgements to be added]

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Acronyms

The NBSAP aligns with the definitions of terms as used in the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity (DFFE, 2023). Additional definitions of South African terminology can be found in the Lexicon of Spatial Biodiversity Assessment, Prioritisation and Planning in South Africa (SANBI, 2023).

ARC	Agricultural Research Council
AU BSAP	African Union Biodiversity Strategy and Action Plan
BABS	Bioprospecting, Access and Benefit Sharing
BHCDS	Biodiversity Human Capital Development Strategy
BIMS	Biodiversity Information Management System
BioPANZA	BioProducts Advancement Network South Africa
CBA	Critical Biodiversity Area
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CMA	Catchment Management Agency
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COGTA	Department of Cooperative Governance and Traditional Affairs
CSIR	Council for Scientific and Industrial Research
DoA	Department of Agriculture
DLRRD	Department of Land Reform and Rural Development
DFFE	Department of Forestry, Fisheries and the Environment
DSBD	Department of Small Business Development
DSI	Digital Sequence Information
DSTI	Department of Science, Technology and Innovation
DTIC	Department of Trade, Industry and Competition
DWS	Department of Water and Sanitation
EbA	Ecosystem-based Adaptation
Eco-DRR	Ecosystem-based Disaster Risk Reduction
EDGE	Evolutionarily Distinct and Globally Endangered
EEZ	Exclusive Economic Zone
EGIS	Environmental Geographic Information System
EIA	Environmental Impact Assessment
EPR	Extended Producer Responsibility
ESA	Ecological Support Area
ESG	Environmental, Social and Governance
FPIC	Free, Prior and Informed Consent
GDP	Gross Domestic Product
GMO	Genetically Modified Organism
IDP	Integrated Development Plan
IPLCs	Indigenous Peoples and Local Communities
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IUCN	International Union for Conservation of Nature
JSE	Johannesburg Stock Exchange
KMGBF	Kunming-Montreal Global Biodiversity Framework
LDN	Land Degradation Neutrality
LMO	Living Modified Organism
METT-SA	Management Effectiveness Tracking Tool – South Africa
MINMEC	Minister and Members of Executive Councils Committee

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MINTEC	Ministerial Technical Committee
MPA	Marine Protected Area
NBA	National Biodiversity Assessment
NBES	National Biodiversity Economy Strategy
NBF	National Biodiversity Framework
NBFP	National Biodiversity Finance Plan
NBSAP	National Biodiversity Strategy and Action Plan
NDF	Non-Detriment Finding
NEMA	National Environmental Management Act
NGO	Non-Governmental Organisation
NIKMAS	National Indigenous Knowledge Management System
NIKSO	National Indigenous Knowledge Systems Office
NISCWT	National Integrated Strategy to Combat Wildlife Trafficking
NISSAP	National Invasive Species Strategy and Action Plan
NPAES	National Protected Area Expansion Strategy
NRF	National Research Foundation
NSAPCWR	National Strategic Action Plan for the Conservation and Sustainable Use of Crop Wild Relatives
NSBA	National Spatial Biodiversity Assessment
NWMS	National Waste Management Strategy
OECD	Organisation for Economic Cooperation and Development
OECMs	Other Effective Area-based Conservation Measures
PACA	Protected and Conserved Areas Database
PDIs	Previously Disadvantaged Individuals
RLI	Red List Index
SADC	Southern African Development Community
SAEON	South African Environmental Observation Network
SAIAB	South African Institute for Aquatic Biodiversity
SALGA	South African Local Government Association
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SAPS	South African Police Service
SDGs	Sustainable Development Goals
SEEA	System of Environmental-Economic Accounting
SMMEs	Small, Medium and Micro Enterprises
SPLUMA	Spatial Planning and Land Use Management Act
Stats SA	Statistics South Africa
SWSAs	Strategic Water Source Areas
TOPS	Threatened or Protected Species
TSC	Technical and Scientific Cooperation
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WRC	Water Research Commission

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1 Introduction

1.1 About the NBSAP

South Africa is a Party to the Convention on Biological Diversity (CBD), having ratified the agreement in 1995. The CBD is defined by three main objectives: (1) the conservation of biological diversity; (2) the sustainable use of its components; and (3) the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. In 2022, the Parties to the CBD adopted the Kunming-Montreal Global Biodiversity Framework (KMGBF), an ambitious plan that seeks to implement broad-based action to bring about a transformation in our societies' relationship with biodiversity by 2030 and halt the ongoing loss of biodiversity on which humanity depends.

In accordance with Article 6 of the CBD, all contracting parties are required to develop and implement a National Biodiversity Strategy and Action Plan (NBSAP) for the conservation and sustainable use of biological diversity. The NBSAP is the primary instrument for implementing the CBD at a national level, setting out a country's vision, priorities, targets, and actions for conserving and sustainably using biodiversity. It determines a nation's contribution toward global goals while reflecting its specific national circumstances, priorities and capabilities. Following the adoption of the KMGBF, the CBD called on all parties to revise and update their NBSAPs to align with the new global goals and targets. The updated NBSAP serves as the main national vehicle to translate global ambitions into concrete, measurable actions (see Figure 7). It mandates a shift toward a whole-of-government and whole-of-society approach to secure South Africa's wealth of biodiversity.

1.2 Previous NBSAPs

This document is South Africa's third NBSAP, following two previous iterations developed to fulfil obligations under the CBD.

South Africa's **first NBSAP** (DEAT, 2005) was strongly based on the first comprehensive National Spatial Biodiversity Assessment (NSBA 2004), which provided a systematic landscape approach to conservation across terrestrial, freshwater, estuarine, and marine environments. An analysis of implementation found that 54% of its 122 activities were fully or substantially achieved. Among these were a number of activities related to institutional effectiveness, including the coordination of provincial spatial biodiversity plans and the gazetting of the first National Biodiversity Framework in 2009. Lessons that were learnt included that mainstreaming biodiversity often requires far more time to effect systemic change than was anticipated, and also often relies on opportunities that arise outside of the direct control of the biodiversity sector. Additionally, the institutional context can change significantly over a 10-year period, and some overly specific activities may become obsolete over the course of implementation.

The **second NBSAP (2015–2025)** (DFFE, 2015) was successful in encouraging the expansion of the national protected area estate, effectively meeting and exceeding land-based protected area targets by 2020, largely through biodiversity stewardship, and achieving a dramatic increase in marine protection from less than 0.5% to 5.4%. Technical achievements included the development of the first integrated map of ecosystem types for the country and the implementation of Natural Capital Accounting to provide standardised statistics for protected areas (Stats SA, 2021) and strategic water source areas (Stats SA, 2023a). The fourth National Biodiversity Assessment was released in 2025, reflecting its maturation since

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the NSBA 2004 into a comprehensive and collaborative system for assessing South Africa's biodiversity status. Despite these milestones, progress was uneven. While most strategic outcomes made some progress, only five (5) out of 22 were fully achieved. The primary cause was a pervasive lack of consistent monitoring, which left 14 outcomes 'in progress' and three with their status completely unknown. Lessons included the need to balance feasibility and ambition, to avoid missing overly ambitious targets by large margins, or easily exceeding modest targets. Institutional performance plans of key government institutions served as the most effective accountability mechanism for implementing activities and achieving targets, while regular, officially released, public reports provided transparent progress towards tracking targets. Despite nominal growth in funding over this period, there was a decline in real purchasing power of biodiversity expenditure. A heavy reliance on government funding and the shrinking value of biodiversity funding hampered the ability to scale up important biodiversity interventions.

2 National context for biodiversity

2.1 Status of South Africa's biodiversity

South Africa is one of the world's megadiverse countries, hosting three of the world's 36 biodiversity hotspots and ranking highly in species diversity and endemism (Figure 1; SANBI, 2025). Almost 1 000 distinct ecosystem types have been described across the varied terrestrial, freshwater, estuarine and marine realms. The country is home to over 20,000 indigenous plant species, 60.5% of which are found nowhere else on Earth. South Africa has identified 263 terrestrial Key Biodiversity Areas, which are sites of global biodiversity significance. South Africa is amongst the few regions in the world that still boasts the presence of mega-herbivores, alongside a diversity of ungulates that play a critical role in managing the structure and function of savanna and grasslands. This natural heritage is a foundation for the economy and society (Figure 1). It is a source of edible plants and harvested marine species and supports extensive rangelands and crop agriculture. Strategic water source areas are vital ecological infrastructure that provide 50% of the nation's water from just 10% of its land area.

South Africa's marine biodiversity is globally important because of its unique location where the cold Benguela Current and warm Agulhas Current converge, creating highly diverse marine habitats that support an exceptional range of species and ecosystems. The South African coastline extends across 3,000 kilometres, encompassing diverse ecosystems including rocky shores, sandy beaches, estuaries, kelp forests, coral reefs, and deep-sea environments, making South Africa one of the world's recognised marine biodiversity hotspots with high levels of endemic species found nowhere else on Earth. The country is home to more than 13,000 recorded marine species, including threatened animals such as African penguins, whales, sharks, turtles, and seabirds, while its extensive kelp forests rank among the most productive globally. South Africa also contributes significantly to global marine conservation through the recent expansion of marine protected areas (Operation Phakisa, 2019), which support ecosystem resilience, fisheries sustainability, climate regulation, and species protection. However, marine ecosystems face increasing threats from climate change, overfishing, pollution, coastal development, habitat degradation, and illegal harvesting, with rising sea temperatures and ocean acidification further affecting biodiversity and species distribution. In response, government bodies, researchers, conservation organisations, and coastal communities continue to work together to strengthen ocean governance, promote sustainable ocean economies, advance scientific research, and improve justice

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and equity, while safeguarding marine biodiversity for future generations, highlighting the country's role as both a national treasure and a globally significant ecological resource.

South Africa contains approximately 290 functional estuaries that provide critical habitat for highly diverse, endemic, and threatened species of fish, birds, invertebrates, and plants. As vital components of the country's broader coastal and wetland ecological infrastructure, these systems enhance climate resilience. Despite their limited spatial footprint, they serve as crucial natural barriers that protect human communities from the impacts of extreme weather events. However, these ecosystems remain under increasing pressure from pollution, habitat modification, freshwater abstraction, climate change, and unsustainable coastal development. Their conservation and restoration are therefore essential for maintaining ecological resilience, biodiversity, and the socio-economic benefits they provide to coastal communities and the broader ocean economy.

The R27.7 billion biodiversity tourism sector serves as a primary example of how ecological assets drive economic development and job creation, supporting over 90,000 positions in 2019 (Stats SA, 2024).

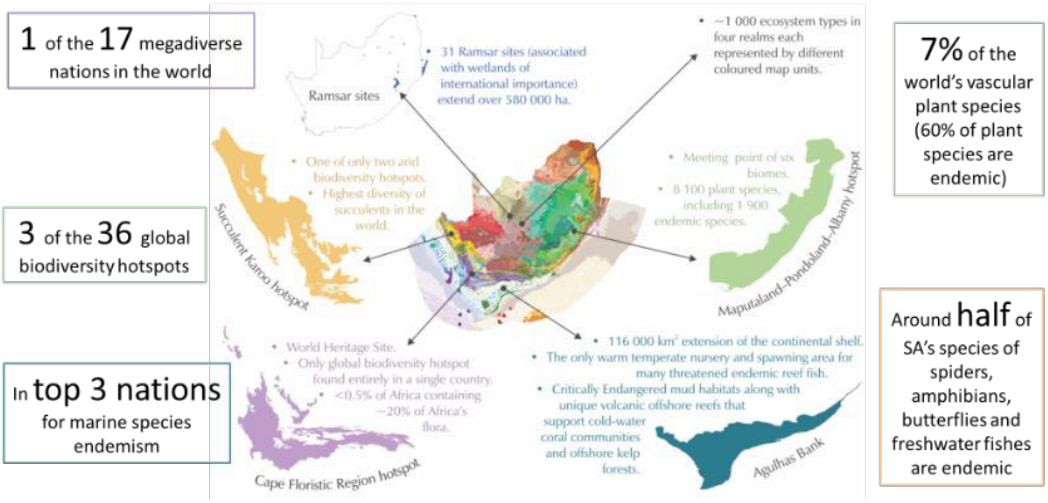


Figure 1: South Africa has exceptional biodiversity that is globally recognised. Here ecosystem diversity is highlighted through several examples across the realms. National Biodiversity Assessment 2025. https://nba.sanbi.org.za/content/context/biodivprof.html[1]

[1] As of 2026, RAMSAR sites have increased to 32 sites.

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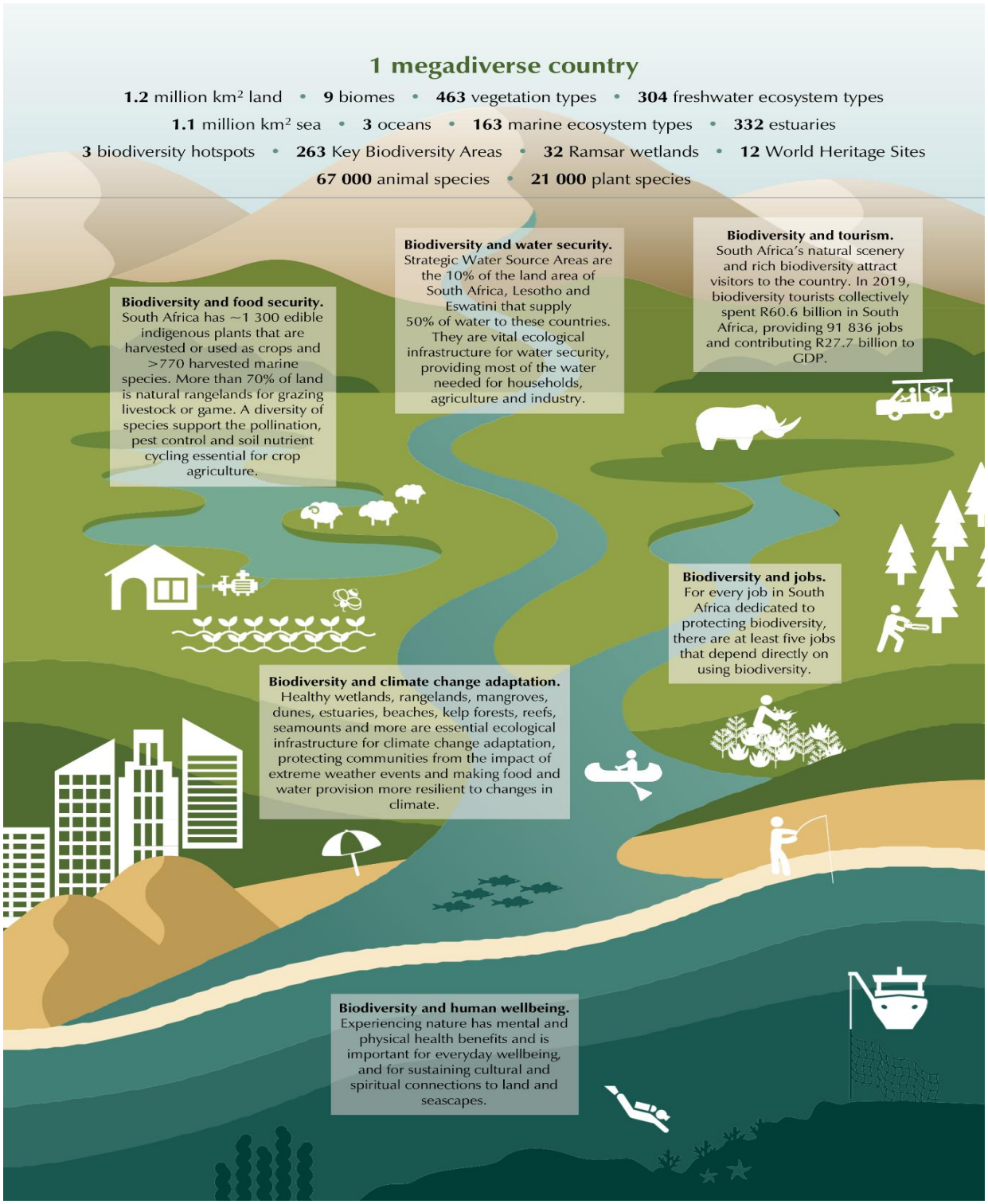


Figure 2: South Africa's biodiversity provides numerous benefits to its people. National Biodiversity Assessment 2025. https://nba.sanbi.org.za/content/context/importance.html

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The National Biodiversity Assessment (NBA) (SANBI, 2025) is the primary tool for monitoring and reporting on the state of biodiversity in South Africa. It represents a collaborative effort to synthesise the best available science on South Africa's biodiversity to inform policy, support decision-making across multiple sectors, and contribute to national development priorities. In 2025, the fourth iteration of the NBA was released, building on more than two decades of respected biodiversity assessment. It is the first NBA to be delivered using a digital platform, marking a transition towards the NBA as a 'living' assessment that can be updated more frequently to reflect the most current data available. The NBA 2025 revealed that almost half (48%) of South Africa's ecosystem types are threatened, with estuaries, rivers and wetlands being the most threatened and least protected (Figure 4). While the majority of species remain in a 'Least Concern' category, extinction risks are rising, with 16% of plants and 10% of animals now threatened. Freshwater (66%) and cartilaginous fishes (42%) face the highest risk. Additionally, new genetic indicators show that 58% of the assessed populations have fallen below the effective size required for long-term genetic health and adaptive potential.

In 2025, South Africa's protected and conserved areas (Figure 3) encompassed approximately 17% of its terrestrial area and 15% of its marine territory. While terrestrial and marine ecosystems are well-represented, rivers and wetlands remain the least protected ecosystems in the country (Figure 4). Consequently, while South Africa's protected area network successfully safeguards species, freshwater fishes remain poorly protected.

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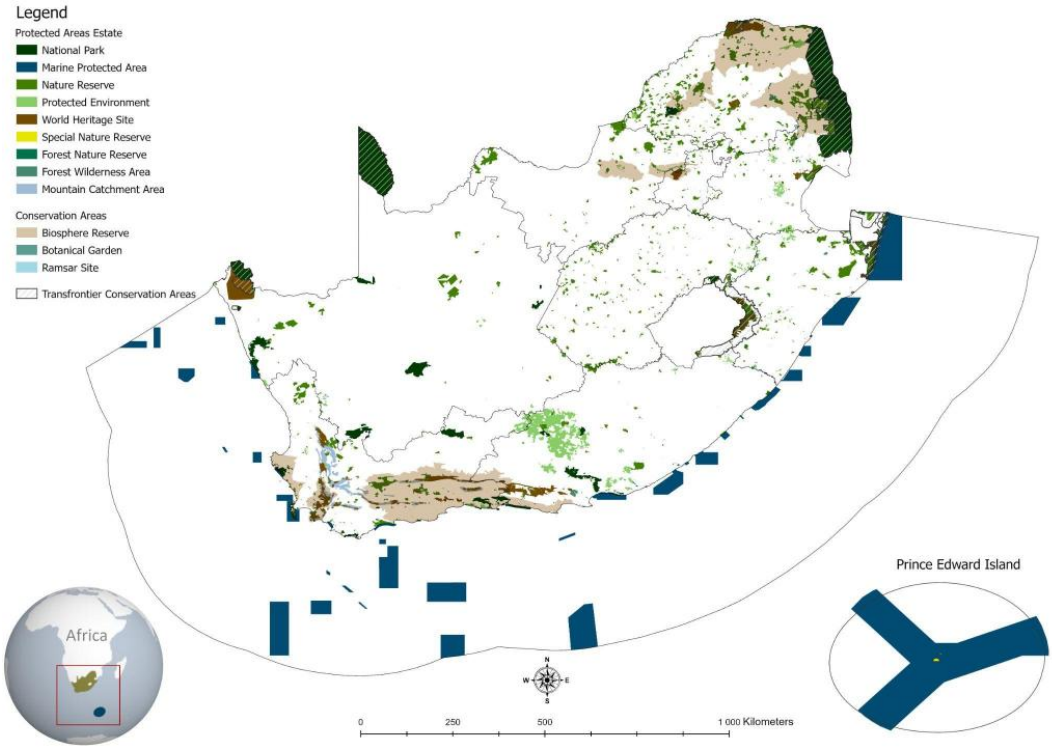


Figure 3. South Africa's network of protected and conserved areas across its mainland and sub-Antarctic territories .

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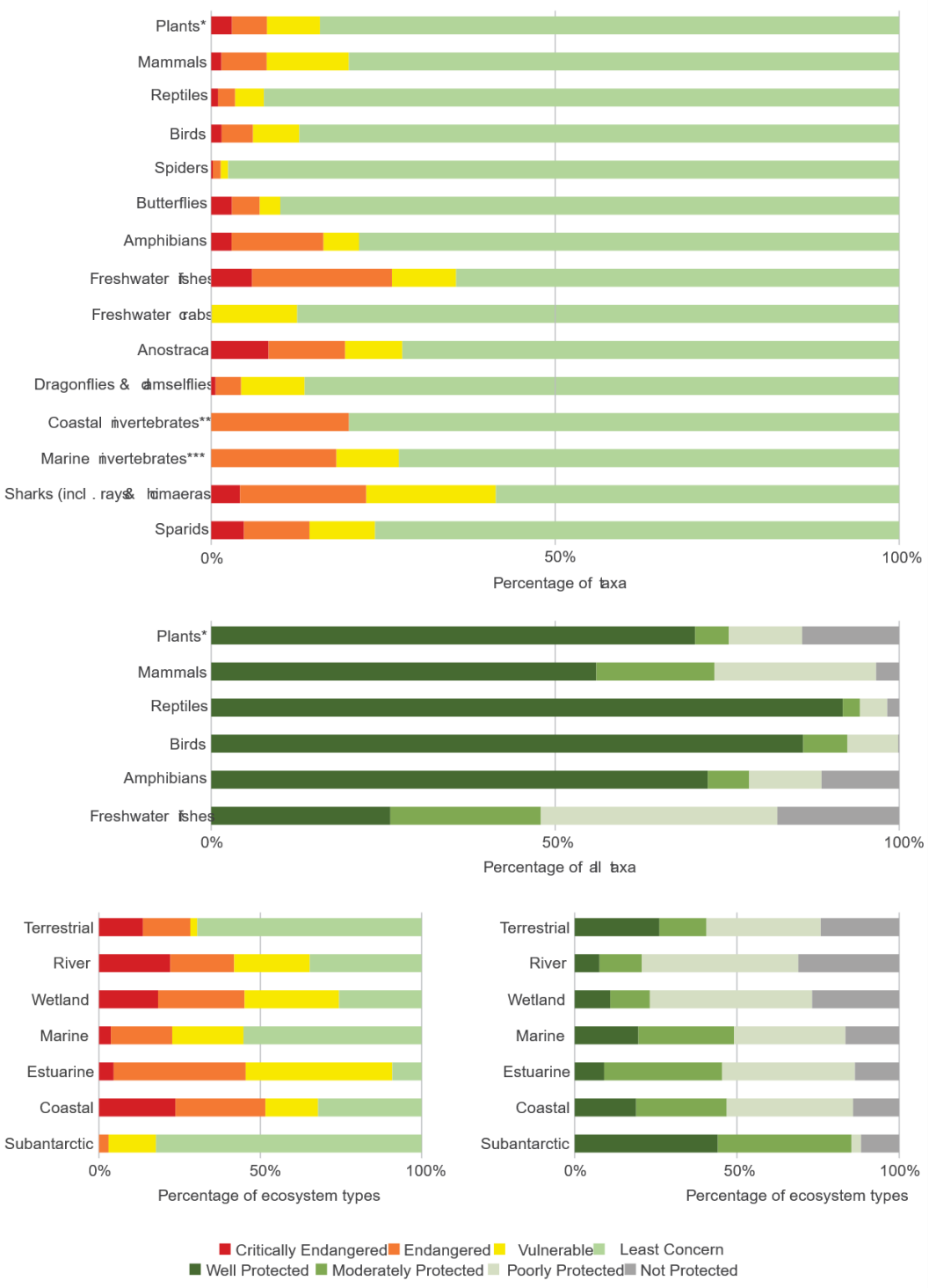


*Figure 4. The four national headline indicators of the National Biodiversity Assessment are threat status and protection level for ecosystems and species. *sample of 900 plant taxa; **sample of sandy beach invertebrate species; ***sample of economically important marine invertebrate species. National Biodiversity Assessment 2025. https://nba.sanbi.org.za/content/integrated-findings/intf_headline.html*

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Despite South Africa's exceptional wealth of biodiversity, its ecosystems and species are facing severe and compounding pressures across the terrestrial, freshwater, estuarine and marine realms. Loss of area to agriculture, urban development and mining, along with invasive species and climate change are the most severe pressures in the terrestrial realm. Freshwater ecosystems are under pressure from natural system modifications, invasive species and pollution. In the marine, coastal and estuarine realms, the major pressures include biological resource use, natural system modifications and pollution (Figure 5). Habitat loss and invasive species are key pressures across many species' groups, with pressure on marine species from biological resource use. The NBA emphasises that pressures are accelerating and are impacting people directly. These cumulative pressures threaten the long-term sustainability of ecosystem services, reducing ecological resilience and severely impacting the benefits that people derive from biodiversity for their well-being and livelihoods.

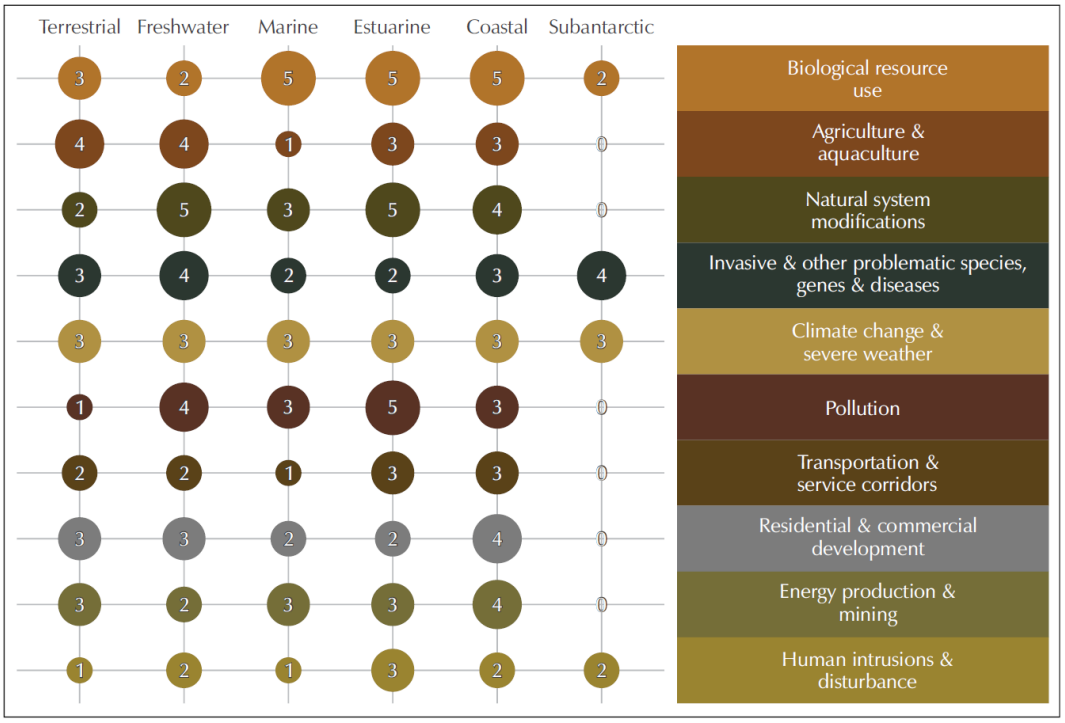


Figure 5. Key pressures on biodiversity in each realm, informed by the Red List of Threatened Species and the Red List of Ecosystems assessments. The size of the bubbles indicates the relative importance (on a scale of 0–5) of each pressure class. National Biodiversity Assessment 2025. https://nba.sanbi.org.za/content/integrated-findings/intf_pressures-condition.html

Table A below provides a list of the key negative and positive trends and drivers of change in biodiversity and ecosystems in South Africa. The order in which the key trends and drivers are listed does not reflect any prioritisation of importance or impact.

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Table 1. List of key negative (N1-10) and positive (P1-5) trends and drivers of change

N1	**Habitat Loss from Land Conversion -** primary pressure on both terrestrial and freshwater ecosystems - the clearing of land for croplands, grazing, plantation forestry, settlements, and mining, combined with overgrazing that leads to soil erosion and the loss of woody and herbaceous vegetation cover, has been especially severe in terrestrial areas, with knock-on effects that degrade rivers and wetlands downstream.
N2	**Modification of Natural Systems** - particularly changes to water regimes are a significant source of pressure across ecosystems. Infrastructure such as dams, extensive water abstraction, and modified river flows disrupt sediment delivery to estuaries and coastal areas, while invasive plants and climate-driven conditions are changing natural fire patterns. These combined impacts place substantial stress on freshwater, estuarine, coastal, and some terrestrial systems.
N3	**Pollution of Aquatic Systems** - Pollution from sources such as acid mine drainage, industrial and urban effluent, agricultural return flows, and stormwater runoff significantly degrades aquatic environments. When these pollutants interact with altered water flows, they become a major driver of degradation in rivers, wetlands, estuaries, and coastal ecosystems.
N4	**Invasive Alien Species-** Invasive alien species exert pressure across all ecological realms. Woody invasive plants spread through catchments, wetlands, and mountain areas, while predatory non-native fish disrupt river ecosystems. These invasives also increase fuel loads, intensifying fire events, and have particularly damaging effects on native plants and amphibians.
N5	**Unsustainable Biological Resource Use -** Excessive and unsustainable use of biological resources places a heavy strain on ecosystems. This includes overfishing in marine, estuarine, and coastal areas, illegal harvesting and wildlife trade, and the overutilisation of rangelands. Such overexploitation is the primary pressure affecting marine and coastal environments.
N6	**Mining and Energy Production -** Mining and energy activities lead to direct destruction of natural habitats, with particularly severe impacts along the Namaqualand coast and on vulnerable reptiles, plants, and amphibians. These pressures significantly increase the extinction risk for multiple species groups.
N7	**Climate Change -** Climate change intensifies the effects of other pressures on biodiversity. Prolonged droughts in the arid western regions are contributing to species declines, while extreme weather events are affecting coastal and estuarine areas. Its interaction with invasive species, altered fire regimes, and habitat degradation makes it a rapidly escalating, cross-cutting driver of ecosystem stress.
P1	**Landscape Restoration & Ecological Infrastructure -** community-led restoration projects are rebuilding habitat resilience and biodiversity.
P2	Increase in **private and communal protected areas and conservation areas**

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P3	**Restoration of Rangeland -** Initiatives led by Conservation South Africa promote rotational grazing, native vegetation recovery, and community governance supporting biodiversity and livelihoods.
P4	**Policy, Financing and Institutional Support -** Investment in biodiversity credits and nature-based finance are emerging mechanisms to incentivize landscape management.
P5	Improved **enabling environment** for biodiversity management

The NBA provides key messages that are directly relevant to the NBSAP. A central recommendation is the adoption of the whole-of-government and whole-of-society approach advocated by the CBD, moving beyond the environmental sector to ensure biodiversity is mainstreamed into all development planning and decision-making. The NBA highlights that investment in consistent monitoring is crucial, as without it, there is currently no way to accurately track if conservation targets are being met. Given that the real purchasing power of biodiversity expenditure is declining, innovative finance solutions and resources are needed to bridge the gap. The NBA identifies seven broad actions that are needed, including biodiversity inclusive spatial planning, policy development or refinement, compliance and enforcement, the implementation of management plans, technological innovation, data collection and monitoring, and innovative financing.

The biennial status of South African marine fishery resources report, produced by DFFE, complements and is a key source of information for the marine component of the NBA by providing the most up-to-date analysis of South Africa's exploited marine fishery resources. The status report provides a snapshot of the stock status of key resources that underpin commercial and small-scale fishing sectors and the fishing pressure on these resources. The relevance of marine resource monitoring to the NBSAP is underpinned by the fact that sustainable use serves as a core pillar of the White Paper on Conservation and Sustainable Use. Demonstrating this policy commitment, the regulatory and scientific scope tracking of these resources has grown substantially. Since its inception, the number of species evaluated by the status of South African marine fishery resources report has officially tripled, expanding from a baseline of 22 species in 2008 to 65 species in 2025. According to the 2025 report, depleted or heavily depleted stocks account for 31% of the monitored resources, raising significant conservation concerns (Figure 6).. The status of the remaining stocks was found to be either optimal, abundant, or unknown. The report also provides information on the impact of policy interventions on gear limitations, changes in total allowable effort and catch, the application of bycatch reduction methodologies, and the implementation of area-based and temporal fisheries closures to ensure that target and non-target species are managed effectively.

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	2008	2010	2012	2014	2016	2020	2023	2025
Stocks not of concern	17 (77%)	18 (75%)	25 (57%)	31 (65%)	36 (67%)	36 (60%)	48 (67%)	45 (69%)
Stocks of concern	5 (23%)	6 25%)	19 (43%)	17 (35%)	18 (33%)	24 (40%)	24 (33%)	20 (31%)
Number of stocks assessed per year.	22	24	44	48	54	60	72	65

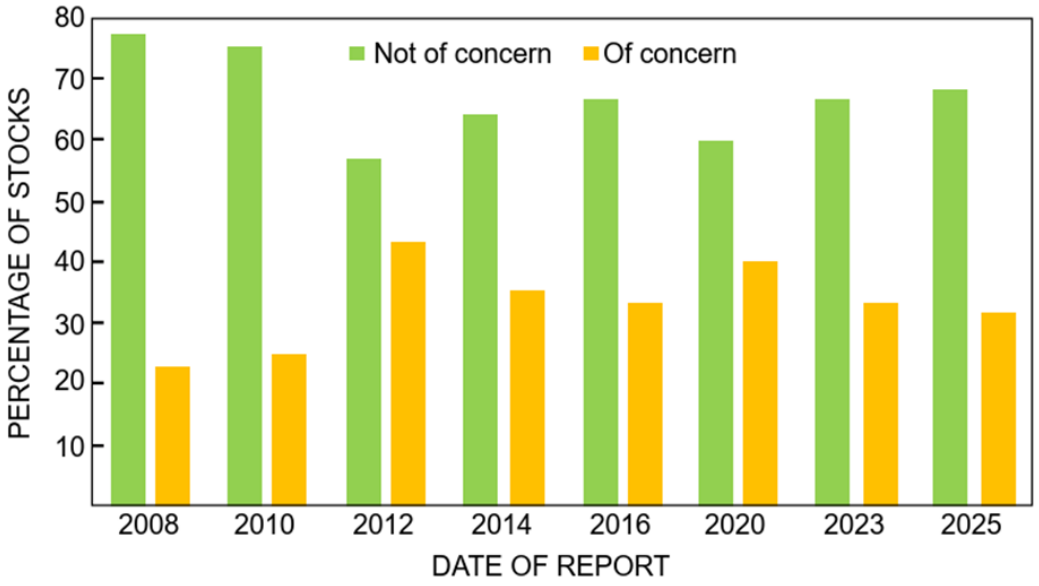


Figure 6: Number and percentage of marine stocks considered of concern or not (DFFE 2025).

2.2 Governance of South Africa's biodiversity

Governance of biodiversity in South Africa is a tiered system involving international commitments, national legislation and policy, and the organisations that are mandated to implement these, supported by the whole of government and the whole of society.

2.2.1 International frameworks and strategies

South Africa implements its biodiversity mandate within a broader global and regional context, ensuring that national priorities are well aligned with international obligations, including but not limited to the frameworks listed in table 2.

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Table 2: International frameworks that support conservation and sustainable use of South Africa's Biodiversity

International framework	Purpose	Relevance to the NBSAP
Convention on Biological Diversity (CBD) *Ratified 1996*	Global treaty to achieve the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the utilisation of genetic resources.	● Requires parties to develop an NBSAP as the primary national instrument for implementing the CBD. ● Provides the overarching global biodiversity framework guiding the NBSAP and implementation of biodiversity targets.
Kunming-Montreal Global Biodiversity Framework (KMGBF) *Adopted by parties to CBD in 2022*	Global framework to achieve a 2050 vision where biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.	● Provides a set of 4 global goals and 23 action targets, along with headline indicators for reporting. ● Requires countries to update their NBSAPs to align with new global goals and targets. ● Promotes a shift toward a whole-of-government and whole-of-society approach.
Sustainable Development Goals (SDGs) *Adopted by UN member states in 2015*	A set of 17 goals to end poverty, protect the planet, and ensure peace and prosperity for all.	● Depends on healthy biodiversity as a fundamental foundation for achieving global sustainable development. ● Overlaps with many NBSAP targets, including ecosystems, climate resilience and sustainable resource use. ● Uses similar indicators and reporting systems to track biodiversity's contribution to development.
United Nations Framework Convention on Climate Change (UNFCCC) *Ratified 1997*	Global framework to combat dangerous human interference with the climate system.	● Biodiversity and climate change are deeply interconnected issues that cannot be addressed in isolation. ● Emphasises Ecosystem-based Adaptation, using the management of ecological infrastructure to build climate resilience. ● Aligning biodiversity and climate commitments streamlines implementation and reporting.
Paris Agreement *Adopted 2016*	Global Goal on Adaptation to enhance adaptive capacity, strengthen resilience and reduce vulnerability.	● Includes a dedicated target on the resilience of terrestrial, marine, coastal and freshwater ecosystems and biodiversity. ● Promotes nature-based solutions to address the effects of climate change.
United Nations Convention to Combat Desertification (UNCCD) *Ratified 1997*	A legally binding framework for addressing land degradation and the impacts of drought, with a current strategic objective to achieve Land Degradation Neutrality.	● Provides the framework for land restoration, recognising that healthy ecosystems are necessary to maintain biodiversity and productivity. ● South Africa's second National Action Programme (2018-2030) can be directly aligned with NBSAP targets on ecosystem restoration to streamline implementation and reporting.

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International framework	Purpose	Relevance to the NBSAP
Nagoya Protocol *Ratified 2013*	A supplementary agreement to the CBD focussing on access to genetic resources and the fair and equitable sharing of benefits arising from their use.	● Implemented in South Africa through Bioprospecting, Access and Benefit Sharing (BABS) Regulations. ● NBSAP reinforces objectives related to equitable biodiversity use, protection of indigenous and traditional knowledge, community participation, governance systems and the flow of benefits.
Cartagena Protocol on Biosafety *Acceded 2003*	A supplementary agreement to the CBD that governs the safe handling, transport and use of Living Modified Organisms (LMOs) resulting from modern biotechnology.	● Genetically Modified Organisms Act (Act 15 of 1997) regulates permitting and registration. ● National Environmental Management: Biodiversity Act (Act 10 of 2004) monitors environmental impacts. ● Directly links to NBSAP targets on biosafety monitoring and risk assessment to minimise risks from gene flow to indigenous biodiversity.
Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat *Ratified 1975*	Framework for national action and international cooperation for the conservation of wetlands	● South Africa has 32 designated Ramsar sites of international importance in 2025. ● Estuaries, rivers and wetlands are South Africa's most threatened and least protected ecosystem types. ● Relates to NBSAP priorities on ecosystem restoration, climate change adaptation and protection of wetland species. ● Under Resolution XV.15, South Africa commits to the conservation and restoration of freshwater ecosystems for the benefit of people and nature.
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) *Ratified 1975*	Global agreement to ensure that international trade in wild animals and plants does not threaten their survival.	● Covers South Africa's iconic, high-value species (e.g., rhinos, elephants, cycads) and succulent plants targeted by illegal poaching. ● Reinforces monitoring, permitting and compliance systems to protect threatened species and regulate legal trade. ● NBSAP supports through species conservation targets, sustainable use and enforcement against illegal trade.
Convention on the Conservation of Migratory Species of Wild Animals (CMS) *Acceded 1991*	Global agreement that focuses on the conservation of migratory species and their habitats across national boundaries.	● Informs NBSAP species recovery plans for animals that move naturally across borders, like vultures and sharks. ● Strengthens South Africa's approach to safeguarding migratory species by maintaining a strong focus on ecological connectivity. ● Integrates national commitments under the related Agreement on the Conservation of African-Eurasian Migratory Waterbirds.
International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) *Ratified 2024*	A global treaty that aims for the conservation and sustainable use of plant genetic resources for food and agriculture, and fair and equitable benefit sharing arising from their use, in support of sustainable agriculture and food security.	● Complements the NBSAP through conservation and sustainable use of crop wild relatives and indigenous genetic resources relevant for food security. ● Includes provisions ensuring farmers' rights, benefit sharing and protection of indigenous and traditional knowledge.

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International framework	Purpose	Relevance to the NBSAP
Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES) *Member 2012*	An independent intergovernmental body to strengthen the interface between science and policy for biodiversity and ecosystem services.	● Science-based evidence is central to achieving the goals and targets of the KMGBF and NBSAP. ● Assists by providing scientifically credible data, assessments, models and policy tools needed to implement, monitor, and report on national biodiversity commitments. ● Enhances capacity-building and engagement with indigenous and local knowledge.
Group of Like-Minded Megadiverse Countries *Founding member 2002*	A mechanism for consultation and cooperation to promote shared interests and priorities related to the preservation and sustainable use of biological diversity.	● Includes Brazil, China, Colombia, Costa Rica, Ecuador, India, Indonesia, Kenya, Mexico, Peru, Venezuela, Bolivia, Democratic Republic of the Congo, Ethiopia, Guatemala, Madagascar, Malaysia, Philippines, South Africa and Iran. ● These countries hold roughly 60–70% of the world's biodiversity and associated traditional knowledge.
Chemicals and Waste Conventions Basel Convention (*Acceded 1994);* Rotterdam Convention (*Acceded 2002*); Stockholm Convention (*Ratified 2002*); Minamata Convention (*Ratified 2019*)	International instruments that address chemical and waste pollution.	● Manage hazardous chemicals, persistent pollutants and mercury ● Inform national chemical-management and pollution-reduction actions. ● Support NBSAP priorities on ecosystem health, pollution control and implementation of KMGBF targets related to contaminants.
African Union Biodiversity Strategy and Action Plan (2023–2030) (AU, 2023)	A continental strategy to coordinate the implementation of the KMGBF across Africa's vast natural heritage, directly related to the African Union's Agenda 2063, a 50-year strategic vision for a prosperous and integrated Africa.	● Aligns African priorities with global commitments ● Addresses region-specific challenges such as land degradation, climate impacts and community-based natural resource management. ● South Africa's targets and activities should contribute to the broader continental efforts to conserve Africa's biodiversity, promote sustainable use, and ensure equitable benefit sharing.
SADC Biodiversity Strategy and Action Plan (SADC, 2025)	A subregional strategy to coordinate biodiversity conservation and management across member states, particularly around transboundary issues such as invasive species, climate change and the sustainable use of shared resources.	● Complements the NBSAP by supporting cross-border actions towards species conservation and ecological connectivity. ● Promotes regional data sharing, harmonised monitoring, and joint restoration initiatives. ● South Africa hosts the Technical and Scientific Cooperation Centre, which supports nine countries in the region with the technical and scientific support for their NBSAPs.

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International framework	Purpose	Relevance to the NBSAP
International Human Rights Law UN Declaration on the Rights of Indigenous Peoples (UNDRIP) (*Adopted by UN 2007*) International Covenant on Civil and Political Rights (Ratified 1998); International Covenant on Economic, Social and Cultural Rights (ICESCR)(*Ratified 2015*)	Foundational framework that establishes the universal framework for human rights. South Africa ratified ICESCR and has observer status under the UNDRIP.	● The right to a clean, healthy and sustainable environment was adoption by the United Nations in 2022. ● Recognises that fundamental rights (to life, health, food, water, and culture) depend on healthy ecosystems. ● Ensures NBSAP implementation follows a human rights-based approach, aligning with Section C of the KMGBF. ● NBSAP implementation must be consistent with human rights through meaningful participation, rights of indigenous peoples and local communities, safeguarding traditional knowledge, and requiring free, prior and informed consent (FPIC).
SADC Wildlife-Based Economy Strategy Framework, 2024	Serves as a beacon guiding SADC Member States towards a future where the sustainable use of marine and terrestrial wildlife becomes a catalyst for transformative growth and development. The vision of the strategy is "An abundant SADC wildlife-based economy is actively contributing to transformative economic growth, employment creation and generating equitable opportunities, that enhances the sustainable quality of life for all within the region".	● Complementing NBSAP by supporting sustainable use of wildlife resources. ● ensures that all people of all races, creeds, religions, gender and socio-economic levels, especially vulnerable groups such as women, people with disabilities, youth, etc. are not marginalised or excluded, and are treated fairly and equally in growing the wildlife-based economy, aligns with KMGBF ● Ensure local Communities, MSMEs and Entrepreneurs are supported (i.e. skills, knowledge, finance) to participate and flourish in the wildlife-based economy and associated value chains, aligns with KMGBF

2.2.2 National legal context

South Africa possesses a well-developed, world-class policy and legislative framework that provides a robust foundation for implementing the Kunming-Montreal Global Biodiversity Framework (KMGBF) and updating the National Biodiversity Strategy and Action Plan (NBSAP). A recent Policy and Institutional Review (PIR) further underscores the country's institutional readiness, highlighting key strengths and strategic focus areas for executing these biodiversity mandates. Table 3 below summarises the principal national legal and policy instruments that give effect to South Africa's biodiversity objectives and support alignment with the KMGBF.

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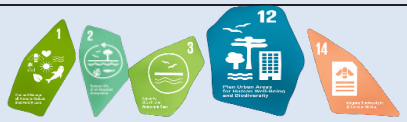
Table 3: A summary of the principal national legal and policy instruments that give effect to South Africa's biodiversity objectives and support alignment with the KMGBF.

Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
The Constitution of the Republic of South Africa (1996)	Enshrined in Section 24 of the Constitution is the environmental right, which states that everyone has the right to an environment that is not harmful to their health or well-being, and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.	
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)	Application of principles/tools/governance framework for biodiversity management such as duty of care, pollution prevention and public participation	

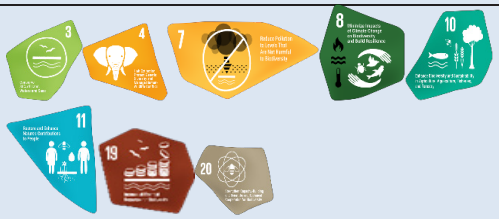
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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA)	Provide for the management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources and for the establishment of SANBI	
Threatened or Protected Species Regulations, 2007 as amended (TOPS)	Govern the permit system and restrictions for activities involving listed species. These regulations cover hunting, breeding, trading, and transporting endangered or vulnerable species, with updated 2023 provisions focusing on animal welfare, sustainable use, and stricter control over captive breeding and commercial exhibition	
CITES Regulations, 2010	Govern the import, export, and re-export of listed endangered species, requiring permits issued by the national Department of Forestry, Fisheries and the Environment (DFFE) or provincial authorities	
Access and Benefit Sharing (ABS) Regulations, 2008	govern the use of indigenous biological resources and associated traditional knowledge, requiring prior informed consent (PIC) and mutually agreed terms (MAT) for access	
Alien invasive species Regulations, 2014	Govern the regulation, control, and management of listed alien and invasive species in South Africa.	
National Biodiversity Framework (2019-2024)	Statutory instrument required under the Biodiversity Act to domesticate the NBSAP into national biodiversity management. It provides a short-to-medium-term tool that coordinates and aligns the efforts of all organizations and spheres of government involved in biodiversity conservation and management.	

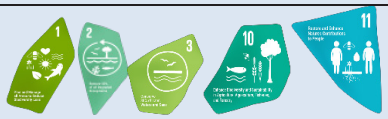
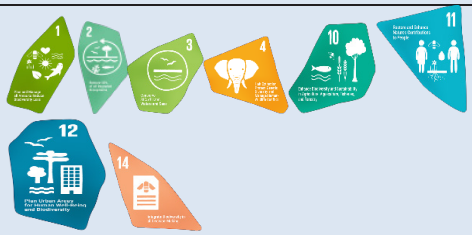
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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
National Environmental Management Protected Areas Act, 2003 (Act 57 of 2003) (NEMPAA)	Provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas	
National Protected Areas Expansion Strategy, 2018	Present a 20year strategy for the expansion of the protected areas in South Africa	
World Heritage Convention Act, 1999 (Act 49 of 1999)	Provides for the recognition and establishment of natural and cultural World Heritage Sites; the establishment of Management Authorities and the granting of additional powers to existing organs of state; the powers and duties of such Authorities, especially those safeguarding the integrity of World Heritage Sites; where appropriate, the establishment of iSimangaliso Wetland Authory and integrated management plans for World Heritage Sites;	
4. National Forests Act, 1998 (Act 84 of 1998)	The Act a) Promote the sustainable management and development of forests for the benefit of all: b) create the conditions necessary to restructure forestry in State forests; c) provide special measures for the protection of certain forests and trees: d) promote the sustainable use of forests for environmental, economic, educational recreational, cultural, health and spiritual purposes: e) promote community forestry; f) promote greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination.	

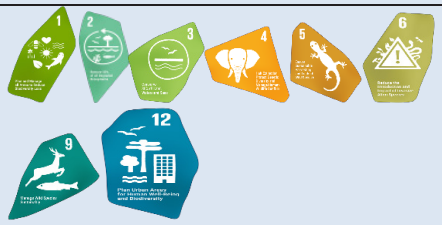
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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
NEMA: Integrated Coastal Management Act, 2004 (Act 24 of 2008)	Establish a system of integrated coastal and estuarine management in the Republic, including norms, standards and policies, in order to promote the conservation of the coastal environment, and maintain the natural attributes of coastal landscapes and seascapes, and to ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable; to define rights and duties in relation to coastal areas; to determine the responsibilities of organs of state in relation to coastal areas; to prohibit incineration at sea; to control dumping at sea, pollution in the coastal zone, inappropriate development of the coastal environment and other adverse effects on the coastal environment; to give effect to South Africa's international obligations in relation to coastal matters	
Marine Living Resources Act, 1998 (Act 18 of 1998)	Governs the conservation and sustainable use of marine ecosystems and resources. It ensures fair, equitable access to fishing and marine resources, regulating commercial, subsistence, and recreational fishing while protecting marine biodiversity within South African waters	
Marine Pollution (Prevention of Pollution from Ships) Amendment Act, 2024 (Act 36 of 2024)	Give effect to Annex IV of the International Convention for the Prevention of Pollution from Ships, and to incorporate the 1997 Protocol in order to give effect to Annex VI of the Convention;	
Dumping at Sea Act, 2008 (Act 24 of 2008)	prohibits the unauthorized disposal of waste or other materials into the sea from vessels, aircraft, or platforms. I	
National Heritage Resources Act, 1999 (Act 25 of 1999)	Seeks to ensure that our national heritage is conserved and protected for future generations	
Conservation of Agricultural Resources, 1983 (Act 43 of 1983)	Protect natural agricultural resources by conserving soil, water sources, and vegetation, while combating weeds and invader plants. It mandates land users to prevent erosion, manage grazing capacity, and remove specific invasive plants.	

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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
Animal Protection Act, 1962 (Act 71 of 1962)	Governs animal welfare, aimed at preventing cruelty by prohibiting abuse, neglect, and unnecessary suffering. It applies to domestic animals, wild animals in captivity, and reptiles under human control, allowing for fines, imprisonment, and banning abusers from owning animal	
Animal Improvement Act, 1998 (Act 62 of 1998)	Governs the breeding, identification, and utilization of animals to improve production.	
Genetically modified organisms Act, 1997 (Act 15 of 1997)	Regulates all activities related to Genetically Modified Organisms (GMOs), including development, production, use, and environmental release. Administered by the Department of Agriculture, it aims to limit harm to human, animal, and environmental health through mandatory risk assessments, permit requirements, and oversight by an Executive Council and Advisory Committee	
Preservation and Development of Agricultural Land Act, 2024 (Act 39 of 2024) (PDALA)	Provide principles for the management of agricultural land; to provide for agricultural land evaluation and classification; to provide for the preparation, purpose and content of provincial agricultural sector plans; to provide for the declaration of protected agricultural areas; to provide for the general objectives of agro-ecosystem management, agro-ecosystem authorisations, the listing and delisting of activities or areas within agro-ecosystems and the identification of competent authorities;	
Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947)	Regulates the manufacture, sale, importation, and use of agricultural inputs. It ensures product safety, quality, and efficacy to protect human health, animal welfare, and the environment	
Spatial Planning and Land Use Management Act, 2013 (Act 16 of 20213)	Provides a framework for spatial planning and land use management	
National Land Use Classification and Planning Guidelines	standardize how land is classified, zoned, and managed across municipalities to ensure sustainable development	

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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
Climate Change Act, 2024 (Act 22 of 2024)	Enable the development of an effective climate change response and a long-term, just transition to a low-carbon and climate-resilient economy and society for South Africa in the context of sustainable development.	
National Environmental Management: Waste Act, 2008 (Act 59 of 2008)(NEMWA)	reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement;	
National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEMAQA)	protect the environment and human health by controlling air pollution. It mandates the government to set ambient air quality standards, manage emissions, and monitor pollutants	
NATIONAL STRATEGIES THAT HAVE IMPLICATIONS FOR BIODIVERSITY		
National Strategy for Plant Conservation, 2020	enhance measures to ensure the protection of plants	
National Invasive Species and Action Plan	Address the escalating threats posed by invasive alien plants (IAPs) to biodiversity and ecosystems	
National Biodiversity Economy Strategy 2018 revised 2026	encompasses businesses and economic activities that either directly depend on biodiversity for their core business or that contribute to the conservation of biodiversity through their activities.	

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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
National Climate Change Adaptation Strategy, 2019	cornerstone for climate change adaptation in the country and to reflect a unified, coherent, cross-sectoral, economy-wide approach to climate change adaptation.	
Nationally Determined Contribution 2025	NDC reflect several trends in the country with respect to development and climate change reaffirming South Africa's commitment to the multi-lateral rules-based regime under the UNFCCC and its Paris Agreement, the second NDC demonstrates our fair and ambitious contribution to collective action in the fight against climate change.	
National Strategy for Ecosystem Based Approaches, 2025	Ten-year strategy and plan to implement ecosystem-based adaptation measures in South Africa, aimed at helping climate-vulnerable communities and key adaptation related sectors adapt to climate change through biodiversity conservation action in fulfilment of the South African National Climate Change Adaptation Strategy	
National Action Plan for land degradation, drought and desertification, 2018	Provide strategic framework designed to combat desertification, land degradation, and drought (DLDD)	
Land Degradation Neutrality Targets date, 2025	Refine existing LDN commitments and identify new LDN targets that are geographically specific and feasible.	
Norms and Standards for Biodiversity Management Plans for species, 2008	To provide a national approach and minimum standards for the development of biodiversity management plan for species	
Norms and Standards for Biodiversity Management Plans for ecosystems, 2014	To guide the development of biodiversity management plan for ecosystems, providing a consistent approach across the country while being sufficiently flexible to accommodate the variability of the ecosystems and their management requirements	

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Act/Regulation/ Policy/Strategy	Scope	Alignment with GBF Target
Draft Norms and Standards for other effective area-based conservation measures (OECMs), 2025	Set clear national criteria for OECM recognition in the marine, coastal and terrestrial land and seascapes, establish transparent assessment procedures and enable consistent reporting and monitoring	
White paper on Conservation and Sustainable Use of South Africa's Biodiversity, 2023	Conserve and manage South Africa's biodiversity, and ensure healthy ecosystems, ecological integrity and connectivity, with transformative socio-economic benefits to society for current and future generations through ecologically sustainable, and socially equitable use of what people values from nature.	
Strategy on Buffer Zones for National Parks, 2012	Establishes protected areas surrounding national parks to mitigate edge effects, reduce developmental conflict, and enhance ecological connectivity	
National Biodiversity Research & Evidence Strategy (NBRES) 2015-2025	Describes how decision-making and policy formulation in the biodiversity sector can be most effectively supported with robust evidence. As well as supporting the NBSAP strategic objectives, evidence is also needed to support a number of other sectoral priorities such as improving efficiencies in government spending and delivery, managing environmental risks, adapting to climate change and strengthening links across Africa	

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2.2.3 Policies and strategies

South Africa's biodiversity priorities are further guided by a set of national policies and strategies that translate the country's legal mandates into specific targets and actions to implement the conservation and management of biodiversity.

Primary among these is the **White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity** (DFFE, 2023) (hereafter referred to as the White Paper), which serves as the comprehensive government policy position for the sector and articulates a vision of an inclusive, transformed society living in harmony with nature. It sets out four national goals for conservation, sustainable use, equitable benefit sharing, and transformation. The White Paper was developed in close alignment with the KMGBF, reinforcing its goals and targets within a South African context. The White Paper provides the high-level policy vision, while the NBSAP translates that vision into national priorities and strategic directions (Figure 7).

While the NBSAP translates the vision of the White Paper into a strategic, nationally coordinated plan aligned with global biodiversity commitments, it is not a legally binding implementation instrument under South African law. The **National Biodiversity Framework (NBF)** is a statutory instrument required under the Biodiversity Act to domesticate the NBSAP into national biodiversity management. It provides for short-to-medium-term initiatives for all organisations and spheres of government involved in biodiversity conservation and management. The NBF focuses on top priority actions and mid-range targets and must be reviewed at least every five years.

The **National Biodiversity Assessment (NBA)** provides the authoritative national evidence base towards these policies. It assesses and reports on the status and trends of ecosystems, species and genetic diversity across the terrestrial, freshwater, estuarine and marine realms. SANBI is responsible for producing the NBA and leads a massive collaborative effort across many stakeholders to gather, analyse and interpret biodiversity information. To ensure the data remains current and reflects emerging pressures, the NBA has been revised and updated in 2004, 2011, 2018 and 2025. The latest iteration in 2025 transitions to an online platform to allow more frequent updates as data becomes available (SANBI, 2025).

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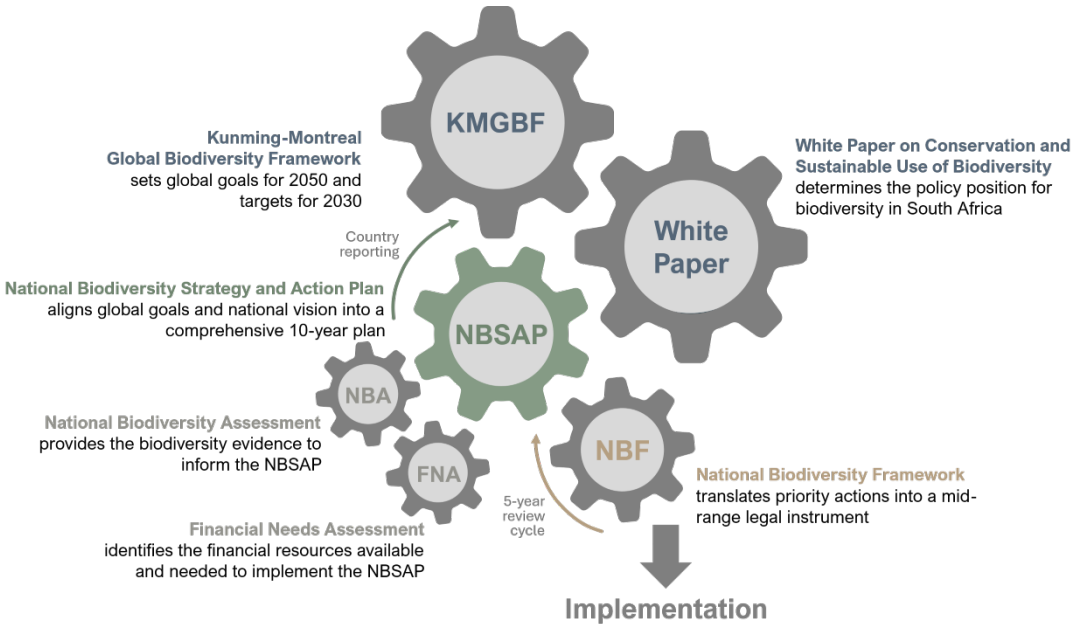


Figure 7. The relationships between the National Biodiversity Strategy and Action Plan and other global and national instruments.

South Africa also has a suite of robust policies and strategies that provide detailed implementation pathways for specific thematic areas. These instruments enable the NBSAP to coordinate and accelerate existing efforts across the biodiversity sector. For example, the **National Protected Area Expansion Strategy (NPAES)** guides the identification of spatial priorities for expanding the protected and conserved area estate (DEA, 2018), while the **National Biodiversity Economy Strategy (NBES)** outlines the national approach to the sustainable use of biodiversity (DFFE, 2024). These and other strategies addressing restoration, invasive species, climate change, and related issues are directly integrated into the NBSAP's thematic areas, ensuring that national targets are supported by actionable implementation plans. The priority now is to shift from further policy development toward effective, well-resourced implementation and enforcement.

2.2.4 Institutional context

Biodiversity is a concurrent function between national departments, provinces and local government and is mandated through the principle of cooperative governance which requires state institutions to cooperate in the management of biodiversity. This requires that state institutions cooperate across through inter and intra-governmental processes between national to national, national to province and local spheres of government.

Under South Africa's system of co-operative governance, the national, provincial and local spheres operate as distinctive yet interdependent entities. The national department and provinces share concurrent legislative competencies for functional areas such as environmental management, nature conservation, pollution control, soil conservation and regional planning, while local government is specifically responsible for integrating these biodiversity priorities into spatial development and service delivery. Each of South Africa's nine provinces has a **provincial department** for the environment, and some also have separate conservation agencies. Provinces are responsible for sub-national

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implementation of the NBSAP including through conservation management, permitting, environmental decision-making, compliance and enforcement, and pollution management. **Municipalities** are critical for mainstreaming biodiversity into spatial planning.

Co-operative governance is facilitated through several intergovernmental coordination structures. The **Minister and Members of Executive Councils Committee (MINMEC)** is a forum for co-operation between the national minister and Members of the Executive Council from provinces and representation from organised local government. The **Ministerial Technical Committee (MINTECH)** is a supportive administrative forum of Heads of Department or senior officials from within the national and provincial departments and associated public entities and is chaired by the Director-General. It includes a series of **Working Groups (WG)** that bring together technical experts around specific aspects of environmental and biodiversity management. These structures are mandated by the Intergovernmental Relations Framework Act (Act 13 of 2005) to promote coordination between national and provincial spheres. These intergovernmental structures facilitate co-operative governance and a whole-of-government approach through vertical and horizontal alignment in the development, implementation and reporting of the NBSAP.

Table 4: Government departments and their role in biodiversity

DEPARTMENT	MANDATE IN RELATION TO BIODIVERSITY	RELEVANT LEGISLATION, STRATEGY/ POLICY
Department of Water and Sanitation	Protection, management and sustainable use of freshwater ecosystems, wetlands, catchments and water resources; ensuring ecological reserve requirements and water quality management	National Water Act, 1998 (Act No. 36 of 1998); Water Services Act, 1997 (Act No. 108 of 1997); National Water Resource Strategy (NWRS-3, 2023); National Wetland Monitoring Programme
Department of Agriculture	Sustainable agriculture, agro-biodiversity conservation, regulation of agricultural inputs and activities affecting biodiversity, plant and animal health, and food systems resilience	Conservation of Agricultural Resources Act (CARA), 1983 (Act No. 43 of 1983); Animal Improvement Act (AIA), 1998 (Act No. 62 of 1998); Plant Improvement Act, 1976 (Act No. 53 of 1976); Plant Health Act, 2024 (Act No. 35 of 2024); Preservation and Development of Agricultural Land Act, 2024;
Department of Defence	Management of defence force nature reserves, marine protected areas and biodiversity stewardship within military landholdings; environmental compliance in defence activities	Defence Act, 2002 (Act No. 42 of 2002
Department of Land Reform and Rural Development	Spatial regulation of land, land reform, communal land administration and spatial planning influencing biodiversity and ecosystem integrity	Spatial Planning and Land Use Management Act (SPLUMA), 2013 (Act No. 16 of 2013); Deeds Registries Act, 1937 (Act No. 47 of 1937); Communal Land Rights frameworks and land reform policies
Department of Mineral and Petroleum Resources	Regulation of environmental impacts of mining and petroleum development; rehabilitation and environmental management in mining areas	Mineral and Petroleum Resources Development Act (MPRDA), 2002 (Act No. 28 of 2002); Mine Health and Safety Act, 1996 (Act No. 29 of 1996);
Department of Electricity and Energy	Oversight of energy development and infrastructure with implications for	Electricity Regulation Act, 2006 (Act No. 4 of 2006); Integrated Resource Plan (IRP 2019);

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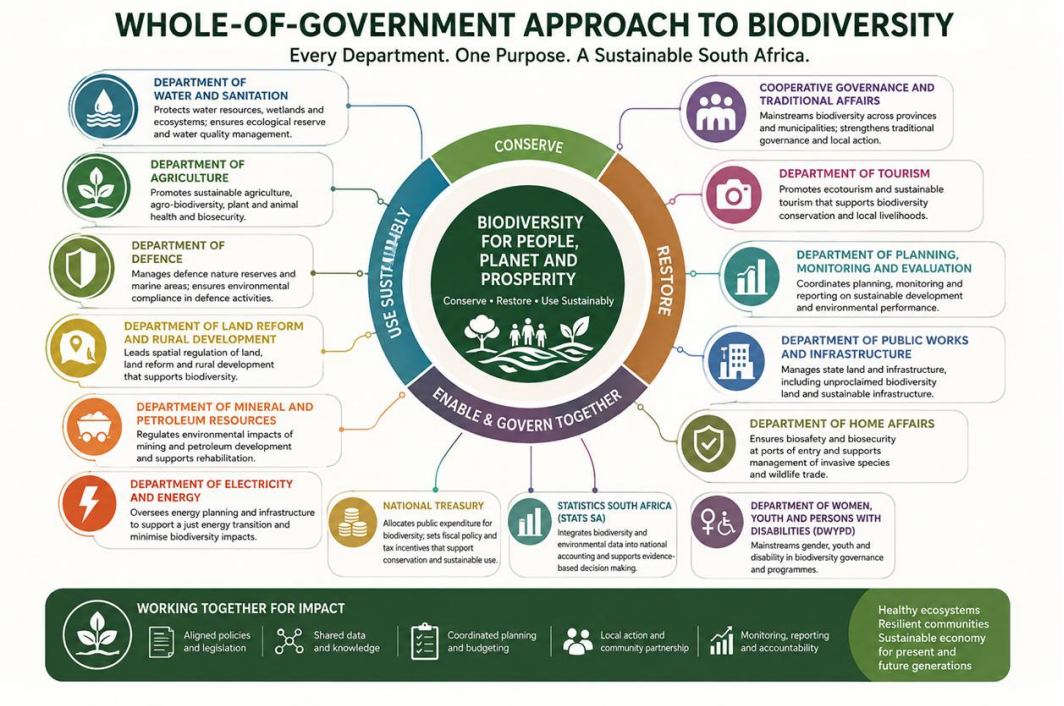
DEPARTMENT	MANDATE IN RELATION TO BIODIVERSITY	RELEVANT LEGISLATION, STRATEGY/ POLICY
	biodiversity, including renewable energy expansion and environmental sustainability considerations	National Energy Act, 2008 (Act No. 34 of 2008); Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)
Department of Cooperative Governance and Traditional Affairs	Mainstreaming biodiversity across provinces and local government; integration into municipal planning, disaster risk reduction and traditional governance systems	Municipal Systems Act, 2000 (Act No. 32 of 2000); Municipal Structures Act, 1998 (Act No. 117 of 1998); Intergovernmental Relations Framework Act, 2005 (Act No. 13 of 2005); Disaster Management Act, 2002 (Act No. 57 of 2002)
Department of Tourism	Promotion of ecotourism and sustainable tourism linked to protected areas, biodiversity economy and community livelihoods	Tourism Act, 2014 (Act No. 3 of 2014); National Tourism Sector Strategy (NTSS, revised 2022); White Paper on the Development and Promotion of Tourism in South Africa, 1996
Department of Planning, Monitoring and Evaluation	Coordination of sector-wide planning, monitoring and reporting on sustainable development and environmental performance across government	National Development Plan (NDP) 2030 (2012); Framework for Strategic Plans and Annual Performance Plans;
Department of Public Works and Infrastructure	Management of state land and infrastructure, including unproclaimed biodiversity land and public infrastructure with environmental implications	Government Immovable Asset Management Act (GIAMA), 2007 (Act No. 19 of 2007); Infrastructure Development Act, 2014 (Act No. 23 of 2014)
Department of Home Affairs	Biosafety and biosecurity management at ports of entry, including movement of people and goods relevant to invasive species control and wildlife trade regulation	Border Management Authority Act, 2020 (Act No. 2 of 2020);
National Treasury	Allocation of public expenditure for biodiversity and climate-related programmes; fiscal policy and tax incentives supporting biodiversity conservation and sustainable finance	Division of Revenue Act (annual); Income Tax Act, 1962 (Act No. 58 of 1962); Carbon Tax Act, 2019 (Act No. 15 of 2019); Green Finance Taxonomy, 2022;
Statistics South Africa (Stats SA)	Facilitates integration of biodiversity into national accounting systems and environmental-economic statistics	Statistics Act, 1999 (Act No. 6 of 1999); System of Environmental-Economic Accounting (SEEA); Natural Capital Accounting Strategy for South Africa, 2021-2030
Department of Women, Youth and Persons with Disabilities (DWYPD)	Gender, youth and disability mainstreaming in biodiversity governance, conservation and sustainable development programmes	National Gender Policy Framework (2000); White Paper on the Rights of Persons with Disabilities (2015); National Youth Policy 2020–2030

2.2.5 Whole-of-government and whole-of-society

Cooperative governance is also entrenched in mandatory public consultation on the development and implementation of policy, legislation and strategies. South Africa therefore subscribes to the whole-of-government and whole-of-society approach, which integrates the work of other sectoral departments, research institutions and a diverse range of non-state actors.

Whole of government

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There are a wide range of other sectoral departments and state entities whose primary functions intersect with, or depend upon, South Africa's biodiversity and ecological infrastructure. Working closely with these departments is important to mainstream biodiversity across the whole of government. Key departments include those related to water, agriculture, land reform, rural development, mineral resources, energy, science, planning, tourism, home affairs, defence and public works, as well as institutions responsible for social development, human rights, gender equality, youth, persons with disabilities, cooperative governance and traditional leadership. Collectively, these carry responsibilities to advance sustainable development, exercise a duty of care to the environment and promote equitable and inclusive biodiversity governance. National Treasury plays an important role in determining the expenditure framework that assigns public funding, while Statistics South Africa (Stats SA) facilitates the integration of biodiversity into national accounting.

The public sector is further bolstered by support from several public entities responsible for research and knowledge generation, such as the Council for Scientific and Industrial Research (CSIR), Agricultural Research Council (ARC), Water Research Commission (WRC), and National Research Foundation (NRF). These entities provide the scientific innovation, long-term environmental monitoring, and technical data essential for evidence-based decision-making and reporting on the status of species and ecosystems. Collectively, these actors ensure that biodiversity is treated as a cross-sectoral development asset rather than an isolated environmental concern.

Whole-of-society

South Africa has a well-established network of special interest conservation non-government organisations (NGOs) and civil society organisations (CSOs), often co-implementing programmes with

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government, that are essential for driving implementation, advocacy, and resource mobilisation to achieve national biodiversity goals. NGOs and CSOs provide vital support to the NBSAP by leading innovative conservation programmes, engaging communities, and accessing additional funding streams to fill governmental capacity gaps. The private sector is an important partner as companies recognise their impacts and dependencies on healthy ecosystems, and associated risks, making their participation in biodiversity management essential. They are able to support by mainstreaming biodiversity into their business operations and corporate responsibility strategies, growing the biodiversity economy and encouraging innovative finance solutions for biodiversity.

The White Paper recognizes traditional and local knowledge in the management of biodiversity. Indigenous, traditional and local communities are recognised as rights holders and remain the primary custodians of South Africa's natural heritage, contributing ecological knowledge and customary management systems that are fundamental to sustainable use. Empowering these communities requires clear institutional arrangements that enable meaningful and inclusive participation, including mechanisms for co-management, community-based governance, protection of indigenous and traditional knowledge, equitable benefit-sharing, and the requirement of public participation to enhance free, prior and informed consent.

Implementation is further supported by international collaborators, who have historically provided extensive donor funding and technical assistance that complement national resources. Together, these many actors help build a whole-of-society approach to biodiversity management and conservation, with a deliberate focus on gender and intergenerational equity to ensure that women and youth are empowered as partners and leaders.

2.3 Funding of biodiversity in South Africa

South Africa’s biodiversity finance remains heavily dependent on **public sector expenditure** (BIOFIN, 2025). Funding is concentrated at the national level, where the DFFE and its public entities account for 61% of historical biodiversity investment, supplemented by a further 7% from other national departments. Provincial government collectively contributes 22% of total spending, while municipalities, despite their critical role in local biodiversity management and spatial planning, represent the smallest share at just 1%. Even with this strong public sector dependency, and despite South Africa’s globally significant biodiversity, total biodiversity investment represents only a small fraction of the national economy. Biodiversity spending consistently accounts for less than 1% of the total consolidated government budget, and between 0.25% and 0.32% of national Gross Domestic Product (GDP). While nominal expenditure grew from R15.25 billion in 2016 to R20.14 billion in 2024, inflationary pressures have caused a persistent decline in real purchasing power, which fell from R14.31 billion to R12.9 billion over the same period (Figure 8). This trend indicates a steady erosion of the actual fiscal capacity required to fund essential conservation and management activities.

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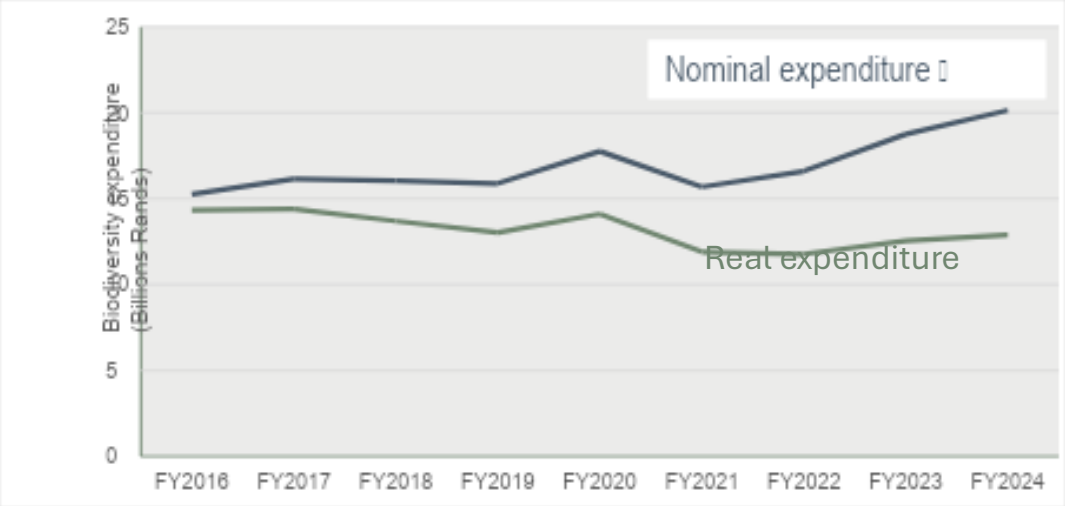


Figure 8. Nominal and real expenditure on biodiversity from 2016-2024. BIOFIN Biodiversity Expenditure Review (BIOFIN, 2025).

While the public sector remains the primary funder, **international donors, NGOs, and the private sector** provide important complementary support, although these flows are often harder to track and quantify (BIOFIN, 2025). International donors continue to play an important role in large-scale project funding, with the Global Environment Facility (GEF) providing cumulative grant allocations of USD 232.1 million across its recent cycles and the Green Climate Fund (GCF) approving major grants, including USD 40.1 million for ecosystem-based disaster risk reduction in 2025. Bilateral cooperation with several countries further strengthens national technical capacity in areas such as climate adaptation and marine conservation. The NGO sector has shown resilience, with a collective historic share of 4% of national biodiversity spending. Their nominal expenditure grew by 84% between 2016 and 2024, and even after accounting for inflation, this translates into a positive real increase of 25.5%. Private sector involvement is an area of increasing importance but remains the largest data gap in the national funding profile. Emerging green finance instruments reflect a critical shift, successfully drawing private capital into ecological infrastructure and resilience projects. To address the declining real value of biodiversity funding, a Biodiversity Finance Plan (BFP) is being developed alongside the NBSAP. Its purpose is to lay out clear finance solutions for closing the funding gap identified in the Biodiversity Expenditure Review and the Financial Needs Assessment (Figure 8; see **Means of implementation**).

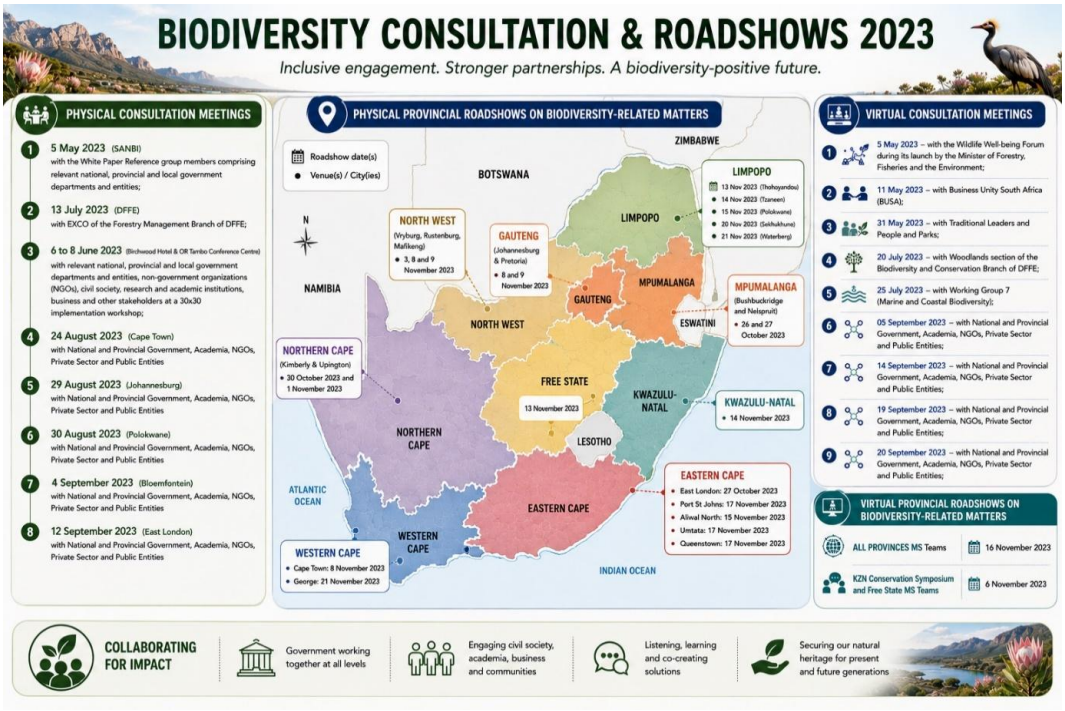
3 Process of developing the NBSAP

3.1 Process to develop national targets

The foundation for the NBSAP was laid in late 2023 when South Africa submitted its proposed National Targets to the CBD at COP16 in Cali, Colombia, as an expression of readiness to implement the KMGBF.

Stakeholder consultations were conducted through physical and virtual meetings and Provincial Roadshows on Biodiversity-related matters. The process is depicted in the graphic below:

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3.2 Early Action Support

The process of developing the third-generation NBSAP was supported by the Global Biodiversity Framework Early Action Support project, a country-led initiative funded by the Global Environment Facility. This project aimed to fast-track national readiness and early actions to implement the KMGBF. South Africa participated through a collaboration between DFFE and SANBI, focusing on four key components: reviewing NBSAP alignment, monitoring gaps, policy systems, and biodiversity finance.

The initial **review of alignment** was between South Africa's existing national targets and the new global targets of the KMGBF. It found a relatively high level of alignment across most core areas, while noting that revised national targets may need further refinement to more explicitly reflect the language and specific requirements of the KMGBF. A rapid **retrospective review** of the second NBSAP (2015–2025) was also undertaken to evaluate progress and identify implementation barriers. Of the 22 strategic outcomes, only five were clearly achieved, 14 were still in progress, and the status of three remained unknown. The most significant gap identified was the lack of consistent monitoring, which meant that progress may have been stronger than the available evidence was able to demonstrate. It noted that particular attention should be paid to those outcomes for which there was historically insufficient progress and monitoring, including those related to skills development and institutional capacity, which remain significant barriers to successful implementation. The review recommended a much stronger focus on developing measurable targets and indicators, and on establishing mechanisms to collect the information needed to report against them, including capturing the contributions of non-governmental and private sectors. It further emphasised the need for a realistic balance between feasibility and ambition, moving beyond business as usual while remaining within what is practically achievable.

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The **indicator gap analysis** showed that although South Africa has strong foundational biodiversity data, several systemic issues and specific gaps continue to hinder effective monitoring of the NBSAP. A recurring challenge was that previous and proposed targets often relied on vague terms, such as 'adequately incorporated', which lack clear definitions or measurement methods. Many targets also have no baseline data, making it difficult to assess progress or detect trends. Significant information gaps remain for several priority areas, including mapping of ecosystem degradation, restoration efforts, Other Effective area-based Conservation Measures (OECMs), municipal-level biodiversity data, biodiversity finance, and non-monetary benefits, among others. Addressing these gaps will require a concerted focus on monitoring, supported by strong coordination to move from fragmented reporting across mandate-specific source systems toward a federated, nationally coordinated biodiversity monitoring and indicator reporting system.

The monitoring gaps identified through the Early Action Support process will be taken forward through the National Monitoring Support Initiative and the development of a national biodiversity monitoring and indicator reporting system. The intended monitoring response is therefore not to replace existing data systems or duplicate the mandates of data-collecting institutions. Many potential source systems are designed to serve specific legal, policy, scientific or operational purposes. The National biodiversity monitoring and indicator reporting system will use a federated approach that respects these mandates while strengthening the alignment of approved outputs with NBSAP monitoring requirements. This will include clarifying indicator definitions, baselines, reporting periods, data custodians, metadata, data-sharing arrangements, quality-assurance processes and workflows for submitting approved indicator outputs into national reporting products.

A review of **policy alignment** with the biodiversity targets evaluated the likelihood of achieving these targets if existing laws and policies were comprehensively implemented. It found that South Africa possesses a strong legislative and policy foundation for biodiversity, primarily anchored by NEMA and its associated Acts, as well as the White Paper as the overarching policy framework. Several targets, such as those related to biodiversity-inclusive spatial planning and the biodiversity economy, were found to have clear policy that gives a high likelihood that these targets could be achieved. For complex issues like human-wildlife conflict and climate change, numerous policies exist, but it remains unclear how they interact or align, which creates a risk of reduced policy coherence. The review noted that in many instances, additional or new policy is not required, rather, the priority is the effective implementation and enforcement of existing instruments.

The **Biodiversity Expenditure Review** was conducted to understand historical spending patterns and guide future financing decisions for the updated NBSAP (BIOFIN, 2025). The review found that while nominal biodiversity expenditure grew to R20.14 billion in 2024, real spending power has persistently declined, with total expenditure remaining below 1% of the national budget (see **Funding of biodiversity in South Africa**). The review noted a major systemic constraint is fragmented reporting and the absence of a unified expenditure tracking system, particularly within municipalities and the private sector. Hence, it strongly recommended the introduction of a national biodiversity tagging framework to improve transparency, reporting and accountability. Similarly, a standardised methodology needs to be developed to better survey and track non-government and private sector expenditures.

3.3 Strategic approach and alignment

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South Africa's approach to this NBSAP was inspired by the transformative change assessment from the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES). The assessment identified the main causes of biodiversity decline to be social inequality, short-term economic priorities and a fundamental disconnection from nature (IPBES, 2024). Reversing biodiversity loss will require system-wide shifts in societal views, structures and practices. For the NBSAP, this means encouraging inclusive, accountable and adaptive governance structures, and involving diverse stakeholders in decisions. As a result, the process of developing South Africa's third NBSAP was highly inclusive and participatory, adopting a whole-of-government and whole-of-society approach to ensure the NBSAP is co-created and grounded in implementation realities.

The NBSAP was intentionally aligned with South Africa's obligations under the three Rio Conventions. The CBD, UNFCCC and UNCCD each have national implementation instruments, including the Nationally Determined Contributions under the UNFCCC and the National Action Programme for the UNCCD (Figure 9). The NBSAP, as South Africa's implementation instrument for the CBD, was aligned with these instruments to create synergies in implementation, avoid duplication or conflicting mandates, conduct joint resource mobilisation and integrate monitoring and reporting systems.

A key area of convergence across the three conventions is their shared emphasis on Ecosystem-based Adaptation as a means of strengthening human and ecological resilience to climate impacts (Table 2). They also prioritise the protection of vulnerable ecosystems, particularly Strategic Water Source Areas, which are essential for water security and disaster risk reduction. These areas of convergence directly support the implementation of KMGBF Target 2 on ecosystem restoration and Target 11 on maintaining nature's contributions to people. All three conventions place a strong focus on capacity development across all levels of governance and the mainstreaming of biodiversity considerations into the operations of other sectors. A practical example of this alignment is the NBSAP's direct adoption of South Africa's established Land Degradation Neutrality targets under the UNCCD as its ecosystem restoration targets.

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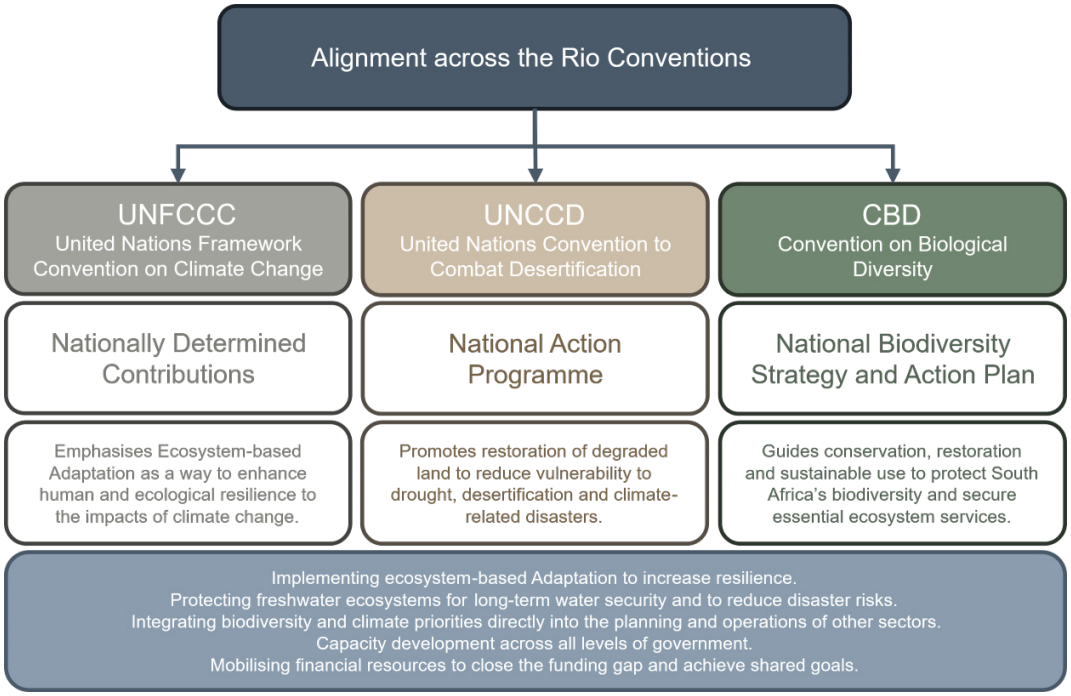


Figure 9. Alignment across the national implementation instruments of the three related Rio Conventions.

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Table 5. Comparison of alignment between South Africa's implementation for the three Rio Conventions, including related goals, outcomes and national targets.

	United Nations Framework Convention on Climate Change	United Nations Convention to Combat Desertification	Convention on Biological Diversity
National instrument	Second Nationally Determined Contribution (NDC) (RSA, 2025)	National Action Programme (NAP) (DFFE, 2018)	National Biodiversity Strategy and Action Plan (NBSAP)
Restoration and invasive alien species	Goal 6: Enhance ecosystem-based adaptation to heat and water stress, protecting South Africa's natural heritage, biodiversity and improving ecosystem functioning that underpins our cultural identity, food systems, human wellbeing and our tourism economy.	Outcome 6: By 2030, South Africa is to ensure that degraded ecosystems are restored whilst contributing to ecosystem services delivery, climate change adaptation and mitigation. Outcome 7: By 2019, South Africa's national voluntary targets to ensure a land degradation neutral world have been identified, formulated and implemented.	By 2035, at least 22% of degraded terrestrial ecosystems across biomes, as well as priority degraded ecosystems and ecological infrastructure across freshwater and coastal realms, are restored or rehabilitated and durably maintained, including by identifying, managing and minimising the impacts of harmful invasive alien species, to enhance biodiversity, ecological integrity, and ecosystem functions and services.
Ecological infrastructure and climate resilience	Goal 6: Enhance ecosystem-based adaptation to heat and water stress, protecting South Africa's natural heritage, biodiversity and improving ecosystem functioning that underpins our cultural identity, food systems, human wellbeing and our tourism economy.	Outcomes 6: By 2030, South Africa is to ensure that degraded ecosystems are restored whilst contributing to ecosystem services delivery, climate change adaptation and mitigation	By 2035, ecosystem-based adaptation or nature-based solutions are implemented to restore and maintain ecological infrastructure, including strategic water source areas, to enhance the resilience of ecosystems, species and communities to climate change and ocean acidification, reducing climate-related disaster risks.
Mainstreaming biodiversity	Goal 7: Capacitate all spheres of government to implement adaptation through enacting and enforcing all provisions of the Climate Change Act.	Outcome 2: By 2020, policy and institutional frameworks are effectively implemented and strengthened to minimise desertification, reverse land degradation and mitigate effects of drought (mainstream DLDD in other relevant sector policies)	By 2035, biodiversity and its multiple values are fully integrated into the policies, planning, and development processes across all sectors and spheres of government and society, including spatial planning, private sector and sustainable practices.
Means of implementation	Mobilise domestic resources, international climate finance, and private sector contributions to meet an access goal of $8 billion annually, expanding the use of innovative financial instruments.	Outcome 4: By 2019, the capacity of government institutions, non-governmental organisations (NGOs) and civil society to support efforts / initiatives aimed at mitigating desertification, land degradation and drought has been built. Outcome 5: By 2019, funding mechanisms to support landowners, communities and conservation entities to implement sustainable land use management have been established and are functioning.	By 2035, human and financial resources are secured and enhanced through mobilising financial resources from all sources and fostering a transformed, suitably skilled workforce to effectively implement the National Biodiversity Strategy and Action Plan.

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In addition to international alignment, the NBSAP reflects the national policy direction set by the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity. It directly adopts the vision and mission of the White Paper and ensures that all proposed activities support its core goals.

3.4 Approach to developing the NBSAP

3.4.1 Process map



Figure 10. The NBSAP development timeline.

3.4.2 Stakeholder consultation and drafting

The process of developing the third-generation NBSAP was initiated through the development of national targets. The development of the NBSAP was structured around a rigorous process of iterative consultation and technical review (10). The co-creation process was launched at a national stakeholder consultation in July 2025. This engagement was deepened through a series of intensive, thematic focus

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group sessions and the collection of formal written submissions, ensuring that diverse, sector-specific insights were captured. These inputs were consolidated into an initial draft, which underwent iterative refinement through various work sessions and formal technical review by the MINTEC Joint Working Group. A detailed comment and response table was maintained to provide a transparent record of how all stakeholder recommendations were considered and addressed. The refined draft was further discussed at the national consultative conference on 20 and 21 May and further subjected to a compulsory 30 day written public before it was recommended by intergovernmental structures for approval for implementation to Cabinet and and submission to the CBD.

Table 6. Register of NBSAP stakeholder engagements, focus groups and key outputs incorporated.

Engagement	Date	Attendance	Format	Key outputs incorporated
Initial NBSAP writing retreat	April 2025	45	In person	Refined national targets
Thematic group: Biodiversity finance	2 July 2025	77 (42 in person, 35 virtual)	Hybrid	
National stakeholder consultation	3-4 July 2025	237	In person	
Thematic group: People and parks	6 August 2025	30	Virtual	Written inputs
Thematic group: Ecosystem restoration and invasive species	7-8 August 2025	TBC	In person	Template completed
Thematic group: Wildlife forum	11 August 2025	30	Virtual	Meeting input notes
Thematic group: Spatial planning	12 August 2025	TBC	Virtual	Template inputs
Thematic group: Species	20 August 2025	TBC	Virtual	Template completed Written inputs
Thematic group: Biosafety	20 August 2025	TBC	Virtual	Template completed
Thematic group: Wildlife well-being	21 August 2025	TBC	Virtual	Written inputs
Thematic group: Access and Benefit Sharing	22 August 2025	TBC	Virtual	Template completed
Thematic group: Local government	25 August 2025	122	Virtual	Written inputs
Thematic group: Marine and coastal	28-29 August 2025	150	In person	Template completed Written inputs
Thematic group: Freshwater	1 September 2025	111	Virtual	Template completed
Thematic group: Biodiversity and health	5 September 2025	TBC	In person	Written inputs
Thematic group: Compliance and enforcement	9 September 2025	24	Virtual	
Thematic group: 30x30 protected area expansion	11 September 2025	TBC	Hybrid	Template completed Written inputs
Thematic group: Climate, waste and pollution	15 September 2025	TBC	Virtual	Template competed
NBSAP review meeting	1 October 2025	32	In person	Expanded outline
Draft 0 work session	15 January 2026	36	Virtual	Meeting notes
MINTEC Joint Working Group	25 February 2026	TBC	Hybrid	Meeting notes
BIOFIN consultations with indigenous peoples and local communities	31 March - 1 April 2026	56	In person	Written submissions
BIOFIN consultations with private sector	15 April 2026	36 in person	Hybrid	
BIOFIN consultations	16-17 April 2026	77	In person	

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4 Strategy

The third NBSAP directly adopts the vision, mission, goals, enablers and guiding principles of the **White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity** (2023) to establish a robust, unified policy foundation.

In March 2023, South Africa adopted the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity as an overarching framework to inform policies, legislation and practices involving biodiversity within terrestrial, aquatic, and marine ecosystems, managed by the state, and within communal and on privately-owned land. This includes biodiversity in natural as well as in controlled environments.

The White Paper provides policy certainty and guidance in the conservation, sustainable use, and fair and equitable access and benefit sharing of South Africa's biodiversity, in order to contribute to the transformation of society, the well-being of people and nature, and to the prosperity of society. The White Paper was published for implementation in June 2023.

At a strategic level, the White Paper will achieve the following high-level outcomes:

a) Policy certainty and a strong policy base for biodiversity conservation, sustainable use, and equitable growth in the biodiversity economy;
b) A requirement for coherent and effective biodiversity conservation and a duty of care for the benefit of current and future generations;
c) An integration of environmental, social, and economic elements to advance sustainable development that secures sustainable use
d) Repositioned protected and conservation areas as effective mechanisms to contribute to sustainable rural development;
e) A required process of transformation of the sector, with sustainable nature-based access and benefit flows for equitable and inclusive socio-economic growth and development; and
f) Enhanced South African leadership in biodiversity conservation and sustainable use which is internationally recognised and promoting of African coherence and unity.

The White Paper is aspirational and advocates for a society where all people have a high quality of life, a voice, and a nurturing earth supporting them and has adopted the following impact statement: "Thriving People and Nature".

4.1 Vision

The White Paper sets forth the following vision which has been adopted for the NBSAP:

> "An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations."

Impact: For South Africa to move steadily toward its vision of an inclusive, transformed society living in harmony with nature, the impact of this vision will be realised through:

1. ecosystems and species that are more protected and less threatened,

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2. well-regulated and enhanced sustainable use of biodiversity and
3. fair and equitable access to benefits derived from biodiversity, and
4. a more transformed capable and inclusive sector,

All these will demonstrate that the country is making real progress in halting and reversing the loss of its rich biodiversity. These gains also strengthen well-being, resilience and opportunities that biodiversity provides to people. In doing so, the NBSAP delivers its overarching impact of thriving people and thriving nature. The NBSAP is implemented as intended and progress is consistently monitored, reported and evaluated.

4.2 Mission

To conserve and manage South Africa's biodiversity, and ensure healthy ecosystems, ecological integrity and connectivity, with transformative socio-economic benefits to society for current and future generations through ecologically sustainable, and socially equitable use of what people value from nature.

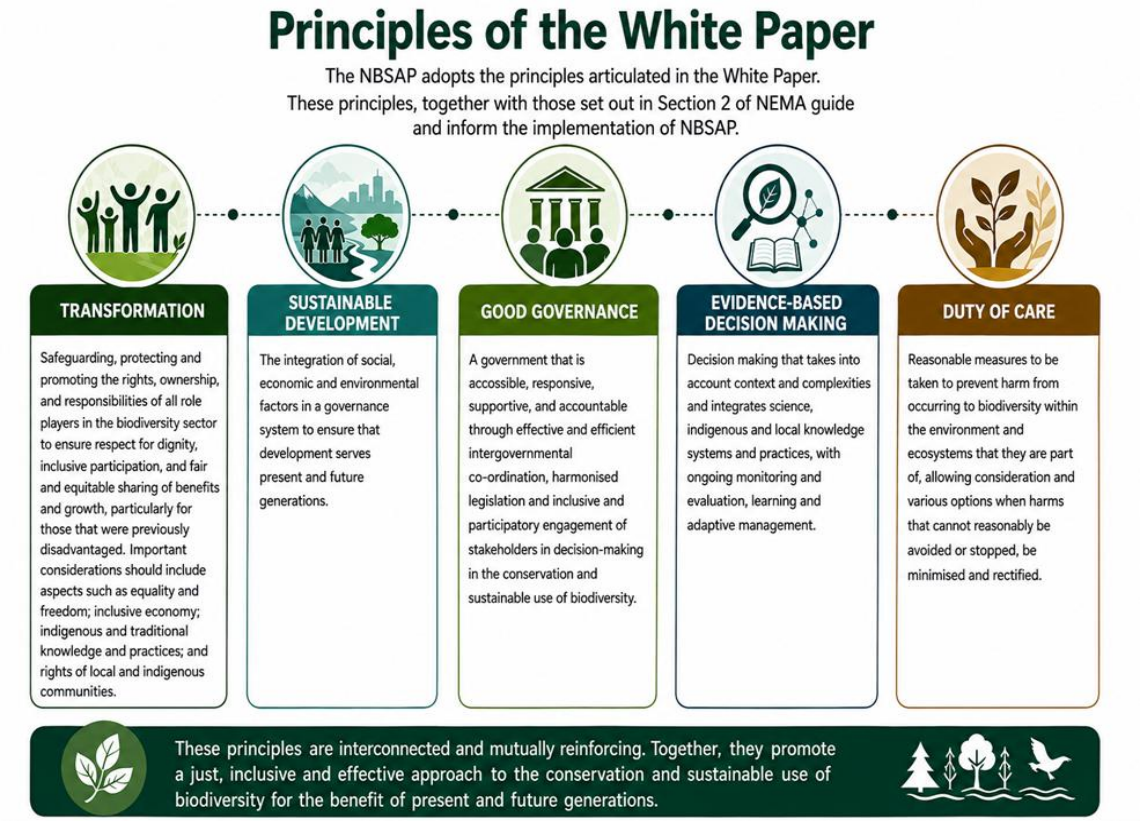
4.3 White Paper Goals and Enablers and Alignment with the KMGBF

White Paper Goals and Enablers	Aligned NBSAP thematic areas	Relevant KMGBF targets
Goal 1: Enhanced Biodiversity Conservation: All biological diversity and its components are conserved.	Ecosystem conservation Species conservation Restoration and invasive alien species Pollution and waste	Targets 2, 3, 4, 6, 7
Goal 2: Sustainable Use: The sustainable use of biodiversity enhances thriving living land- and seascapes and ecosystems, livelihoods, and human well-being, while a duty of care avoids, minimises, or remedies adverse impacts on biodiversity.	Sustainable use and the biodiversity economy Ecological infrastructure and climate resilience Human-wildlife coexistence	Targets 4, 5, 8, 9, 11, 15 (b)(c), 16
Goal 3: Equitable Access and Benefit Sharing: Benefits are derived and shared from the use and development of South Africa's genetic and biological resources, without compromising the national interests.	Access and benefit sharing Biosafety and benefits of biotechnology	Targets 13, 17
Goal 4: Transformed Biodiversity Conservation and Sustainable Use: Effect is given to the environmental right as contained in Section 24 of the Constitution which facilitates redress and promotes transformation.	Knowledge, participation and inclusion	Targets 21, 22, 23
Enabler 1: Integrated, Mainstreamed and Effective Biodiversity Conservation and Sustainable Use: Integrated policy and practice across government and the effective implementation of Multilateral Environmental Agreements.	Mainstreaming biodiversity	Targets 1, 10, 12, 14, 15, 18
Enabler 2: Enhanced Means of Implementation: Expanded and developed ability to effectively conserve biodiversity, to manage its use and benefits, whilst addressing factors threatening biodiversity.	Means of implementation	Targets 19, 20

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4.4 Principles

The NBSAP adopts the principles articulated in the White Paper. These principles, together with those set out in Section 2 of NEMA guide and inform the implementation of NBSAP.



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4.5 Action Plan Theory of change

South Africa's NBSAP creates logical pathways for implementation that reflect the country's socio-economic context and established biodiversity management practices. To effectively manage the extensive feedback received during the consultation process, stakeholder views were grouped into twelve thematic areas. These themes are aligned with high level national targets, target indicators and actions. This was to ensure that every element of the strategy was well-reasoned and based on evidence while also reflecting stakeholder views.

Thematic areas and national targets: The NBSAP is organised into twelve thematic areas (**Error! Reference source not found.**) explicitly designed to tackle the diverse suite of pressures driving biodiversity loss. This thematic approach ensures that composite national targets are integrated and synergistic, aligning with the goals of the White Paper.

KMGBF TARGETS TO 2030 → NATIONAL TARGETS TO 2035

	THEMATIC AREA	KMGBF TARGETS (2030)	NATIONAL TARGET (BY 2035)
1	Mainstreaming biodiversity	T1 T10 T12 T14 T15 T18	By 2035, biodiversity and its multiple values are fully integrated into the policies, planning, and development processes across all sectors and spheres of government and society, including spatial planning, private sector and sustainable practices, in ways that promote equity, inclusion and human rights, and result in decisions that avoid biodiversity loss.
2	Restoration and invasive alien species	T2 T6	By 2035, at least 22% of degraded terrestrial ecosystems across biomes, as well as priority degraded ecosystems and ecological infrastructure across freshwater and coastal realms, are restored or rehabilitated and durably maintained, including by identifying, managing and minimising the impacts of harmful invasive alien species, to enhance biodiversity, ecological integrity, and ecosystem functions and services.
3	Ecosystem conservation	T3	By 2035, expand a representative system of protected and conserved areas, covering 21% of land-based (terrestrial and freshwater) areas, and 20% of marine areas, ensuring they are effectively managed, equitably governed, and integrated into broader ecological and social land-, water- and seascapes.
4	Species conservation	T4	By 2035, prevent new extinctions, support the recovery of priority threatened species, maintaining their genetic diversity, and improve species protection level by 10%.
5	Human-wildlife coexistence	T4	By 2035, human-wildlife interactions are effectively managed to minimise conflict and promote coexistence to reduce impacts on both communities and species.
6	Sustainable use and the biodiversity economy	T5 T9 T16	By 2035, achieve a transformed, inclusive and viable biodiversity economy that ensures use of wild species is safe, legal and sustainable, protecting customary use and traditional knowledge, and providing equitable benefits to all people while enhancing biodiversity conservation.
7	Pollution and waste management	T7	By 2035, reduce pollution from all sources to levels not harmful to biodiversity and ecosystem services by implementing the circular economy and managing solid waste, wastewater and effluent to reduce risks from microplastics, nutrient loading, pesticides, hazardous chemicals and other contaminants.
8	Ecological infrastructure and climate resilience	T8 T11	By 2035, ecosystem-based adaptation or nature-based solutions are implemented to restore and maintain ecological infrastructure, including strategic water source areas, to enhance the resilience of ecosystems, species and communities to climate change and ocean acidification, reducing climate-related disaster risks and generating other societal benefits.
9	Access and benefit sharing	T13	By 2035, increase fair and equitable benefit sharing by ensuring more users of genetic resources and traditional knowledge are compliant with access and benefit sharing requirements, resulting in measurable growth of monetary and non-monetary benefits for biodiversity conservation and for indigenous peoples, local communities and farmers as rights holders.
10	Biosafety and benefits of biotechnology	T17	By 2035, strengthen capacity and enhance implementation of biosafety measures for the safe transfer, handling, use and release of genetically modified organisms into the environment, and facilitate equitable participation in biotechnology research, development and access to its benefits, while minimising risks to biodiversity and human health.
11	Means of implementation	T19 T20	By 2035, human and financial resources are secured and enhanced through mobilising financial resources from all sources and fostering a transformed, suitably skilled workforce to effectively implement the National Biodiversity Strategy and Action Plan.
12	Knowledge, participation and inclusion	T21 T22 T23	By 2035, ensure access to scientific and traditional knowledge, with free, prior and informed consent of knowledge holders, to empower women, youth, previously disadvantaged individuals, persons with disabilities and indigenous peoples and local communities to participate meaningfully and access justice, thereby advancing transformation in biodiversity conservation and sustainable use.

The thematic areas span the core conservation functions required to maintain and restore ecological integrity, including ecosystem and species conservation, the restoration of degraded areas, the management of invasive alien species, and efforts to strengthen ecological infrastructure for climate resilience. They also encompass the ways people interact with biodiversity, from improving human-wildlife coexistence and advancing sustainable use and the biodiversity economy, to ensuring fair access

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and benefit sharing and supporting the safe and beneficial application of biotechnology. Pollution and waste management form a dedicated focus given their pervasive impacts across realms. Additional thematic areas ensure that biodiversity is integrated into planning and decision-making, that implementation is supported by adequate capacity and finance, and that knowledge, participation and inclusion are central to effective governance. Together, these thematic areas establish the foundation for specific actions.

Thematic areas are related to national targets that are reflected under the Action Plan. These national targets represent a high-level, aspirational end-state strongly aligned with both the KMGBF and the White Paper

Action plan: Each thematic area has a unique set of actions selected to address its specific context and achieve the national target. The activities were filtered to ensure they represented concrete, national-level implementation steps that addressed known barriers, leveraged existing tools and assigned clear institutional responsibilities. To avoid becoming overly prescriptive, the blueprint required that activities provide strategic direction rather than listing specific local projects

HIGH LEVEL ACTION	RATIONALE
Conserve	Conservation and restoration actions improve the ecological status of species and ecosystems by reducing direct pressures and building resilience
Restore	
Manage	Management and mainstreaming actions shift how land, water and natural resources are used and regulated, ensuring that biodiversity considerations influence planning and decisions that avoid biodiversity loss
Mainstream	
Resource	Resourcing actions refers to allocation of resources (finance and capacity to strengthen implementation
Empower	learning and empowerment actions improve the evidence base needed to understand and value biodiversity
Learn	

These activities create the causal mechanism through which implementation leads to measurable improvements in biodiversity, sustainable use and equitable benefits.

Indicators: To align with the KMGBF headline indicators, all indicators are explicitly outcome-oriented instead of simply tracking the completion of implementation actions. The indicators are designed to measure quantifiable evidence of success, such as actual changes in biodiversity status or sustainable use. The NBSAP uses a set of high-level indicators to show whether the actions in each thematic area are producing the intended changes. Each thematic area has its own detailed metrics, many of which align directly to the KMGBF headline indicators required for reporting to the CBD. Ecosystem and species status indicators reflect the results of conservation and restoration, showing whether ecosystems are recovering and extinction risks are declining. Integration and mainstreaming indicators reveal whether biodiversity considerations are beginning to influence planning and decision-making. Use and trade indicators demonstrate whether resource use is shifting toward long-term ecological sustainability, while benefit flows show whether the benefits derived from biodiversity are becoming more fairly distributed. Participation and governance indicators track whether institutions and processes are becoming more inclusive and effective, while knowledge and awareness indicators capture whether society is better informed and engaged. The indicators provide the evidence needed to understand whether implementation is moving ecological, social and governance conditions in the direction required to meet national targets and the long-term vision.

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Goals and outcomes: If the actions in each thematic area are implemented and the indicators are measured, South Africa will see the kinds of changes described in the four goals of the White Paper. Enhanced biodiversity will become visible through avoided losses, recovering species, more resilient ecosystems and better protection of representative areas, supported by reduced pressures such as invasive species and pollution. Sustainable use will be reflected in safer interactions between people and wildlife, viable and inclusive biodiversity-based livelihoods, legal and well-managed trade, and resource use that maintains ecological foundations while delivering equitable benefits. Equitable access and benefits will grow through increasing returns to communities and knowledge holders, improved security of genetic resources, and reduced risks to human, animal and plant health. A transformed conservation sector will be characterised by more just and inclusive governance, accessible knowledge, stable and diversified financing, and a skilled workforce capable of sustaining long-term implementation. Together, these outcomes describe the change the NBSAP is designed to achieve.

Vision and impact: If the NBSAP is implemented as intended and progress is consistently monitored, South Africa will move steadily toward its vision of an inclusive, transformed society living in harmony with nature. The improvements reflected in the indicators and outcomes, including ecosystems and species that are less threatened, more sustainable use, fairer access to benefits, and a more capable and inclusive sector, will show that the country is making real progress in conserving its rich biodiversity. These gains also strengthen well-being, resilience and opportunities that biodiversity provides to people. In doing so, the NBSAP delivers its overarching impact: thriving people and thriving nature.

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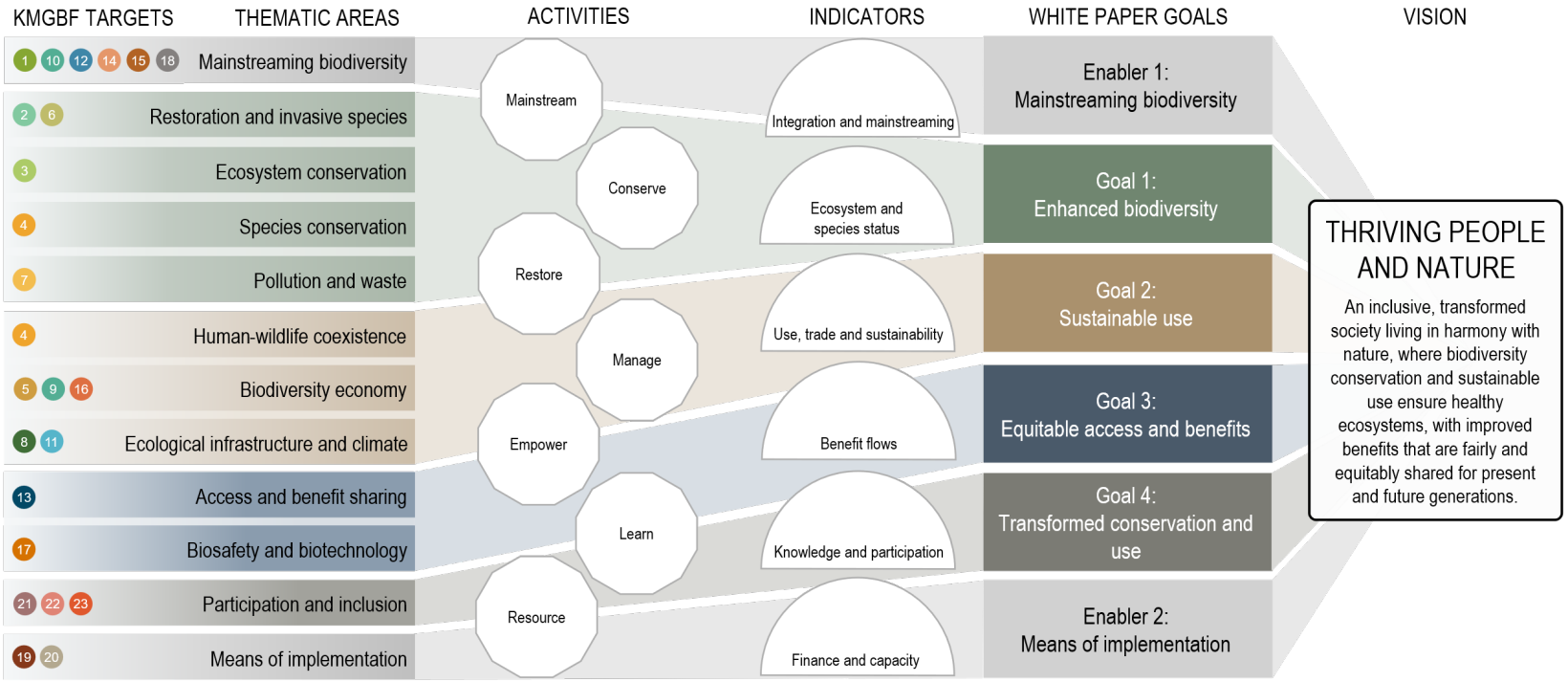


Figure 11. Summary theory of change for the National Biodiversity Strategy and Action Plan, showing how activities within the 12 thematic areas will result in measurable changes to indicators that help to achieve the goals and vision of the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity, and the global targets of the Kunming-Montreal Global Biodiversity Framework.

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Table 3. Detailed theory of change for the National Biodiversity Strategy and Action Plan, showing how activities within the 12 thematic areas will result in measurable changes to indicators that help to achieve the outcomes and goals of the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity.

Impact	Thriving people and nature
Vision	An inclusive, transformed society living in harmony with nature, where biodiversity conservation and sustainable use ensure healthy ecosystems, with improved benefits that are fairly and equitably shared for present and future generations.

Activities	Indicators	Outcomes and goals	
Conserve: Protect ecosystems, species and genetic diversity	Ecosystem and species status	Avoided loss of biodiversity Ecological integrity and resilience No extinctions and recovered species Representative conservation Threats to biodiversity mitigated	**Enhanced biodiversity**
Restore: Rehabilitate ecosystems and ecological infrastructure	Integration and mainstreaming		
Manage: Coordinate the use of land, water, sea and natural resources	Use, trade and sustainability	Effective human-wildlife coexistence Inclusive and viable biodiversity economy Legal trade Sustainable use of natural resources Equitable benefits from use	**Sustainable use**
Mainstream: Integrate biodiversity into policy, planning and decisions	Benefit flows	Growth in benefits Traditional knowledge valued Equitable participation Genetic material secured Reduced risks to health	**Equitable access and benefits**
Resource: Mobilise finances and build capacity	Participation and governance		
Empower: Strengthen participation, rights and equity	Knowledge and awareness	Justice and inclusive participation Accessible knowledge Secured financial resources Skilled and transformed workforce NBSAP effectively implemented	**Transformed conservation and use**
Learn: Generate, analyse and share biodiversity information			

Thematic areas					
Mainstreaming biodiversity	Ecosystem conservation	Human-wildlife coexistence	Pollution and waste	Access and benefit sharing	Means of implementation
Restoration and invasive species	Species conservation	Biodiversity economy	Ecological infrastructure and climate	Biosafety and biotechnology	Participation and inclusion

Pressures on biodiversity			Policy challenges		
Biological resource use	Natural system modifications	Climate change	Fragmented responsibilities	Lack of transformation	Limited capacity
Land and sea use change	Invasive species	Pollution	Underfunded mandates	Uneven governance	Proliferation of policy

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5 Action plan

The Action Plan is organised into twelve thematic areas that reflect South Africa's specific biodiversity and socio-economic context, as well as its existing biodiversity management practices. Instead of treating the global targets in isolation, the approach groups related KMGBF targets into clusters that show how interventions work collectively to achieve biodiversity outcomes. The structure follows a consistent logic blueprint (Table 6) that establishes criteria for what information is included.

Table 6. Blueprint developed to guide consistency and content decisions in developing the thematic areas of the National Biodiversity Strategy and Action Plan, including the focus of each element, the criteria used to develop it and the standardised length and structure.

Element	Criteria	Length and structure
Rationale	Explains why South Africa has taken the decision to group KMGBF targets, or other important aspects of the general approach to the target.	Short paragraph of around 200 words. Present tense.
Theory of change	**1. Logic:** Show how activities lead to movement in the indicators, which lead to achievement of the target. **2. Includes causal explanations**: Not just lists repeating the activities and indicators.	Short paragraph of around 150-200 words. Present tense Short bulleted summary
National target wording	**1. High-level, aspirational end-state.** A concise, time-bound statement defining the overall goal to be achieved within the thematic area by 2035. **2. Simplicity and clarity:** The target must be simple enough to be understandable and enable wide contribution. **3. Policy alignment:** Must reflect the KMGBF target/s being addressed and align with the core vision and goals of the White Paper. **4. Biodiversity purpose:** The statement must have an articulated biodiversity purpose to ensure it remains in the scope of the NBSAP. **5. Focus group inputs:** The wording must consider all suggestions from the focus group inputs for that thematic area.	20-40 words, time bound, outcome focussed. Present tense with time marker "By 2035, [active verb] [specific outcome, focusing on the desired end-state]."
Target Indicators	**1. Measurable evidence of success.** Quantitative metrics that will be used to track and verify whether the target has been achieved. **2. KMGBF alignment:** Must prioritise the use of KMGBF headline indicators. **3. Quantifiable:** Must track quantifiable metrics related to outcomes of the target. **4. Feasible:** Must preferably be based on existing reporting sources with available baseline data, but where this is not possible, must identify new monitoring systems needed. **5. Outcome-oriented:** Should preferably measure biodiversity outcomes, such as status, trends, condition, rather than implementation activities such as planning processes or institutional actions. (More detailed implementation and output indicators can be part of annual work plans, see Error! Reference source not found.). Given that the national target comprises multiple actions, it was not possible to identify a single headline indicator.	3-10 indicators per national target. By 2035, [direction of change/action verb] [metric/quantity] [subject] [context/status].
Activities	**1. High-level implementation steps.** Concrete, specific, short- to medium-term operational steps and mechanisms at a national level. **2. Address barriers:** Activities must directly address the known gaps and constraints identified in stakeholder engagement and the previous NBSAP review. **3. Institutional mandate:** Must assign clear lead and support responsibilities to ensure accountability across different sectors and spheres of government.	5-15 priority activities per national target, starting with an active verb. [Active verb, e.g., develop, mandate, implement, strengthen, prioritise] [Specific deliverable or action].

	4. Leverage existing tools: Prioritise the implementation of existing initiatives, strategies and platforms rather than calling for new structures. **5. Policy coherence:** Must avoid fragmentation, duplication, and overlaps across government spheres. **6. National level:** The NBSAP is a national-level plan, and cannot capture details of specific activities at provincial or local level, or for specific subsectors. **7. Implementation-focussed**: Must identify actions to be implemented, not outcomes to be achieved. **8. Data and monitoring:** Must include activities related to (1) foundational data, (2) monitoring, reporting and evaluation, and where relevant, (3) compliance and enforcement. **9. Not prescriptive**: Provide strategic direction rather than detailed instructions, and do not mention specific projects unless essential. Lead organisations can further determine appropriate methods, focal taxa, etc.	
Policy links	**1. Draws from policy review:** Uses the policy review done as part of the Early Action Support project to identify main policies relevant to the achievement of the thematic area. **2. Existing policies:** Includes only existing policies in their latest form.	Bulleted list with dates in brackets.

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5.1 Mainstreaming biodiversity

5.1.1 Rationale

This thematic area clusters global targets for integrated spatial planning (T1), sustainable production in agriculture, forestry and fisheries (T10), urban green and blue space (T12), mainstreaming biodiversity (T14), business disclosures (T15), and the reform of economic incentives (T18) to provide a coherent national implementation pathway. Grouping these targets under the broader theme of mainstreaming biodiversity reflects South Africa's long-standing recognition that conservation cannot be achieved through protected areas alone, but must be embedded across land-use, water-use, sea-use, and development planning. The country has consistently sought to link biodiversity with broader social and economic priorities such as poverty reduction, job creation, climate, energy, food and water security, and equitable access to resources, ensuring that biodiversity is integral to the national development agenda.

South Africa has robust spatial biodiversity information on biodiversity priority areas, strategic water source areas, threatened species and ecosystems, and more. These foundational data are suitable and available for incorporation into multi-sectoral spatial planning, decision-making on environmental authorisations, private sector disclosure, and production sector land and water management. These data can also be integrated into the District Development Model, and its catalytic projects, to ensure that biodiversity contributes to poverty alleviation and job creation at the local government level. Furthermore, mainstreaming biodiversity within the agriculture sector provides an evidence base and indicators for a comparative approach to biosafety monitoring (see **Biosafety and benefits of biotechnology**). Using the same foundational information across this wide range of applications improves coherence and ensures that all actors are working towards the shared goal of avoiding biodiversity loss in the broader working landscape. Mainstreaming biodiversity has been identified as a specific enabler in the White Paper, which calls for integrated policy and practice across government and society. By grouping these targets, South Africa emphasises that mainstreaming biodiversity inherently requires engagement with government (T14, T1, T12), the private sector (T15), and production sectors (T10), as well as with local communities and other stakeholders, making integration across policies, planning, and practices an effective pathway to safeguard biodiversity.

5.1.2 Theory of change

This thematic area is premised on the need for high-quality, up-to-date biodiversity data and information, particularly spatial biodiversity plans, to transform how government and society plan and make decisions that are inclusive of biodiversity. Activities to gather foundational data, sustain capacity for spatial biodiversity planning, and ensure clear access to information provide the basis for mainstreaming biodiversity. This includes the implementation of the National Natural Capital Accounting (NCA) Strategy to integrate biodiversity values into national accounting systems, while specialised accounts, in particular the biodiversity economy accounts (see **Sustainable use and the biodiversity economy**) and ecosystem service accounts (see **Ecological infrastructure and climate resilience**), provide information essential to other thematic areas. Then, targeted training, resources and support are provided to specific sectors, including local government, the private sector, and production sectors, to integrate this information into their planning, operations, and reporting, while competent authorities are supported to

make science-based decisions, enforce compliance with regulations and provide incentives to motivate uptake. These actions drive measurable shifts in the indicators: spatial development plans become biodiversity-inclusive, municipalities allocate budgets for ecological infrastructure, and companies disclose their dependencies and impacts on nature. Together, these changes ensure land-, water- and sea-use decisions at all levels avoid biodiversity priority areas. Proactively, spatial planning instruments direct incompatible land-, water- or sea- uses away from biodiversity priority areas, while reactively, development authorisations decline or set appropriate conditions for activities that would impact on important biodiversity. The ultimate success of these interventions is captured by the Red List of Ecosystems headline indicator, demonstrating that biodiversity loss is avoided across broader working landscapes and seascapes.

IF high-quality spatial biodiversity data and natural capital accounting are fully integrated into government planning, municipal zoning and private sector business practices,
THEN development and investment decisions across all sectors will actively avoid the loss of biodiversity in working landscapes and seascapes,
BECAUSE providing decision-makers and businesses with accurate maps, targeted training and clear reporting frameworks ensures they can direct incompatible land, water, and sea uses away from South Africa's most important natural assets before they build or invest

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National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, biodiversity and its multiple values are fully and equitably integrated into the policies, planning, and development processes across all sectors and spheres of government and society, including spatial planning, private sector and sustainable practices, resulting in decisions that avoid biodiversity loss.	*By 2035, no deterioration in the* threat status of ecosystems as measured by the Red List of Ecosystems.	1	A.1	National Biodiversity Assessment
	By 2035, 100% of terrestrial, freshwater and estuarine areas are covered by relevant Spatial Development Frameworks or National Estuarine Management Protocol that incorporate systematic biodiversity plans not older than 10 years.	1	1.1	Amalgamated National CBA and ESA report. Further sources needed to measure integration.
	By 2035, 50% of marine territory is covered by Marine Area Plans that incorporate biodiversity spatial plans not older than 10 years.	1	1.1	Further sources needed to measure integration.
	By 2035, 100% of municipalities include explicit biodiversity objectives, targets and budget lines in their current Integrated Development Plans (IDPs) or District Development Model One Plans.	14	-	SALGA repository and IDP audits.
	By 2035, increase in the average share of urban built-up area that is green or blue space for public use for all.	12	12.1	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, increase in the number of companies disclosing their biodiversity-related risks, dependencies and impacts.	15	15.1	Not currently measured data can be sources from Company annual reports, sustainability reports, ESG disclosures.
	By 2035, increase in the number of positive incentives in place to promote biodiversity conservation and sustainable use.	18	18.1	OECD Policy Instruments for the Environment database (currently outdated for South Africa)
	By 2035, increase in the proportion of agricultural area under productive and sustainable agriculture.	10	10.1	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, maintain at least 80% of commercial plantation forest area under independently verified sustainable forest management certification schemes.	10	10.2	State of Forests report.

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Actions	Responsibility
Prioritise the collection, collation, and coordination of foundational data on species and ecosystems to ensure spatial biodiversity data is current and available.	**Lead:** SANBI
Continue to convene the Biodiversity Planning Forum and Technical Working Group to support provincial, metro, freshwater, estuarine and marine biodiversity planners in developing, consistent spatial biodiversity plans across the country.	**Lead:** SANBI
Update the National Freshwater Ecosystem Priority Areas and the Marine Critical Biodiversity Areas Map to ensure that aquatic considerations are fully integrated into spatial biodiversity planning.	**Lead:** SANBI
Enhance and ensure access through recognised existing platforms to biodiversity data, knowledge products and mainstreaming tools, while tracking metrics for their dissemination and sectoral uptake.	**Lead:** SANBI
Provide tailored training, awareness, and technical guidance to different user groups (local government, private sector, production sectors) on how to access and apply a definitive set of biodiversity information and spatial biodiversity plans, ensuring consistent underlying data sources are used across all mainstreaming activities.	**Lead:** SANBI, DFFE
Ensure that the Environmental Screening Tool includes the most up-to-date and appropriate biodiversity datasets, protocols and guidelines, including developing a marine theme for the Environmental Screening Tool.	**Lead:** DFFE **Support:** SANBI
Facilitate and accelerate the gazetting of biodiversity spatial plans and bioregional plans under the Biodiversity Act or their adoption under provincial legislation.	**Lead:** Local Government, Provincial conservation agencies **Support:** SANBI
Mandate the integration of spatial biodiversity plans into the District Development Model and municipal planning instruments, including Integrated Development Plans, Spatial Development Frameworks, Marine Area Plans and One Plans.	**Lead:** Local government, DFFE, provincial conservation agencies, COGTA
Ensure harmonisation between spatial biodiversity plans and the outputs of the Preservation and Development of Agricultural Land Act (Act 39 of 2024) to foster integrated land-use planning that supports both biodiversity and food security.	**Lead:** DFFE, DoA
Develop and promulgate a model municipal biodiversity by-law, in accordance with requirements in the National Environmental Management Act (Act 107 of 1998), with implementation guidance to harmonise mandates and enforcement.	**Lead:** DFFE, SANBI **Support:** COGTA, SALGA, provincial conservation agencies
Develop a set of biodiversity indicators for local government, including provision and access to green and blue spaces and integration of spatial biodiversity plans, and include these into IDP reporting.	**Lead:** DFFE, SANBI **Support**: COGTA, SALGA, provincial conservation agencies
Implement a One Health approach by integrating biodiversity into national and provincial multi-sectoral coordination mechanisms and specific sectoral policies and plans (including agriculture, health and others) to address the interlinkages between human, animal, plant and ecosystem health.	**Lead:** DFFE **Support:** SANBI, SANParks, NDoH, DoA, research institutions,
Harmonise biodiversity disclosure frameworks to reduce reporting duplication and focus mandatory reporting away from compliance toward tracking meaningful impacts on biodiversity.	**Lead:** DFFE, National Treasury **Support:** JSE, business and biodiversity platforms, SANBI, Department of Trade, Industry and Competition (CIPC)

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Actions	Responsibility
Partner with large[2] and transnational companies to regularly monitor, assess and disclose their risks, dependencies and impacts on biodiversity in accordance with existing legal, administrative and/or policy frameworks.	**Lead:** DFFE, National Treasury, Business Unity South Africa **Support:** JSE, business and biodiversity platforms, SANBI
Explore and develop positive (non-punitive) incentives to motivate private and production sectors to mainstream biodiversity considerations into their core operations, investment portfolios, and reporting.	**Lead:** DFFE, National Treasury **Support:** JSE, business and biodiversity platforms, SANBI
Implement the National Natural Capital Accounting Strategy (2021) to integrate biodiversity values into national accounting systems and cross-sectoral development planning.	**Lead:** Stats SA, SANBI **Support:** DFFE, DWS
Strengthen and resource Compliance Monitoring and Enforcement units to effectively conduct proactive and reactive site inspections and issue administrative directives against any developments initiated without the required Environmental Authorisation.	**Lead:** DFFE
Establish baselines for currently unmeasured indicators, specifically urban green/blue space, private sector disclosures, and sustainable agricultural area, to enable tracking toward 2035 targets.	**Lead:** SANBI **Support:** DFFE

[2] Large companies include: Groups or companies with turnover exceeding R1 billion; Groups or companies listed on a stock exchange; Multinational enterprises (including e-commerce or foreign electronic service providers); Mining groups/companies with turnover exceeding R500 million - (adapted from SARS).

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5.2 Restoration and invasive alien species

5.2.1 Rationale

In the South African context, ecosystem restoration and invasive alien species management are often interdependent. South Africa faces a high invasive species burden, with invasive alien plants, in particular, driving water loss and scarcity, altering fire regimes, and displacing indigenous species, making these a primary driver of degradation. Generally, degradation of land and water is often the result of invasive alien species, and ecosystems such as fynbos or rivers and their riparian zones cannot be restored without removing the invasive species that cause their decline. Management of invasive alien species can be effective when paired with active restoration that re-establishes indigenous biodiversity. National environmental programmes have long treated the clearing of invasive alien plants as the primary method of restoring catchments and ecological infrastructure. By grouping global targets for ecosystem restoration (T2) and the management of invasive alien species (T6), South Africa places emphasis on ecological infrastructure, ensuring that interventions focus on restoring the functionality of landscapes and catchments, and the provision of ecosystem services, rather than simply counting hectares cleared.

Grouping these targets also strengthens reporting efficiency, since the area cleared of invasive plants can contribute to global targets on restoration, land degradation neutrality and invasive species control. To ensure national and international reporting consistency, the specific hectare-based indicators for restoration and the management of invasive species and bush encroachment are directly aligned with South Africa's Land Degradation Neutrality targets submitted to the UNCCD (DFFE, 2025). Consequently, these specific indicators reflect a 2030 timeframe rather than the 2035 target used elsewhere in the NBSAP. Land degradation is broadly defined as the reduction or loss of the biological or economic productivity of the land (UNCCD), or its reduced capability to produce benefits from particular land uses (FAO). It is important to note that technical methods to measure and map degradation are still being refined, and depend on the definition used and what is included. The restoration targets for this thematic area are currently informed by the national estimate that approximately 30% of South Africa's land area is degraded (Table 4; RSA, 2024). The percentage used in the target for this thematic area reflects the combined area of biome restoration, bush encroachment and invasive species targets as per the LDN targets (DFFE, 2025).

Table 4. Hectare and percentage targets for restoration and invasive species clearing, drawn from the Land Degradation Neutrality targets submitted to the United Nations Convention to Combat Desertification (DFFE, 2025).

	Area (km²)	Percentage	Source
Total area of South Africa	1 220 813		Stats SA (2025)
Degraded area of South Africa	361 361	29.6%	RSA (2024)
Biome targets	63 285		
Fynbos	13 497		DFFE (2025)
Thicket	876		DFFE (2025)

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Grassland	14 362		DFFE (2025)
Savanna	26 461		DFFE (2025)
Succulent Karoo	1 499		DFFE (2025)
Nama Karoo	5 286		DFFE (2025)
Desert	765		DFFE (2025)
Indian Ocean Coastal Belt	539		DFFE (2025)
Intervention targets	17 595		
Bush encroachment	6 337		DFFE (2025)
Invasive alien species clearing	10 639		DFFE (2025)
Wetland rehabilitation	619		DFFE (2025)
TOTAL	**80 880**	**22%**	

Beyond plants, invasive alien species across all realms, such as invasive freshwater fauna that directly threaten the persistence of indigenous fish and invertebrates, must be addressed to ensure that restoration efforts result in the recovery of entire biotic communities. It should also be noted that successful restoration, especially in aquatic ecosystems, is also increasingly dependent on addressing pollution and waste to recover ecosystem integrity and function (see **Pollution and waste**). Furthermore, the restoration and maintenance of ecological infrastructure is one of the primary delivery mechanisms for Ecosystem-based Adaptation (EbA), which uses biodiversity and naturally functioning ecosystems to help people adapt to the adverse effects of climate change (see **Ecological infrastructure and climate resilience**).

5.2.2 Theory of change

Improved data collection and mapping of ecosystem condition and invasive species distributions provides the evidence base for prioritising interventions in areas where the return on investment for ecosystem services is highest. Existing national programmes then implement large-scale restoration in identified priority areas important for biodiversity or ecological infrastructure, with an emphasis on long-term maintenance. Pathways are identified to transition participants from short-term environmental employment into long-term career trajectories or entrepreneurship opportunities, thereby strengthening livelihoods and sustaining restoration capacity. Alongside this, control and management plans for faunal and floral freshwater invasive species are implemented in priority water source areas, riparian areas, and protected and conserved areas, linked to the recovery of indigenous species. The implementation of the National Invasive Species Strategy and Action Plan strengthens the regulation of pathways, species- and site-level management, and governance mechanisms. Coordinated enforcement across departments and border authorities reduces new introductions, while multi-stakeholder implementation models expand involvement in restoration and invasive species management across the whole of society. Continued investment in applied research and alignment of monitoring frameworks ensures consistent measurement of

progress through regular structured reporting. These linked actions address biological invasions as a primary driver of ecosystem degradation in South Africa, ultimately restoring priority degraded ecosystems and ecological infrastructure to improve ecosystem services for society by 2035.

IF large-scale restoration interventions are implemented in priority areas and harmful invasive alien species are actively cleared and strictly regulated,

THEN degraded ecosystems and ecological infrastructure will recover, improving vital services like water security and grazing capacity, while supporting job creation,

BECAUSE removing the biological drivers of degradation, including invasive plants and bush encroachment, directly enables natural systems to recover and resume providing essential ecosystem services, like water security, to society.

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National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, at least 22% of degraded terrestrial ecosystems across biomes, as well as priority degraded ecosystems and ecological infrastructure across freshwater and coastal realms, are restored or rehabilitated and durably maintained, including by identifying, managing and minimising the impacts of harmful invasive alien species, to enhance biodiversity, ecological integrity, and ecosystem functions and services.	*By 2030, 6.3 million hectares of* degraded land across all biomes (disaggregated according to Land Degradation Neutrality targets) restored or rehabilitated.	2	2.1	Environmental Programme statistics, aligned with UNCCD reporting
	By 2030, 633 702 hectares of bush encroached land is cleared and managed.	2	2.1	Environmental Programme statistics, aligned with UNCCD reporting
	By 2030, 1.1 million hectares of invasive alien species are cleared and managed.	2	2.1	Environmental Programme statistics, aligned with UNCCD reporting
	By 2035, 61 000 hectares of degraded wetlands restored or rehabilitated.	2	2.1	Environmental Programme statistics, aligned with UNCCD reporting
	By 2035, 1 200 hectares of degraded estuaries restored or rehabilitated.	2	2.1	Environmental Programme statistics
	By 2035, 10% of hardened coastline rehabilitated.	2	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, reduce the rate of introduction of new unregulated invasive alien species.	6	6.1	National Status Report on Biological Invasions
	By 2035, stable or declining number of invasive alien species that have 'major' impacts.	6	-	National Status Report on Biological Invasions
	By 2035, stable or declining extent of area suffering from 'major' negative impacts from invasive alien species.	6	-	National Status Report on Biological Invasions
	By 2035, increase in the level of success in managing invasive alien species.	6	-	National Status Report on Biological Invasions
	By 2035, increase in inclusive representation and participation in the coordinated governance and multistakeholder implementation of restoration and invasive alien species initiatives.	2,6		Not currently measured but data can be sourced through National Invasive Species Strategy and Action Plan implementation

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Actions	Responsibility
Improve and standardise data collection and mapping of ecological condition and integrity, and the spatial extent of invasive alien species infestations, across all realms, to enable evidence-based prioritisation of restoration and invasive species management interventions.	**Lead:** SANBI **Support:** Research institutions, DFFE
Build off existing environmental programmes to implement integrated landscape or catchment scale restoration interventions in identified priority areas important for biodiversity or ecological infrastructure, using a cost-benefit approach and a focus on long-term maintenance.	**Lead:** DFFE, SALGA (Municipalities) **Support:** NGOs, communities, landowners.
Implement a programmatic approach to restore grasslands and savannas impacted by bush encroachment and tree thickening, applying good practices across diverse land tenures, to restore ecological integrity, grazing capacity and water yield.	**Lead:** DFFE, DoA **Support:** SANBI, provincial conservation agencies, SALGA (municipalities), NGOs
Develop and scale innovative sustainable finance mechanisms for restoration activities, such as biodiversity, water or carbon bonds and credits, or water tariffs and charges, to leverage long-term cost-savings for the state, agriculture and business – (biomass economy inclusion).	**Lead:** DFFE **Support:** National Treasury, DWS, SANBI, BIOFIN, CMAs, NGOs, private sector
Implement the National Invasive Species Strategy and Action Plan (NISSAP), which covers all realms and includes activities to address pathways of introduction and spread, invasive species, invaded sites, governance, and implementation of enabling mechanisms.	**Lead:** DFFE **Support:** SANBI, SALGA, NGOs, Private Sector, Communities
Strengthen regulatory and institutional coordination across national departments, provincial authorities, and border management authorities to ensure effective control of potential introduction pathways, including the enforcement of invasive species legislation and regulations.	**Lead:** DFFE **Support:** Border Management Authority, DWS, DoA
Foster multi-stakeholder implementation models that integrate government, traditional authorities, private landowners, and civil society into sustainable land management and restoration practices and initiatives to adopt a whole-of-society approach.	**Lead:** DFFE **Support:** Other National and Provincial government depts, NGOs, SALGA, Communities,
Maintain and expand national capacity in applied research to support decision-making, focusing on invasion science, restoration ecology, and the development of innovative control technologies (e.g., classical biological control and research on soil systems).	**Lead:** DFFE, SANBI **Support:** Research agencies, Universities
Implement prevention, control and management plans for both faunal and floral freshwater invasive species, targeting high-impact species in priority areas, such as strategic water source areas, riparian areas and water systems within, around or flowing into protected and conserved areas, linking control with the proactive recovery of indigenous species.	**Lead:** SANBI, DWS, DoA **Support:** DFFE, provincial conservation agencies, CMAs, NGOs, communities
Identify ways to transition participants from short-term environmental employment into long-term career paths or entrepreneurship opportunities.	**Lead:** DFFE
Align national restoration and invasive species monitoring and reporting with the KMGBF, UNCCD Land Degradation Neutrality (LDN) and drought management frameworks, including a consolidated national restoration project inventory to capture restoration projects and establish baselines for currently unmeasured indicators.	**Lead:** DFFE **Support:** SANBI, Universities and Research Institutes e.g. SAEON, SANSA
Develop and implement a national awareness and education programme on land degradation, prevention and sustainable land management	**Lead:** DFFE, DoA, DWS **Support:** SANBI, SALGA, NGOs, and communities

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5.3 Ecosystem conservation

5.3.1 Rationale

South Africa's approach to the 30x30 target reflects a deliberate balance between high-level ambition and operational feasibility. While some have advocated for ambitious targets to motivate resource mobilisation and accelerate progress, others have emphasised the need to consider current available resources and the pace of declarations to ensure that the target is realistic and implementable.

The current baseline of protected and conserved areas stands at approximately 17% of terrestrial land area, comprising around 10% in formal protected areas, and an estimated 7% in conservation areas and Other Effective area-based Conservation Measures (OECMs). This contains the important proviso that while there are likely large areas that can already be counted as OECMs, such as wildlife ranches, these have yet to be properly defined, verified or measured, and the estimate remains preliminary.

Several scenarios were explored to inform target setting, including both funded and unfunded contributions from government and non-government organisations. The decision was made to align the national target with the long-term targets identified in the current National Protected Area Expansion Strategy (NPAES, DEA, 2018). The long-term target of the NPAES 2018 amounts to 21% of South Africa's terrestrial mainland area (Table 5). It reflects commitments for which funded implementation pathways already exist across government and non-government partners. Achieving the 30% global target will require additional resource mobilisation, for which a dedicated activity is included in the action plan.

Table 5. Long-term terrestrial protected area expansion target as per the National Protected Areas Expansion Strategy 2018 (DFFE, 2018).

	Area (km²)	**Percentage**	**Source**
Total area of South Africa	1 220 813		Stats SA (2025)
Terrestrial protected areas (current)	121 397	10%	SANBI (2025)
Terrestrial conservation areas (current)	62 031	5%	SANBI (2025)
Terrestrial OECMs (current estimate)	20 000	2%	Estimate
Total current	**203 428**	**17%**	
NPAES 20-year target (2028)	202 604	17%	DFFE (2018)
NPAES long-term target	257 671	21%	DFFE (2018)
Long-term shortfall	**54 243**	**4%**	

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It is, however, recognised that the NPAES 2018 was developed under the previous Aichi targets. A revision of the NPAES is a necessary activity of this NBSAP, to align with the updated KMGBF targets, include diverse mechanisms for expansion of protected and conserved areas (such as OECMs), and consider different land tenure systems. Furthermore, because South Africa is a mega-diverse country that is experiencing intense global change, the expansion and management of the conservation estate must also consider climate change, as per the requirements of the Biodiversity and Ecosystems Sector Climate Change Response Strategy (see **Ecological infrastructure and climate resilience**).

Crucially, the continued scaling of the biodiversity stewardship mechanism is central to achieving these targets. Over the past twenty years, biodiversity stewardship has secured approximately 2.76 million hectares across 469 sites nationwide, representing around 90% of all terrestrial protected area expansion achieved since the promulgation of the Protected Areas Act. These gains have been achieved at a fraction of the cost of traditional land acquisition approaches, with stewardship delivering conservation outcomes at between 6% and 25% of the cost of state-owned protected areas (World Bank, 2025). Recognising and reporting OECMs will also be essential, both to reflect the full spectrum of conservation contributions already being delivered and to help close the gap between existing commitments and the 30% target. South Africa's approach to the 30x30 target will also include the strategic use of Transfrontier Conservation Areas (TFCAs) to enhance ecological connectivity across national boundaries.

In the marine realm, the current baseline stands at approximately 14.7% of total marine conservation as marine protected areas, made up of 5.3% of the maritime domain (Exclusive Economic Zone and territorial waters) around mainland South Africa and 35.8% of the maritime domain around the Prince Edward Islands (PEI). To meet a 20% overall target for marine protection, approximately 81 900 km^2 must be added to marine protected or conserved areas with emphasis on expansion in the mainland maritime domain, which is underrepresented in marine protection coverage (whereas marine protection at the PEIs already exceeds 30%).

5.3.2 Theory of change

The updated and implemented National Protected Areas Expansion Strategy (NPAES) is the primary instrument guiding the achievement of both area-based and representation targets, ensuring that expansion priorities are strategically identified and pursued. Defining and recognising OECMs is equally critical, as this establishes a credible baseline and enables the inclusion of significant additional areas toward meeting the targets. Furthermore, optimising the effectiveness of TFCA governance and reporting ensures that protected area expansion results in well-connected transboundary landscapes that deliver climate resilience and equitable community benefits. Strengthening post-declaration support for biodiversity stewardship sites is also essential, ensuring that landowners and communities receive ongoing management assistance. Additional resources are mobilised by both government and non-governmental actors to accelerate expansion beyond what is currently funded to meet the 30% by 2030 global target. Supporting activities strengthen the system by improving the Protected and Conserved Areas Database (PACA), developing ways to measure NGO contributions, and ensuring that different types of protected areas, conservation areas,

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and OECMs are consistently recorded. Continued measurement and consolidated reporting of management effectiveness is also required. These monitoring and reporting improvements provide the evidence base for tracking expansion. Further work is needed to better understand what equitable governance entails, how it is measured, and how it is implemented in practice. Together, these activities drive measurable progress, with areas added, improved representation of species and ecosystems, stronger management effectiveness scores, and approved management plans, which in turn demonstrate achievement of the national target to expand a representative, effectively managed, and equitably governed system of protected and conserved areas by 2035.

IF the National Protected Area Expansion Strategy is implemented, and inclusive mechanisms like biodiversity stewardship and Other Effective Area-Based Conservation Measures (OECMs) are recognised, resourced and supported,

THEN a fully representative, effectively managed and equitably governed system of protected and conserved areas will be secured across land and sea, delivering ecological connectivity, climate resilience and tangible community benefits,

BECAUSE partnering with private and communal landowners and rights holders, traditional authorities, maritime sectors and non-governmental organisations ensures that the country's most vital ecosystems are protected in a financially viable and socially inclusive manner.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, expand a representative system of protected and conserved areas, covering 21% of land-based (terrestrial and freshwater) areas[3], and 20% of marine areas, ensuring they are effectively	*By 2035, [5 424 300] hectares are* added to the land-based (terrestrial and freshwater) protected and conserved area estate, including through OECMs.	3	3.1	Protected and Conserved Areas Database (PACA)
	By 2035, 81 900 km² is added to the marine and coastal conservation area estate.	3	3.1	Protected and Conserved Areas Database (PACA)

[3] In our pursuit to scale up national ambition towards alignment with the global target of 30% by 2030, and to accelerate expansion beyond what is currently funded, government, civil society and private sector, further commit to securing an additional 10,4 million hectares of land-based protected and conserved areas, conditional on mobilising and aligning resources. This effort will encompass all elements including the declaration and post-declaration support.

- **Total land surface area of SA**: 122 081 300 Ha
- **Current baseline, 17%**: 20 342 800 Ha
- **30% Target**: 36 624 390 Ha (need additional 15 870 569 Ha, ~16M Ha)
- **Current target, 21%**: 5 424 300 Ha
- **Difference**: 10 446 269 Ha

managed, equitably governed, and integrated into broader ecological and social land-, water- and seascapes.	*By 2035, improve by 5% the* representation of ecosystems in protected areas.	3	-	National Biodiversity Assessment
	By 2035, 100% of declared land-based and marine protected areas ~~declared by xxxx,~~ and recognised OECMs and conservation areas have approved management plans.	3	-	Requires consolidated reporting
	By 2035, 85% of state-managed protected areas achieving a METT-SA/R-METT score of 67% or higher.	3	-	Requires consolidated reporting

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Actions	Responsibility
Develop and implement norms and standards to provide a definition and verification mechanisms for Other Effective area-Based Conservation Measures (OECMs).	**Lead:** DFFE **Support:** SANBI, iSimangaliso, SANParks, NGOs, Civil society
Update and implement the National Protected Area Expansion Strategy in support of achieving the KMGBF targets to identify priority areas for expansion of protected and conserved areas to improve representation across all realms, inclusive of all expansion mechanisms and land tenure types.	**Lead:** DFFE
Strengthen governance mechanisms for Transfrontier Conservation Areas (TFCAs), World Heritage Sites and Biosphere Reserves and improve reporting on their contribution to national targets, to support ecological connectivity, climate resilience and benefits for communities across the region.	**Lead:** DFFE **Support:** SANBI, SANParks, provincial conservation authorities, TFCA structures
Strengthen equitable governance of protected and conserved areas by increasing and improving participation of local communities, traditional authorities, and civil society in planning, initiation, declaration, boundary delimitation and management processes, including exploring context-appropriate ways to better measure involvement and participation.	**Lead:** DFFE, People and Parks **Support:** Protected area authorities, NGOs, SANBI
Strengthen post-declaration and post-recognition support for all sites by ensuring adequate extension capacity, follow-up engagements and incentives to ensure landowners and local communities receive ongoing technical and management assistance.	**Lead:** DFFE **Support:** Provincial conservation authorities
Strengthen the Protected and Conserved Areas Database to improve accuracy and provide regular statistics on the total area, additions, and types of both protected and conserved areas, as well as including a practical system for recording and reporting the contributions of non-governmental organisations.	**Lead:** DFFE **Support:** NGO collaboration, SANBI
Establish regular, consolidated national reporting on Management Effectiveness Tracking Tool (METT-SA) scores for all state-managed protected areas, and Ramsar sites and inland waters.	**Lead:** DFFE
Review and streamline the administrative and legal procedures for the declaration of protected areas and recognition of OECMs to improve efficiency.	**Lead:** DFFE **Support:** Provincial conservation authorities
Implement the NPAES and OECM Norms and Standards through declaration of new protected areas and evaluation of areas for potential OECM recognition	

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5.4 Species conservation

5.4.1 Rationale

South Africa's approach to species conservation is anchored in its status as a megadiverse nation, home to an estimated 67 000 animal species and more than 20 400 plant species, two-thirds of which are endemic. Thus, species conservation is maintained as a distinct thematic area, aligned with Target 4 of the KMGBF and focusing on urgent management actions to halt extinctions and support recovery. South Africa has an established Threatened Species Programme, which has produced comprehensive Red List assessments across multiple taxonomic groups, including the entire flora. Assessments for plants, mammals, reptiles, birds, spiders, butterflies, amphibians, freshwater fishes, freshwater crabs, fairy shrimps, dragonflies, sharks and rays, and seabreams provide a robust scientific baseline to implement conservation actions and track extinction risk, population trends and recovery. Human-wildlife conflict is addressed as a separate thematic area due to its distinct policy tools, mitigation approaches and socio-economic dimensions (see **Human-wildlife coexistence**). The species conservation thematic area therefore centres on maintaining and improving the status of species, and their genetic diversity through targeted recovery actions. Addressing the illegal wildlife trade is critical to species conservation; while it sits under the sustainable use theme, it directly mitigates a primary driver of extinction. (see **Sustainable use and the biodiversity economy**).

5.4.2 Theory of change

By maintaining robust data collection, monitoring and Red List assessments, South Africa creates the scientific evidence base required to implement targeted recovery plans and integrate species representation into the National Protected Area Expansion Strategy. These activities directly drive improvements in the Red List Index and protection level indicators by securing critical habitats and stabilising declining populations. Simultaneously, expanding DNA-based monitoring and ex-situ biobanking for indigenous and used species ensures that genetic diversity is maintained and agricultural resources are secured. Collectively, these results lead to reduced extinction risk, species recovery, strengthened genetic diversity and improved protection of South Africa's rich species diversity by 2035.

IF robust species data and Red List assessments are used to implement targeted species recovery plans, DNA-based monitoring tracks population trends, and compliance measures reduce illegal wildlife activities,

THEN declining populations will stabilise, the risk of extinctions will be reduced, and South Africa's unique plant and animal life will be conserved into the future,

BECAUSE evidence-driven action allows efforts to be directed to most threatened species, while the integration of habitat protection, biobanking and legal enforcement addresses the primary drivers of biodiversity loss.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, prevent new extinctions, support the recovery of priority threatened species, maintaining their genetic diversity, and improve species protection level by 10%.	*By 2035, stable or improving* Red List Index for assessed taxonomic groups.	4	A.3	National Biodiversity Assessment
	By 2035, no extinctions and stable or improving trends for species under recovery according to National Red Lists.	4	-	National Biodiversity Assessment
	By 2035, improve by 10% species protection level across all realms through effective representation in protected areas, in particular range restricted or threatened species.	3	-	National Biodiversity Assessment
	By 2035, maintain or increase the proportion of populations within assessed species that meet an effective population size of Ne ≥ 500.	4	A.4	National Biodiversity Assessment
	By 2035, increase in the number of threatened species being monitored using DNA-based methods to maintain genetic variability.	4	-	National Biodiversity Assessment
	By 2035, maintain or improve the status of priority Evolutionarily Distinct and Globally Endangered (EDGE) species within South Africa.	4	-	National Biodiversity Assessment
	By 2035, maintain or improve the populations maintained (PM) indicator for assessed species.	4	-	National Biodiversity Assessment
	By 2035, increase the number of plant and animal genetic resources used for traditional medicine, food and agriculture secured in ex situ facilities.	4	-	SANBI (Millennium Seed Bank); DFFE & ARC (Gene Banks)

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Actions	Responsibility
Maintain, expand and coordinate species data collection, monitoring, and Red List assessments to ensure robust, up-to-date species information feeds into regular National Biodiversity Assessments and international reporting requirements.	**Lead:** SANBI **Support:** Museums, herbaria, research institutions, citizen science platforms
Develop, cost and implement comprehensive recovery plans for priority threatened species using a one-plan approach that integrates in-situ and ex-situ efforts, and in accordance with recognised international guidelines for reintroductions and conservation translocations.	**Lead:** SANBI Threatened Species Programme; Centre for Species Survival; IUCN National Species Specialist Group
Incorporate species representation and rewilding targets into the National Protected Area Expansion Strategy to improve protection levels for species.	**Lead:** DFFE **Support:** Provincial conservation authorities
Implement targeted conservation actions to increase the protection of indigenous species, particularly range-restricted and threatened species, ensuring inclusion of genetically distinct populations where possible.	**Lead:** DFFE, SANBI **Support:** Provincial conservation authorities, NGOs
Expand genetic assessments and DNA-based monitoring across a broader sample of indigenous, threatened species and priority crop wild relatives and domestic landraces, to track genetic diversity.	**Lead:** SANBI **Support:** DSTI, research institutions
Increase the collection and security of indigenous plant and animal genetic resources for aquatic and terrestrial food systems, medicine, and conservation in biobanks and seed banks.	**Lead:** SANBI Millenium Seed Bank; ARC (genebanks) **Support**: DFFE Fisheries Management (Aquaculture); SAIAB
Address capacity and funding constraints for species recovery by drawing on the technical expertise and coordination support of the Centre for Species Survival.	**Lead:** Centre for Species Survival, SANBI **Support:** NGOs
Strengthen and resource Compliance Monitoring and Enforcement units to effectively monitor compliance with Threatened or Protected Species (TOPS and CITES – terrestrial and marine) permit conditions, provincial legislation, by-laws and prosecute illegal activities.	**Lead:** DFFE **Support:** Provinces, BMA

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5.5 Human-wildlife coexistence

5.5.1 Rationale

Human-wildlife coexistence is maintained as a distinct thematic area due to its unique socio-economic dimensions, which require policy tools and management approaches different from those used in species conservation. These interactions encompass a range of impacts, including physical (attacks or property damage), economic (crop raids or livestock loss), and health (zoonotic risk) dimensions, as well as retaliatory actions that negatively impact wildlife. Efforts to monitor and mitigate human-wildlife conflict in South Africa remain uneven and fragmented, often concentrated around specific high-profile species such as sharks, baboons, seals, elephants and large predators. This thematic area therefore focuses on improving the consistency and coordination of human-wildlife management, to identify conflict-prone species and areas, strengthening national reporting, and supporting more effective mitigation and coexistence.

5.5.2 Theory of change

Effective management of human-wildlife conflict requires transitioning from fragmented responses to a coordinated national system capable of identifying where conflict occurs, which species are involved, and which actions reduce incidents. By collecting and consolidating incident data, South Africa establishes the evidence base needed to identify areas of recurrent conflict and conflict-prone species. Building on this baseline, the development of a participatory National Human-Wildlife Coexistence Strategy strengthens coordination between government, NGOs and affected stakeholders, and guides the implementation of appropriate mitigation measures. The strategy adopts an integrated landscape and seascape approach that encompasses diverse contexts, including urban areas and the marine environment, ensuring a comprehensive and coordinated national response to coexistence across all realms. As these measures take effect and coordination improves, the frequency of negative interactions decreases. Progress across these indicators collectively contributes to managing human-wildlife interactions in a way that minimises conflict and promotes coexistence.

IF baseline data on human-wildlife interactions is consolidated and a participatory National Human-Wildlife Coexistence Strategy is implemented across terrestrial, freshwater and marine environments,

THEN the frequency of negative interactions will steadily decrease, minimising conflict and reducing the physical, economic and health impacts on local communities, promoting coexistence between people and wildlife,

BECAUSE replacing fragmented, reactive responses with a coordinated national system allows government and affected stakeholders to direct appropriate, context-specific mitigation measures exactly where they are needed most.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, human-wildlife interactions are effectively managed to minimise conflict and promote coexistence to reduce impacts on both communities and species.	*By 2028, identify* areas of recurrent human-wildlife conflict and the species involved.	4	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, reduce the number of reported human-wildlife conflict incidents per year by identified species.	4	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, increase in the number of mitigation measures implemented in areas of recurrent conflict with identified species.	4	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources

Actions	Responsibility
Collect and consolidate baseline data on human-wildlife conflicts to identify and map areas of recurrent human-wildlife conflict and the species involved for terrestrial, freshwater and marine species.	**Lead:** DFFE **Support:** SANBI, provincial conservation authorities
Capacitate and resource provincial authorities to respond to HWC incidents within 24 hrs	**Lead:** Provincial authorities **Support:** Traditional Authorities
Develop and implement a National Human-Wildlife Coexistence Strategy that identifies, in a participatory manner, effective actions to prevent and manage human-wildlife conflict, consolidates numerous fragmented, and species-specific policies and strengthens coordination, to empower government, NGOs and affected stakeholders to respond appropriately to human-wildlife interactions.	**Lead:** DFFE
Establish and maintain an operational reporting platform to record the number of incidents per year.	**Lead:** DFFE

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5.6 Sustainable use and the biodiversity economy

5.6.1 Rationale

This thematic area clusters global targets for the sustainable harvesting and trade of wild species (T5), the management of wild species to benefit people (T9), and the promotion of sustainable consumption (T16) to provide a coherent national implementation pathway, and the promotion of policy actions to ensure sustainable patterns of production including provision of information needed to consumers to promote sustainable consumption patterns and reporting on compliance with access and benefit-sharing regulations and measures T15 (b)(c) . The grouping of these targets under the thematic area of sustainable use and the biodiversity economy reflects South Africa's long-standing commitment to ensuring that biodiversity contributes to livelihoods and the national economy while maintaining custodial care of species and ecosystems. It recognises that when people derive tangible benefits from biodiversity, this fosters a stronger commitment to safeguarding species and ecosystems. South Africa has undertaken extensive work to conceptualise and operationalise the biodiversity economy, beginning with the 2015 National Biodiversity Economy Strategy and Biodiversity Economy Phakisa in 2016, culminating in the updated National Biodiversity Economy Strategy, which provides the overarching framework for this thematic area. The grouping reflects an integrated value chain: from ensuring the sustainable and legal supply of utilised indigenous species and ecosystems, to ensuring that such use creates jobs, supports rural livelihoods and delivers equitable benefits, through to encouraging consumers to choose biodiversity-friendly products that reinforce market demand. . .Myles Mander et al 2006, indicated that the trade in traditional medicines in South Africa is estimated to be worth R2.9 billion per year, with over 27,7 million consumers, and it is estimated that medicinal plants and animals underpin the work of some 200,000 Traditional Health Practitioners. On the other hand, the marine environment provides South Africans with food and livelihoods by providing a basis for fishing (commercial, subsistence or recreational). Accordingly, the consumptive use of marine, coastal, estuarine and freshwater resources, including through aquaculture is valued at R17.6 billion with direct employment estimated at 28 000 and a further 80 000 indirect jobs downstream the value chain. According to STATSSA 2022, the biodiversity-based tourism's direct gross domestic product (GDP) was R27,7 billion, driving 13,3% of economic activity within the broader tourism sector which contributed R208 billion to South Africa's economy. In other words, for every R100 generated by the tourism sector, R13,30 was from biodiversity-based tourism. These biodiversity-based tourism uses include, amongst others, ecotourism, hunting, fishing, harvesting, boating, hiking, as well as cultural and spiritual uses, and their associated value chains. At the SADC region, the contribution of the wildlife-based economy as measured in terms of the Gross was estimated to be approximately USD 33,9 billion in 2018 and USD 31,5 billion in 2019 (or 4.6 percent of total GDP for SADC). This contribution was dominated by South Africa, which was estimated to have contributed USD 9,5 billion, followed by Democratic Republic of Congo (USD 7,7 billion), Tanzania (USD 3 billion), Madagascar (USD 2,2 billion) and Angola (USD 2,1 billion). This thematic area emphasises that sustainable use operates within a broader economic system that must be well-regulated, equitable and based on the long-term sustainability of South Africa's biodiversity. As such, sustainable use is a central pillar of the White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity, with a strong focus on transformation, equity and respect for customary use, to ensure that rural communities receive meaningful benefits from biodiversity

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5.6.2 Theory of change

Implementing the National Biodiversity Economy Strategy provides the primary mechanism for expanding and transforming biodiversity-based value chains, with inclusive participation and enterprise development ensuring that benefits flow to rural communities and designated groups. These activities directly influence indicators related to increased benefits, greater participation, and growth in the GDP contribution of the biodiversity economy. In parallel, fisheries-specific actions include applying an ecosystem approach to fisheries management, reducing bycatch, transitioning recreational fishing practices, and enabling customary and small-scale fishers. These actions drive improvements in the sustainability of fish stocks and support the stability of traditional occupations. A third pathway focuses on legality and safe trade by strengthening permitting, compliance monitoring, traceability systems, and the work of the Scientific Authority. Implementing the National Integrated Strategy to Combat Wildlife Trafficking reduces illegal trade by boosting law enforcement, thereby improving the integrity of legal trade. Together, these actions ensure that the biodiversity economy becomes more inclusive and economically viable, while not depleting the biological foundation, thereby achieving the national target for 2035.

IF biodiversity value chains are expanded through inclusive enterprise development, an ecosystem approach is applied to fisheries management, and the trade in wild species is effectively regulated,

THEN a transformed and resilient biodiversity economy will emerge that creates jobs and enables people to use natural resources sustainably without depleting them,

BECAUSE when communities can legally and sustainably derive tangible benefits from biological resources it fosters a stronger commitment to safeguarding those species and ecosystems over the long term.

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National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, achieve a transformed, inclusive and viable biodiversity economy that ensures sustainable management, harvest and use of wild species,safe and legal trade, while protecting and encouraging customary sustainable use by local communities.	*By 2035, increase the* proportion of fish stocks of exploited marine fisheries resources to within biologically sustainable levels.	5	5.1	Status of the South African Marine Fisheries Resources report
	By 2035, improve the status and trends of inland fisheries resources.	-	-	Not yet measured, possibly the Inland Fisheries Threat Indicator.
	By 2035, decrease illegal trade by CITES species classification.	5	KMGBF complementary indicator	Indicator still under development
	By 2035, increase benefits from the sustainable use of wild species.	9	9.1	KMGBF headline indicator still under development.
	By 2035, stable percentage of population in traditional occupations.	9	9.2	KMGBF headline indicator still under development.
	By 2035, increase by 10% the GDP contribution from the biodiversity economy.	9	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, increase the participation of local communities, women, youth, and Previously Disadvantaged Individuals in biodiversity-based enterprises and in the formal co-management of natural resources and protected and conserved areas.	9	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, increase the proportion of biodiversity economy sub-sectors for which sustainable certification standards are established and operational.	16	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources

Actions	Responsibility
Effectively implement the National Biodiversity Economy Strategy (NBES) to scale up the wildlife, bioprospecting and marine and freshwater resources value chains.	**Lead:** DFFE **Support:** SANBI, provinces, municipalities, private sector
Provide targeted enterprise development, market access, and financing for biodiversity-based small, medium and micro enterprises (SMMEs), with a focus on enabling designated groups (previously disadvantaged individuals, youth, women, and people with disabilities) to become owners and operators of their own businesses within the biodiversity economy value chain.	**Lead:** DFFE, DSBD, DTIC **Support:** People & Parks, SANParks, provinces, NGOs
Identify, develop, verify and promote the uptake of sustainability standards and certification schemes for biodiversity economy value chains.	**Lead:** DFFE **Support:** SANBI, private sector
Adopt an ecosystem-based approach to fisheries management across marine, estuarine and freshwater systems, including the development of a National By-catch Reduction Strategy, the transition of recreational fishing toward a catch-and-release policy, and redirecting efforts towards establishing legal mechanisms to enable Indigenous Peoples and Local Communities to enter the existing small-scale fisheries sector.	**Lead:** DFFE **Support:** Provincial conservation authorities; SANBI; research institutions; private sector; NGOs
Effectively implement the National Integrated Strategy to Combat Wildlife Trafficking (NISCWT).	**Lead:** SAPS **Support:** DFFE, provincial conservation authorities
Maintain an effective Scientific Authority to provide scientific oversight for species in trade, specifically through the regular publication of Non-Detriment Findings (NDFs).	**Lead:** SANBI **Support:** DFFE, research institutions
Strengthen permitting, compliance monitoring, and traceability systems for the use and trade of indigenous species.	**Lead:** DFFE **Support:** Provincial conservation authorities
Ensure sustainable use practices consider animal wellbeing and humane practices to give effect to a duty of care.	**Lead:** DFFE **Support:** Welfare organisations, industry bodies
Establish baselines for all currently unmeasured indicators, especially economic indicators, including through Natural Capital Accounting, to enable tracking toward the 2035 targets.	**Lead:** SANBI, Stats SA **Support:** DFFE, National Treasury

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5.7 Pollution and waste management

5.7.1 Rationale

The previous NBSAP did not address pollution directly, resulting in these issues being subsumed under broader terrestrial or ecosystem priorities and leaving critical pressures, particularly on freshwater, insufficiently managed. Establishing a dedicated thematic area for pollution and waste, aligned with KMGBF Target 7, elevates the profile of these threats. Pollution control is also reflected as a priority by the Presidency, with actions directed towards climate change mitigation, air and water quality, reduction of marine pollution and strengthened waste management as essential components of South Africa's national development agenda. Many natural systems are no longer able to absorb or remediate the scale of pollution being generated. Specific pressures, such as mining legacy waste, coal-fired air pollution, industrial effluents, agricultural nutrient runoff, hazardous substances, illegal dumping and municipal wastewater failures require targeted, sector-specific interventions. Furthermore, marginalised, low-income and previously disadvantaged communities continue to disproportionately bear the negative health and environmental impacts of pollution (UN General Assembly, 2024). Thus, remediation of contamination is a prerequisite to achieve restoration and rehabilitation of these ecosystems to recover their ecological integrity and functioning (see **Restoration and invasive alien species**). Other impacts of pollution, such as the direct and indirect effects of pesticides on biodiversity, particularly for insects and other pollinators, remain less documented for South Africa.

While South Africa is progressive in its Constitutional right to a healthy environment, this right is often undermined by a lack of enforcement, under-resourced authorities and fragmented responsibilities (UN General Assembly, 2024). A specific thematic focus helps to resolve long-standing institutional silos and unaligned mandates between the environmental, agriculture, water and mining sectors, and local government. Pollution and waste are governed by their own specialised policy and legal frameworks and require highly technical assessment, monitoring and response systems. However, effective pollution management also requires a human rights-based approach that ensures meaningful social participation, transparent access to information and accountability to affected communities. This thematic area supports the development of national pollutant baselines, strengthens accountability, and improves compliance monitoring and enforcement.

5.7.2 Theory of change

Achieving the national target depends largely on better coordination and consistent implementation of existing laws and strategies. Implementing the National Waste Management Strategy expands the circular economy, strengthens waste services and compliance, and increases waste diversion from landfill, reflected in improved waste-related indicators. Implementing the Integrated Water Quality Policy, the National Eutrophication Management Strategy and the National Water Resources Strategy 3 reduces nutrient loading and chemical runoff, driving down water pollution and the Index of Coastal Eutrophication Potential and pesticide concentrations, as baselines are established. Regular Green Drop monitoring tracks municipal wastewater treatment performance, while strengthened Compliance Monitoring and Enforcement units signal more consistent application of specialised pollution and waste legislation. Harmonising mandates across the environment,

water, mining and local government sectors resolves long-standing institutional silos and supports coordinated monitoring of the right indicators. Together, these actions lead to declining pollution loads across major sources, to thresholds not harmful to biodiversity and ecosystem services by 2035.

IF environmental laws and strategies are consistently implemented to advance a circular economy and deliver effective waste management services, and institutional mandates for environment, water, waste and mining are harmonised,

THEN pollution and harmful contaminants from major sources will decline to levels that are no longer harmful to people, biodiversity or ecosystem services,

BECAUSE coordinated mandates and meaningful community involvement strengthen compliance and enforcement, leading to greater diversion of solid waste from landfills, active monitoring of wastewater treatment, and accountability for polluters.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, reduce pollution from all sources to levels not harmful to biodiversity and ecosystem services by implementing the circular economy and managing solid waste, wastewater and effluent to reduce risks from microplastics, nutrient loading, pesticides, hazardous chemicals and other contaminants.	*By 2035, improve* ecological condition of rivers, wetlands and estuaries.	A		Present Ecological State data.
	By 2035, decrease in the Index of Coastal Eutrophication Potential.	7	7.1	Current SDG reporting based on phosphorous/ nitrogen loading for the West Coast, NBA uses remote sensing of chlorophyll-a as proxy
	By 2035, decrease in pesticide environment concentration and/or aggregated total applied toxicity.	7	7.2	Not currently measured as an aggregated index
	By 2035, prevent or ensure 50% of waste that cannot be prevented is diverted from landfill through improved separation at source.	7	-	Monitoring of National Waste Management Strategy
	By 2035, increase the percentage of wastewater treatment facilities achieving 'Green Drop' certification status.	7	-	DWS Green Drop reports
	By 2035, increase the number of administrative enforcement notices issued for pollution and waste.	7	-	National Environmental Compliance and Enforcement Report

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Action	Responsibility
Map and prioritise contaminated sites and legacy industrial or mining areas to guide the implementation of targeted remediation and restoration measures.	**Lead:** DFFE, DWS
Implement the four pillars of the National Waste Management Strategy for the circular economy, effective waste services, capacity and compliance.	**Lead:** DFFE **Support:** Provincial government, SALGA, NGOs
Revive the Integrated Water Quality Policy and National Eutrophication Management Strategy and implement together with the National Water Resources Strategy 3 to reduce nutrient loading and chemical runoff, and improve water quality data collection for effective monitoring.	**Lead:** DWS **Support:** DFFE, SALGA
Strengthen the regulation and permitting for all sources of marine pollution, including dumping at sea, ship-based discharges, and the enforcement of thresholds for industrial and wastewater discharges entering coastal waters.	**Lead:** DFFE Oceans and Coasts
Identify, consolidate and promote the application of national good practice for the remediation of sites contaminated by priority pollution sources, to restore ecosystem integrity and function.	**Lead:** DFFE, DWS **Support:** Research institutions
Strengthen and effectively resource Compliance Monitoring and Enforcement units for the 'brown' (pollution and waste) sector.	**Lead:** DFFE
Continue the regular monitoring and reporting of 'Green Drop' certification status for all municipal wastewater treatment facilities.	**Lead:** DWS
Harmonise mandates and coordination mechanisms between the environment, water, mining and local government sectors to resolve fragmented and overlapping jurisdictions.	**Lead:** DFFE, DWS
Establish mechanisms to ensure affected communities have transparent access to information and can meaningfully participate in pollution monitoring, reporting and remediation processes.	**Lead:** DFFE, DWS **Support:** Local government, NGOs, communities
Conduct assessments and research to determine the direct and indirect impacts of pesticide use in agricultural systems on pollinators, ecosystems and the economy to support implementation of the highly hazardous pesticide (HHP) policy, the management of the HHP registry, and the substitution of HHPs with safer alternatives.	**Lead:** DFFE, SANBI, DoA **Support:** ARC, research institutions
Establish methods and baselines for currently unmeasured indicators (including remote sensing and targeted ground truthing), particularly Index of Coastal Eutrophication Potential, pesticide environment concentration and/or aggregated total applied toxicity, to enable tracking toward 2035 targets.	**Lead:** DFFE, SANBI

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Capacitate Municipalities to manage all waste-related functions from engineering to enforcement of By-laws	**Lead:** COGTA **Support:** DFFE, DWS, SALGA
Regulate and enforce Mining Waste Management	**Lead:** DFFE **Support:** DMR

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5.8 Ecological infrastructure and climate resilience

5.8.1 Rationale

South Africa's ecological infrastructure is the basis for both climate resilience and the benefits people derive from nature. The same ecosystems that regulate water flows, reduce flood and drought risk, support livelihoods, protect infrastructure and sustain biodiversity are also the country's primary defence against climate change. This connection is especially evident in relation to water security, where healthy riparian areas, wetlands and strategic water source areas are essential for the reliable provision of clean water. Protecting these ecosystems directly supports the human right to safe drinking water, recognised in international human rights law and guaranteed in South Africa's Constitution. Actions such as clearing invasive alien plants or restoring degraded ecosystems simultaneously maintain ecological infrastructure, improve water security, and strengthen resilience to climate impacts for people and nature. Consequently, achieving climate resilience and maintaining ecological infrastructure relies heavily on the large-scale restoration of degraded ecosystems across all realms (see **Restoration and invasive alien species**) and managing biodiversity and ecosystems appropriately in response to global change.

Ecosystem-based Adaptation (EbA) and Nature-based Solutions are shared implementation tools for both climate change adaptation and maintaining ecological infrastructure. The target wording localises the international phrasing of 'nature's contributions to people' by adopting the well-established concept of ecological infrastructure, which refers to naturally functioning ecosystems that provide valuable services to nature, people and the economy. The White Paper explicitly links climate-resilient approaches to the restoration and maintenance of ecological infrastructure. Combining these targets into one thematic area ensures that climate change adaptation, and the associated mitigation co-benefits, are integrated with, rather than separated from, the management of biodiversity and ecological infrastructure. It is also important to include climate change adaptation (including EbA and the Sector Climate Change Strategy) within various mainstreaming tools (see **Mainstreaming biodiversity**). This is especially important for land-use, water-use and catchment-based planning tools, because the reliability of ecosystem services is dependent on optimising development decisions to balance water, food and settlements with functioning ecosystems that provide long-term resilience.

5.8.2 Theory of change

By integrating ecological infrastructure and Ecosystem-based Adaptation (EbA) into national policies and sectoral plans, South Africa creates a coordinated policy environment that emphasises the role of ecological infrastructure in climate resilience. This policy environment is put into practice through climate-fund projects that pilot approaches for scaling and replicating EbA and ecosystem-based disaster risk reduction. Implementing the EbA Strategy and the Biodiversity and Ecosystems Sector Climate Change Response Strategy provides the detailed actions needed to operationalise these resilience efforts. Protecting, restoring and maintaining strategic water source areas, and other climate-vulnerable areas and ecosystems, increases the proportion of these areas in natural or near-natural ecological condition and sustains the vital water-related ecosystem services they provide. Establishing monitoring systems for ocean acidification, climate-

vulnerable species and ecosystem service accounts enables adaptive management by providing timely evidence for decision-making. Together, these activities improve the ecological condition in the terrestrial, marine and freshwater realms, enhance ecosystem services, and build the resilience of ecosystems, species and communities.

IF ecological infrastructure and Ecosystem-based Adaptation are fully integrated into sectoral climate policies and actively implemented to protect and restore strategic water source areas and other vulnerable ecological infrastructure,
THEN communities, ecosystems and species will become more resilient to climate change, and the impacts of climate-related disasters like floods and droughts will be reduced,
BECAUSE naturally functioning ecosystems regulate water flows and buffer against extreme weather events, and securing this ecological infrastructure ensures the reliable delivery of water and other essential ecosystem services.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, ecosystem-based adaptation or nature-based solutions are implemented to restore and maintain ecological infrastructure, including strategic water source areas, to enhance the resilience of ecosystems, species and communities to climate change and ocean acidification, reducing climate-related disaster risks and generating other societal benefits.	*By 2035, increase the* number of active Ecosystem-based Adaptation projects being implemented and their budgets.	8	-	National Climate Change Response Database
	By 2035, increase the number of people benefiting from ecosystem-based disaster risk reduction.	8	-	Not measured, however data can be sourced through the Eco-DRR project
	By 2035, increase the number of climate-vulnerable species across all realms with improving or stable Red List status.	8	A.3	National Biodiversity Assessment
	By 2035, increase the number of Climate Change Sector Plans under the National Climate Change Adaptation Strategy which recognise ecological infrastructure and Ecosystem-based Adaptation as an intervention.	8	8.1	Climate Change Sector Plans
	By 2035, maintain or improve services provided by ecosystems.	11	B.1	Not yet measured, however data can be sourced through the SEEA ecosystem accounting
	By 2035, stable or improving percentage of terrestrial, marine and freshwater realms in natural or near natural ecological condition.	11	-	National Biodiversity Assessment

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	By 2035, increase the percentage area of strategic water source areas that are protected, maintained and restored.	11	-	Accounts for Strategic Water Source Areas

Actions	Responsibility
Conduct a review of alignment and overlap between relevant climate change adaptation and ecosystem-based adaptation policy instruments, including but not limited to the Nationally Determined Contributions, the National Climate Change Adaptation Strategy, the Strategy and Implementation Plan for Ecosystem-based Adaptation in South Africa, and the Biodiversity and Ecosystems Sector Climate Change Response Strategy, to consolidate and streamline the policy landscape.	**Lead:** DFFE **Support:** SANBI, intergovernmental climate change structures
Implement the updated Strategy and Implementation Plan for Ecosystem-based Adaptation in South Africa (2025-2034) and the Biodiversity and Ecosystems Sector Climate Change Response Strategy and its implementation plan.	**Lead:** DFFE, SANBI **Support:** intergovernmental climate change structures, SALGA, NGOs, private sector, research Institutions
Integrate the concept of ecological infrastructure and Ecosystem-based Adaptation into Climate Change Sector Plans required under the National Climate Change Adaptation Strategy.	**Lead:** DFFE, SANBI **Support:** SALGA and all other Sectors of the economy (e.g. Sectors identified in the Climate Change Act)
Strengthen and coordinate national research and monitoring systems to evaluate the effectiveness of climate adaptation and associated mitigation interventions, and generate the evidence required for adaptive management and the large-scale replication of nature-based solutions and ecosystem-based approaches.	**Lead:** SANBI, DFFE **Support:** SAEON, SANSA and other research institutions
Identify climate-vulnerable species to monitor using the Red List Index to establish baselines and identify opportunities for assisted colonisation or climate corridors to support species migration in water and on land.	**Lead:** SANBI, DFFE Support: Provincial Authorities
Integrate the role of ecological infrastructure within the National Disaster Management Framework by identifying areas where Ecosystem-based Disaster Risk Reduction (Eco-DRR) interventions can be implemented to mitigate risks to human settlements and infrastructure.	**Lead:** National Disaster Management Centre **Support:** DFFE, SANBI
Implement all climate change adaptation projects, including those approved within the Green Climate Fund and Adaptation Fund pipelines, to pilot EbA and Eco-DRR approaches and generate models for scaling and replication.	**Lead:** SANBI, project implementers **Support:** DFFE, DWS, DoA
Implement regular long-term ocean acidification monitoring to establish baselines, monitor trends, and inform adaptive management strategies.	**Lead:** DFFE, SAEON, SAIAB
Protect, restore and maintain ecosystems vulnerable to climate change using climate-smart approaches, including through Catchment Management Strategies to secure strategic water source areas, and through climate aligned Estuarine Management Plans to enhance coastal resilience.	**Lead:** CMAs, DFFE **Support:** SANBI, DWS
Develop ecosystem service accounts under Natural Capital Accounting to identify, understand, establish baselines and monitor trends in services provided by ecosystems.	**Lead:** SANBI, Stats SA
Liaise with neighbouring countries to mainstream climate change adaptation into shared watercourse agreements and the implementation of joint catchment management plans.	**Lead:** DWS, DFFE **Support:** International river commissions

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Develop and implement national Climate Change and Biodiversity awareness and education programme	**Lead:** DFFE **Support:** SALGA, NGOs, Presidential Climate Commission

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5.9 Access and benefit sharing

5.9.1 Rationale

Retaining KMGBF Target 13 as a standalone thematic area directly aligns with the White Paper, which positions equitable access and benefit sharing as a primary goal (Goal 3) of South Africa's biodiversity vision. This area is governed by a specialised legal regime, grounded in the international Nagoya Protocol, and domesticated nationally through the Biodiversity Act and the Biodiversity Access and Benefit Sharing (BABS) regulations. Maintaining this distinct thematic area provides for necessary regulatory reforms to include new requirements for Digital Sequence Information (DSI) and migrate to fully digital permitting systems. The thematic area also incorporates the implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture, which South Africa ratified in 2024, as well as related work on crop wild relatives, reflecting their explicit linkages to Goal 3 of the White Paper and their reliance on use of indigenous genetic resources. These commitments reinforce the protection of customary rights and the need for transformation, enabling clearer tracking of benefit flows to communities, farmers and traditional knowledge holders. The implementation of fair and equitable benefit-sharing relies on meaningful involvement and accessible knowledge. Consequently, the participatory requirements and protections for traditional knowledge mentioned here are supported by further specific activities under **Knowledge, participation and inclusion**.

Note on terminology: The KMGBF and Nagoya Protocol use the term 'traditional knowledge', while in South Africa the Indigenous Knowledge Act entrusts the Department of Science and Innovation to protect 'indigenous knowledge'. The White Paper defines both traditional and indigenous knowledge as "the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity".

5.9.2 Theory of change

Amendments to the Biodiversity Act and the BABS Regulations, particularly the inclusion of Digital Sequence Information (DSI), establish a clearer and more comprehensive legal framework for access and benefit sharing. Combined with standardised benefit-sharing models and guidelines, these reforms accelerate negotiations and contribute to a measurable increase in the number of active access and benefit sharing permits. The migration to a fully digital permitting system further improves efficiency, transparency and monitoring, enabling regulators to track compliance and benefit flows with greater accuracy. Technical and legal assistance for traditional knowledge holders, together with enhancements to the national recordable system for indigenous knowledge, ensures that communities participate meaningfully in negotiations and secure fairer benefit packages. Implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture and the National Strategic Action Plan for Crop Wild Relatives secures the genetic foundation of food security in genebanks and seedbanks. Together, these legal, institutional and operational actions strengthen the access and benefit sharing system so that increased compliance translates into a greater share of benefits reaching communities, farmers, traditional knowledge holders and conservation.

IF the legal framework is updated to include Digital Sequence Information, permitting is migrated to a fully digital system, traditional knowledge is formally recorded with legal support, and the genetic foundation for food security is secured,

THEN compliance among users of genetic resources will increase, leading to measurable growth of fair and equitable monetary and non-monetary benefits reaching communities, farmers, traditional knowledge holders and conservation,

BECAUSE streamlined administrative processes reduce transaction costs and delays for industry, while legally empowered communities can negotiate transparent, fair agreements that protect their rights.

National Target	**Target Indicators** (*change targeted*)	**KMGBF target**	**KMGBF headline indicator**	**Data source**
By 2035, increase fair and equitable benefit sharing by ensuring more users of genetic resources and traditional knowledge are compliant with access and benefit sharing requirements, resulting in measurable growth of monetary and non-monetary benefits for biodiversity conservation and for indigenous peoples, local communities and farmers as rights holders.	*By 2035, increase of 20% in* monetary benefits received in accordance with access and benefit sharing agreements.	13	C.1	Bioprospecting Fund (suspend account); Benefit Sharing Agreements
	By 2035, increase of 20% in non-monetary benefits received in accordance with access and benefit sharing agreements.	13	C.2	Benefit Sharing Agreements
	By 2035, increase of 50% in the number of active access and benefit sharing permits.	13	-	Permitting system
	By 2035, increase the number of indigenous genetic resources, including of crop wild relatives and indigenous landraces, secured in genebanks and seedbanks.	13	-	SANBI Millenium Seed Bank; ARC (genebanks), community seed banks
	By 2035, clearly specify conservation and sustainable use in benefit sharing agreements and document evidence of their implementation.	13		Benefit Sharing Agreements

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Actions	Responsibility
Amend Chapter 6 of the Biodiversity Act and the BABS Regulations to include requirements for Digital Sequence Information (DSI) and ensure alignment with the Nagoya Protocol while protecting the rights of traditional knowledge holders.	**Lead:** DFFE **Support:** DTIC, DSTI
Implement the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) by ensuring agricultural policies reflect farmers' rights, conserving plant genetic resources for food and agriculture, and promoting agroecological farming systems.	**Lead:** DoA **Support:** ARC
Update, publish and implement the National Strategic Action Plan for the Conservation and Sustainable Use of Crop Wild Relatives in South Africa.	**Lead:** DoA
Develop standardised benefit sharing agreements, sector-wide benefit-sharing models, guidelines for monetary and non-monetary benefits and training for regulators, communities and industry to speed up negotiations and reduce transaction costs for industry and communities.	**Lead:** DFFE **Support:** Industry organisations, SANBI
Establish a multi-sectoral national coordinating committee to strengthen coordination, accountability and implementation of Access and Benefit Sharing through the BioPANZA cluster of activities.	**Lead:** DFFE **Support:** DoA, DSTI, BioPANZA, DTIC
Finalise the migration to a 100% digital permitting system and develop a unified digital platform to streamline administrative procedures and improve monitoring and reporting.	**Lead:** DFFE
Develop and implement robust monitoring and evaluation to track active permits, the volume and value of monetary and non-monetary benefits distributed to ensure they are fair and equitable, and specific conservation outcomes linked to benefit-sharing agreements.	**Lead:** DFFE **Support:** SANBI, provincial authorities
Coordinate research and development activities to focus on specific species and take them to market readiness, including ensuring that research and development involving indigenous genetic resources complies with access and benefit sharing requirements.	**Lead:** DSTI **Support:** SANBI, research institutions
Enhance the National Indigenous Knowledge Management System (NIKMAS) to record and curate indigenous knowledge and support the protection of associated rights and interests of indigenous knowledge holders.	**Lead:** NIKSO, DSTI **Support:** DFFE
Strengthen compliance and enforcement for access and benefit sharing, including checks of permit holders, detection of unpermitted use, and coordinated enforcement with customs, research institutions and provincial authorities.	**Lead:** DFFE

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5.10 Biosafety and benefits of biotechnology

5.10.1 Rationale

This thematic area comprises two distinct but interconnected components, (1) enhancing implementation of the biosafety framework for Living Modified Organisms (LMOs), referred to as Genetically Modified Organisms (GMOs) within the South African regulatory context, and (2) the advancement of biotechnology coupled with the equitable sharing of its benefits.

Biosafety and biotechnology are retained as a distinct thematic area because these are governed by specific international and national legal frameworks, anchored in the Cartagena Protocol and implemented nationally through the Genetically Modified Organisms Act (GMO) (Act 15 of 1997) and its associated regulations. It involves a complex interplay of institutional mandates. The Department of Agriculture administers the GMO Act, including risk assessment and decision-making. The DFFE acts as the focal point for the Cartagena Protocol on Biosafety and administers the GMO provisions of the Biodiversity Act. Under the Biodiversity Act, SANBI is responsible for monitoring and reporting on environmental impacts of GMOs released into the environment. The Department of Science, Technology and Innovation (DSTI) implements the Bio-economy Strategy through coordination and investment in the National System of Innovation. The national biosafety system has functioned for three decades and already meets many of the criteria under the KMGBF indicators to demonstrate that the country has taken action towards biosafety. However, since biotechnology advances rapidly, it is necessary that the national biosafety system continues to keep pace with new scientific and technological developments. The regulation of benefit distribution in South Africa's biotechnology sector is governed by the Access and Benefit Sharing framework (see **Access and benefit sharing**) to ensure that the commercial and scientific gains from biotechnology, especially those derived from local biodiversity or traditional knowledge, are shared equitably.

As the previous NBSAP did not include a dedicated focus on biosafety, it is presented here as a standalone thematic area to give biosafety and the benefits of biotechnology the focussed attention needed to align with KMGBF Target 17. Stakeholders from government, research institutions, and industry emphasise the need to better integrate biosafety (reducing risks) with biotechnology (enhancing benefits) and incorporate aspects of equitable participation and access.

5.10.2 Theory of change

Updating legislation, guidelines and procedures, together with new tools for socio-economic and cost-benefit analysis, modernises the regulatory framework and ensures that risk assessment and decision-making remain aligned with evolving science. Capacity-building improves the quality of risk assessments, monitoring, testing and enforcement. An integrated digital biosafety information system increases transparency and efficiency by enabling electronic submissions and publishing an increased number of scientifically sound risk assessments to the Biosafety Clearing House. Assessing the biotechnology research landscape, promoting equitable participation, and mobilising resources expand opportunities for research, innovation and collaboration, which is reflected in an increase in

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biotechnology-related publications and product development partnerships. Integrating GMO monitoring with risk analysis, and assessing positive biodiversity impacts, strengthens evidence-based decision-making and ensures that monitoring results inform primary risk assessments. Given that the mandates for biotechnology and biosafety are distributed across government, the Department of Agriculture (DoA) and the Department of Science, Technology and Innovation (DSTI) remain the primary lead implementers for several activities in this thematic area. Consequently, achieving the national target relies on a robust whole-of-government approach with strong collaboration between the biodiversity sector and these sectoral departments. Together, these shifts in regulatory quality, transparency, participation and evidence enhance biosafety implementation and support equitable access to biotechnology benefits while minimising risks to biodiversity and human health. Integrating biotechnological innovation with equitable benefit sharing moves from a purely risk-averse biosafety system to deliver tangible socio-economic benefits.

IF legislation and guidelines are updated, capacity for robust risk assessment and monitoring is strengthened, and equitable participation in biotechnology and biosafety research is actively promoted,

THEN risks associated with genetically modified organisms will be effectively managed while enabling safe biotechnology innovation that delivers tangible socio-economic benefits,

BECAUSE a modernised regulatory framework supported by digital information systems allows decision-making to keep pace with rapidly evolving science, shifting the system from purely risk-averse to one that supports scientific innovation, transparent oversight and socio-economic growth.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, strengthen capacity and enhance implementation of biosafety measures for the safe transfer, handling, use and release of genetically modified organisms into the environment, and facilitate equitable participation in biotechnology research, development and access to its benefits, while minimising risks to biodiversity and human health.	*By 2035, increase the* number of scientifically sound risk assessments published on the Biosafety Clearing House.	17	-	Biosafety Clearing House
	By 2035, increase the number of collaborative biotechnology-related research and development partnerships and participation.	17	-	Bio-economy Strategy monitoring
	By 2035, increase in awareness of biosafety risks and biotechnology benefits.	17	-	Not currently measured, but data can be sourced through conducting national surveys

Actions	Responsibility
Review, update and implement policies, legislation, guidelines, or procedures related to Genetically Modified Organisms, to ensure effective governance and alignment with evolving science.	**Lead:** GMO Executive Council **Support:** SANBI, Biosafety South Africa, GMO Advisory Council
Develop guidelines and tools for socio-economic impact and cost-benefit analysis, supported by a synthesis of existing research on the direct and indirect benefits of biotechnology and biosafety adoption in South Africa.	**Lead:** DSTI **Support:** DTIC, Biosafety South Africa, SANBI, industry, research institutions
Maintain and strengthen human and institutional capacity for reviewing GMO applications, conducting risk assessments, detection and identification, monitoring environmental impacts, and ensuring compliance and enforcement.	**Lead:** DoA, DFFE **Support:** Biosafety South Africa, research institutions
Facilitate ease of access to up-to-date scientific, technical and legal biosafety information, including through full implementation of the national Biosafety Clearing House portal and exploring the possibility of an integrated digital biosafety information system that enables electronic submissions.	**Lead:** DoA, DFFE **Support:** SANBI, Biosafety South Africa
Conduct a comprehensive assessment of the biotechnology research landscape to address regulatory barriers and capacity needs, while also formalising a cooperative network of biosafety and biotechnology researchers to support evidence-based policy and equitable market access.	**Lead:** DSTI **Support:** Biosafety South Africa, research institutions, industry
Implement the Bio-economy Strategy, with a focus on bioprospecting, sustainable use of indigenous resources, and the distribution of benefits arising from biotechnology.	**Lead:** DSTI **Support:** DFFE, SANBI, DoA, ARC, CSIR
Monitor and report on the positive and negative impacts of GMOs and sustainable biotechnologies, including ensuring that evidence-based monitoring of environmental impacts directly informs primary risk assessments, risk management and decision-making.	**Lead:** SANBI, DFFE **Support:** DoA, ARC, research and academic institutions
Mobilise resources from government, donors, and the private sector to enable implementation of biosafety and biotechnology.	**Lead:** DSTI, DoA, DFFE **Support:** Biosafety South Africa, research institutions, industry

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5.11 Means of implementation

5.11.1 Rationale

The decision to integrate KMGBF Target 19 (resource mobilisation) and Target 20 (capacity building) reflects the interdependence of these two means of implementation. Human and institutional capacity cannot expand without predictable financing, and financial resources cannot be effectively applied without adequate human capacity. Biodiversity institutions face similar constraints across both targets: although nominal spending has increased, real expenditure has declined once inflation is considered, and high vacancy rates and a lack of qualified practitioners persist in key skills areas. Progress over the previous decade was insufficient for both resource mobilisation and skills development, with both areas hampered by the absence of reliable monitoring. An integrated target aligns with the emphasis in both the KMGBF and White Paper on securing the means of implementation. Combining these targets moves away from a heavy reliance on government budgets toward a whole-of-society approach, where international, private and civil society partners contribute to mobilising human and financial resources.

5.11.2 Theory of change

The successful implementation of the NBSAP is fundamentally contingent upon securing adequate, sustainable and predictable financing. As historical expenditures show a decline in the real purchasing power of biodiversity funding (BIOFIN, 2025), the update and implementation of the National Biodiversity Finance Plan (BFP) is essential to bridge funding gaps identified by the Financial Needs Assessment (FNA). This will be supported by the development of a biodiversity budget-tagging system that enables accurate tracking of public and private biodiversity expenditure. Together with formal partnerships, innovative finance instruments, long-term funding mechanisms and ring-fenced budgets, these actions expand both domestic and private investment in biodiversity. As these mechanisms take effect, they drive real increases in public and private biodiversity financing, reflected in the KMGBF financial indicators. In parallel, implementing the updated Biodiversity Human Capital Development Strategy (BHCDS), operating the Technical and Scientific Cooperation Centre, and strengthening local government capacity, directly address vacancy rates, skills shortages and transformation needs across the biodiversity sector. These actions lead to measurable reductions in vacancy rates and increases in the representation of designated groups. Together, strengthened financial flows and a transformed, suitably skilled workforce create the enabling conditions required to secure the human and financial resources that are the means for effective implementation of the NBSAP.

IF the National Biodiversity Finance Plan is implemented alongside innovative finance mechanisms, biodiversity budget tagging and private-sector partnerships, and institutional capacity is strengthened for both technical and governance skills,

THEN adequate financial resources and capacity will be secured to effectively conserve and manage biodiversity over the long term,

BECAUSE reducing reliance on shrinking public finances and diversified funding, together with deliberate efforts to build a capable and stable workforce, enables the effective implementation of the NBSAP.

National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, human and financial resources are secured and enhanced through mobilising financial resources from all sources and fostering a transformed, suitably skilled workforce to effectively implement the National Biodiversity Strategy and Action Plan.	*By 2035, increase in* domestic public funding in real terms for the conservation and sustainable use of biodiversity and ecosystems.	19	D.2	Not yet measured, requires development of a biodiversity expenditure tagging system
	By 2035, increase in private funding (domestic and international) in real terms for the conservation and sustainable use of biodiversity and ecosystems.	19	D.3	Not yet measured, requires development of a biodiversity expenditure tagging system
	By 2035, increase in revenue from piloted and scaled finance solutions.	19	-	BIOFIN
	By 2035, reduced vacancy rates in national, provincial and local government institutions related to biodiversity.	20	-	Annual reports
	By 2035, increase in the percentage of staff from designated groups in national, provincial and local government institutions related to biodiversity.	20	-	Annual reports

Actions	Responsibility
Update and implement the National Biodiversity Finance Plan to increase financial flows and reduce costs for conservation and management of biodiversity.	**Lead:** DFFE
Develop a biodiversity budget tagging system linked to National Treasury's green finance taxonomy to accurately track biodiversity expenditure in the public and private sectors.	**Lead:** National Treasury, DFFE **Support:** SANBI, Stats SA
Implement mechanisms to direct income from water charges toward the protection and restoration of priority ecological infrastructure.	**Lead:** DWS **Support:** Catchment Management Agencies, SANBI
Establish formal partnerships with financial institutions and the private sector to leverage private investment in biodiversity.	**Lead:** DFFE
Stimulate and scale up innovative finance instruments such as green bonds, biodiversity offsets and biodiversity credits, ensuring they include environmental and social safeguards.	**Lead:** DFFE, National Treasury **Support:** Finance institutions
Pursue sources of long-term funding beyond project funding cycles, specifically for ongoing management and follow up of initiatives started, such as post-declaration support for protected areas.	**Lead:** DFFE

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Actions	Responsibility
Establish ring-fenced budgets to fund community-led biodiversity initiatives directly within provincial and national allocations.	**Lead:** DFFE **Support:** SANParks, provincial conservation agencies
Implement the updated Biodiversity Human Capital Development Strategy (BHCDS) to achieve a transformed, suitably skilled workforce of leaders and professionals, beyond short-term, project-based employment.	**Lead:** SANBI **Support:** Green Matter
Strengthen the capacity of government institutions and relevant stakeholders in the human skills required for policy implementation, coordination, applied governance and conflict resolution, particularly focusing on human rights-based and inclusive approaches, to enable effective engagement with indigenous peoples and local communities.	**Lead:** DFFE **Support:** UNITAR, provincial conservation authorities, NGOs
Facilitate technology transfer and scientific cooperation, including through the operation of the Technical and Scientific Cooperation (TSC) Centre, to enhance technical capabilities, encourage innovation and foster joint research programmes.	**Lead:** SANBI **Support:** DFFE
Increase capacity in local government by increasing the number of qualified biodiversity practitioners, and providing accredited training for councillors and officials.	**Lead:** COGTA, SALGA **Support:** DFFE
Increase capacity in provincial government, specifically by increasing the number of qualified freshwater scientists.	**Lead:** Provincial government
Identify and establish feasible metrics to monitor and evaluate human and financial resource mobilisation and establish baselines.	**Lead:** DFFE, SANBI
Actively pursue effective resource mobilisation from non-state and private actors to accelerate expansion towards reaching 30% by 2035, potentially through innovative sources.	**Lead**: DFFE, National Treasury **Support:** NGO collaboration

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5.12 Knowledge, participation and inclusion

5.12.1 Rationale

Access to knowledge (T21), both scientific and traditional, is a prerequisite for meaningful involvement in biodiversity decision-making (T22), with stakeholders emphasising that participation is only possible when biodiversity information is available and indigenous and traditional knowledge are respected. These targets share a common emphasis on access, inclusion, and equity. KMGBF Target 22 ensures participation is not symbolic but is backed by rights to information, justice and decision-making power, while Target 23 guarantees that women and other marginalised groups are empowered to lead and benefit equitably. The grouping aligns with Goal 4 of the White Paper, which emphasises redress and transformation by facilitating the participation of designated groups and advancing the principle of Ubuntu. Together, these targets reflect South Africa's commitment to justice, transformation, and inclusivity in biodiversity conservation and sustainable use. This thematic grouping highlights that biodiversity outcomes depend on who participates, how knowledge is shared, and whether justice and equality are upheld. Ultimately, this thematic area seeks to move beyond consultation and passive beneficiaries, to more inclusive participation, co-management and ownership.

Note on terminology: The KMGBF uses the term 'traditional knowledge', while in South Africa the Indigenous Knowledge Act entrusts the Department of Science and Innovation to protect 'indigenous knowledge'. The White Paper defines both traditional and indigenous knowledge as "the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity".

5.12.2 Theory of change

By scaling up training for community monitors and biodiversity stewards, citizen science data contributes to an increase in biodiversity information, while multilingual support, diverse media formats and digital literacy ensure broader access to biodiversity information. Implementing Free, Prior and Informed Consent protocols ensures indigenous and traditional knowledge is ethically accessed and verified, reflected in the growth of recorded claims within NIKMAS. Improved access to justice provides communities with legal support, strengthening rights and tenure outcomes, while a national audit of marine systems generates evidence to begin a process of providing for the recognition of customary rights. Education initiatives, particularly those targeting youth and women, expand awareness and participation, tracked through surveys, visitor numbers, and outreach statistics. Targeted support for designated groups in the biodiversity economy increases representation in leadership roles and ownership of enterprises. Finally, systematic tracking of disaggregated participation data demonstrates equity in decision-making. Together, these activities drive measurable changes in indicators that, by 2035, achieve the national target of accessible knowledge and inclusive participation, advancing justice and transformation in biodiversity conservation and sustainable use.

IF biodiversity information is made widely accessible, protocols are applied to protect traditional knowledge, and communities are provided with legal support and meaningful representation in decision-making,

THEN people will be genuinely empowered to participate in and co-manage natural resources, advancing justice and transformation across the conservation sector,

BECAUSE access to knowledge, formal recognition of rights, and inclusive governance structures create the enabling conditions for meaningful participation rather than passive consultation.

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National Target	Target Indicators (*change targeted*)	KMGBF target	KMGBF headline indicator	Data source
By 2035, ensure access to scientific and traditional knowledge, with free, prior and informed consent of knowledge holders, to empower women, youth, previously disadvantaged individuals, persons with disabilities and indigenous peoples and local communities to participate meaningfully and access justice, thereby advancing transformation in biodiversity conservation and sustainable use.	*By 2035, increase in* biodiversity information for monitoring the global biodiversity framework.	21	21.1	Not yet measured, however SA is in a process of developing a National Biodiversity Monitoring System
	By 2035, increase the number of users accessing biodiversity data through recognised online platforms.	21	-	SANBI (Biodiversity Advisor, National Biodiversity Assessment); SANParks (BIMS), DFFE (EGIS) and other user statistics
	By 2035, increase the number of people participating in citizen science initiatives.	21	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, increase the number of biodiversity-related indigenous knowledge claims successfully recorded and verified within NIKMAS to inform conservation and sustainable use.	21	-	NIKMAS
	By 2035, increase in public environmental awareness in biodiversity.	21	-	Human Science Research Council citizens environmental awareness survey
	By 2035, increase in visitor numbers to national parks and national botanical and zoological gardens.	21	-	SANParks, SANBI annual reports
	By 2035, increase the number of youth participating in environmental education and outreach initiatives.	21	-	DFFE, SANParks, SANBI annual reports, current sources fragmented
	By 2035, 100% of formal public participation processes for biodiversity-related policies, plans or programmes publish disaggregated participation data to document meaningful representation.	22	-	Gazette documentation, public participation reports
	By 2035, increase the number of women, youth, previously disadvantaged individuals, and people with disabilities serving in leadership roles in biodiversity-related boards, councils, biodiversity committees or decision-making bodies.	22,23	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources
	By 2035, increase in number of formal co-management or biodiversity stewardship agreements with communities or designated groups.	22,23	-	The proposed indicator is not currently measured, although relevant data exist across fragmented sources

Actions	Responsibility
Scale up the training and resourcing of community monitors and biodiversity stewards to collect and interpret citizen science data for biodiversity and ecological infrastructure using mobile tools.	**Lead:** DFFE, SANBI, SANParks
Develop and implement Free, Prior and Informed Consent protocols to ensure the ethical access, verification, and use of indigenous and traditional knowledge, in line with the Protection, Promotion, Development and Management of Indigenous Knowledge Act (Act 6 of 2019).	**Lead:** DFFE, DSTI **Support:** NGOs
Establish accessible legal support systems, formal grievance mechanisms and remedy processes for indigenous peoples and local communities, to support them in negotiations related to land, water and resource use, and address matters of rights, tenure and traditional knowledge, including support for individuals and groups engaged in environmental and biodiversity protection.	**Lead:** DFFE **Support:** Universities, NGOs, Legal Aid (support)
Implement coordinated biodiversity awareness that highlights South Africa's status as a megadiverse nation and educates the public on why conserving biodiversity matters for people, helping to encourage a shared responsibility across the whole of society.	**Lead:** SANBI, DFFE
Deliver environmental education initiatives to youth, with a focus on gender equality in participation, including through visits to national parks, botanical and zoological gardens.	**Lead:** DFFE, SANBI, SANParks **Support:** NGOs
Conduct a national audit of rights and tenure in marine systems to better understand and support customary rights, access, tenure and recognition of customary law for small-scale fishers and coastal communities.	**Lead:** DFFE **Support:** DoA, research institutions
Enhance local access to, and input into, existing biodiversity information platforms by supporting communities, women, youth and people with disabilities with multilingual resources, digital literacy and diverse media engagement.	**Lead:** SANBI, DFFE
Strengthen standards for inclusive participation in the management and governance of biodiversity and natural resources by securing meaningful representation in multistakeholder bodies, co-management structures and formal public participation processes, while systematically tracking and publishing disaggregated participation data.	**Lead:** DFFE
Develop a national biodiversity indicators database and biodiversity monitoring system, to manage, curate and share key biodiversity statistics and indicator information, with an accessible dashboard to track NBSAP progress.	**Lead:** SANBI and partners

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6 Implementation going forward

This section provides a brief overview of South Africa's initial plans for strengthening implementation of the revised NBSAP and aligns to section C in the Kunming-Montreal Global Biodiversity Framework which outlines key considerations for the implementation of the KMGBF. It does not prescribe detailed processes or timelines, but highlights the early structures and approaches emerging from the lessons of the Early Action Support project. Together, these elements form the initial enabling conditions for a more coordinated and accountable implementation phase.

6.1 CoordinationNBSAP Accelerator Partnership: South Africa has joined the NBSAP Accelerator Partnership, a country-led global initiative designed to speed up implementation of NBSAPs. Membership provides access to coordinated technical and financial support, in-country facilitation, and cross-country learning. The Partnership acts as a neutral broker, helping countries translate priority needs into actionable plans and raising the political profile of biodiversity action. As part of this, South Africa will host an in-country facilitator funded by the Partnership**.**

NBSAP Facilitator: A dedicated NBSAP Facilitator has been appointed through the NBSAP Accelerator Partnership to support South Africa's transition into the implementation phase. This role will support coordination across thematic areas, help maintain momentum, and assist with the preparation of work plans, progress reports and implementation follow-up.

NBSAP coordination mechanisms: South Africa has taken a whole of government and whole of society approach in the development of the NBSAP and this will continue in the implementation of the NBSAP. To strengthen coherence across the biodiversity sector, the NBSAP Facilitator will support the DFFE to convene regular engagements on the NBSAP through a co-developed coordination mechanism. This mechanism will bring together government, public entities, research institutions, civil society, indigenous peoples and local communities, private-sector actors and other implementing partners to support inclusive participation, shared priorities, improved coordination and sustained momentum across the NBSAP's thematic areas.

6.2 Monitoring, Reporting and Evaluation

National Biodiversity Framework: The current NBF is for the period 2019-2024, and the Biodiversity Act stipulates that it should be reviewed at least once every five years. To domesticate the NBSAP more directly into South African legal and policy frameworks, the NBF should be reviewed and updated in line with the revised NBSAP. The updated NBF should identify medium-term priorities, support coordinated implementation across stakeholders, and help translate the NBSAP into a more operational national biodiversity management framework.

Implementation of the NBSAP will be monitored through a National biodiversity monitoring and indicator reporting system that links each NBSAP target to agreed indicators, baselines, data sources, data custodians, workflows and reporting products. The System will be strengthened through the National Monitoring Support Initiative and will provide dashboard-based evidence for work plans, progress reports, adaptive management, the revised National Biodiversity Framework and South Africa's Eighth National Report to the CBD. It will not replace existing source systems or scientific assessments but will provide

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the national reporting layer that curates approved indicator outputs, records metadata and evidence, highlights data gaps, and supports assessment of progress.

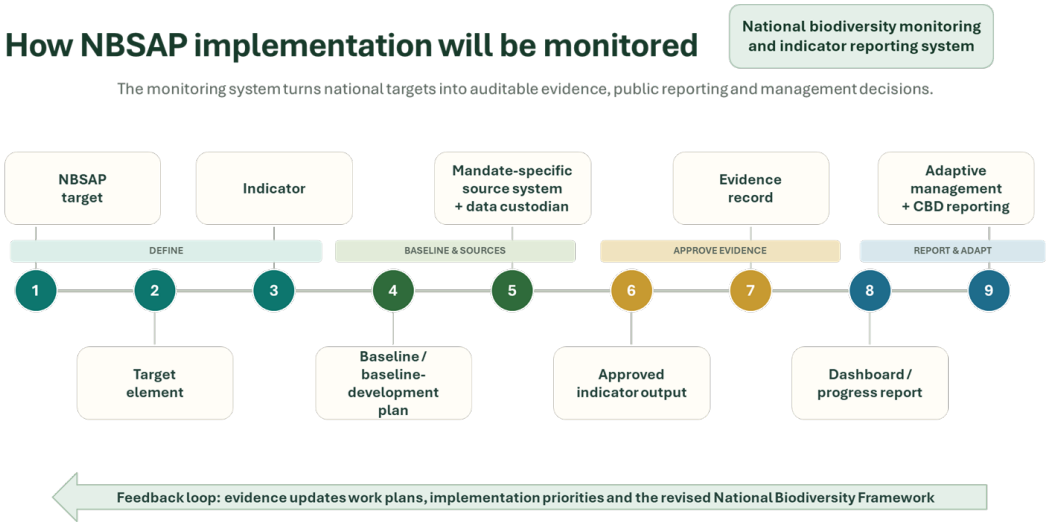


Figure 12. Monitoring architecture for NBSAP implementation. The National biodiversity monitoring and indicator reporting system will link NBSAP targets and target elements to agreed indicators, baselines, data sources, data custodians, approved indicator outputs, evidence records, dashboards and progress reports. This will support work planning, adaptive management, the revised National Biodiversity Framework and South Africa's national reporting to the Convention on Biological Diversity.

Work plans and reports: To maintain consistent oversight, the NBSAP Facilitator will support the development of regular work plans and progress reports. These will include implementation indicators and output indicators to establish interim milestones for tracking progress towards the longer-term NBSAP targets. This approach directly addresses previous concerns that the absence of interim milestones made long-term goals difficult to manage. Work plans and progress reports will help ensure that responsibilities are clear, implementation bottlenecks are identified early, and emerging challenges are addressed proactively.

National biodiversity monitoring and indicator reporting system: South Africa is developing a National biodiversity monitoring and indicator reporting system to address the systemic monitoring gaps identified in earlier NBSAPs. The System will use a federated model that links NBSAP targets and indicators to approved outputs from existing mandate-specific source systems, rather than replacing those systems or centralising all raw data. It will establish agreed indicator definitions, baselines, reporting periods, data custodians, metadata, caveats, confidence notes and workflows for tracking progress against national indicators, including alignment with the KMGBF headline indicators. Where indicators are not yet measured, or where source systems are not yet aligned to NBSAP reporting requirements, the System will record these as indicator-readiness gaps and support a phased process to strengthen data flows, custodianship and reporting arrangements.

Progress assessment: The System will support evidence-based progress assessment, but it will not automatically determine whether an NBSAP target has been achieved. Progress assessments will be based on approved indicator evidence and reviewed through appropriate technical and institutional

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processes. These assessments should distinguish between progress, mixed progress, insufficient evidence and decline or implementation concern. This will enable decision-makers to see where implementation is on track, where additional support is required, and where the evidence base remains too weak for a reliable assessment.

International and National Reporting: South Africa will continue to fulfil its national reporting obligations under the Convention on Biological Diversity, in accordance with relevant decisions and reporting requirements adopted by the Conference of the Parties. These reports will provide comprehensive assessments of progress in the implementation of the KMGBF and NBSAP (2026-2036). This NBSAP will serve as the Biodiversity Sector Plan for South Africa and the implementation of the NBSAP will be used to develop national reports to Cabinet. South Africa will work towards preparing its eighth National Report to the CBD in 2029.

6.3 Enabling Conditions

Financial Needs Assessment and Biodiversity Finance Plan :

A financial Needs Assessment (FNA) was undertaken in parallel with the development of the NBSAP to estimate resources required for implementation. the present FNA provides costing for 17 priority activities, out of a total of 125 activities, due to data and consultation constraints.. These costed activities amount to approximately R656.71 million over ten years (2026/27–2035/36). This represents a partial estimate and should not be interpreted as the total cost of NBSAP implementation. Significant high-cost areas such as large-scale ecological restoration, protected area expansion toward 30x30 targets, full species recovery implementation, biodiversity economy scaling, pollution control infrastructure, and ecosystem-based climate adaptation require further costing and stakeholder validation. The FNA also provides a quantitative foundation for the Biodiversity Finance Plan.

The Biodiversity Finance Plan (BFP) was developed post the Financial Needs Assessment to provide a strategic roadmap for mobilising and aligning financial resources to support the implementation of South Africa's biodiversity commitments. The Plan seeks to transform biodiversity finance from a fragmented and largely public-sector–driven system into a diversified financing architecture that mobilises public, private, and international resources in a coordinated and scalable manner. The BFP is anchored on four core objectives namely:

- Mobilising private and blended finance to complement public funding and scale investment in nature-positive activities.
- Introducing innovative market-based instruments that create economic incentives for conservation.
- Strengthening biodiversity integration within public financial management systems, including improved expenditure tracking and accountability.
- Enhancing governance, monitoring, and coordination mechanisms to improve the effectiveness and transparency of biodiversity finance

Finally, To achieve these objectives, the Biodiversity Finance Plan proposes a portfolio of mutually reinforcing finance solutions designed to close the biodiversity finance gap and strengthen South Africa's

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biodiversity finance architecture. Central to this strategy is the establishment of a National Biodiversity Blended Finance Facility, which would serve as a catalytic platform for mobilising and coordinating investment from public institutions, development finance partners, and private capital markets. The Facility would support investments in ecosystem restoration, biodiversity stewardship, ecological infrastructure, and biodiversity-based economic activities. This is complemented by a set of targeted instruments that include:

- Environmental Fiscal Benefits
- Biodiversity Budget Tagging
- Biodiversity Offsets Banking
- Thematic Bonds,
- Conservation Trust Funds
- Green finance mechanisms,
- Environmental tariffs and fees
- Crowdfunding and philanthropy platforms
- National Biodiversity Blended Finance Facility

By implementing the Biodiversity Finance Plan, South Africa can strengthen its biodiversity finance architecture, unlock new sources of investment, and align financial flows with national biodiversity and climate priorities. This approach will support the country's transition toward a nature-positive and climate-resilient economy, ensuring that South Africa's natural capital continues to generate economic and social benefits for current and future generations.

Capacity needs assessment required to implement the NBSAP

South Africa's capacity needs assessment for the implementation of the NBSAP highlights the need for strengthened technical, institutional, financial, and collaborative capacities across several biodiversity thematic areas. While the country demonstrates strong leadership in certain fields, particularly species assessments, there remains a significant need for enhanced coordination, sustainable financing, technological advancement, human resource development, and regional cooperation to effectively implement the Kunming-Montreal Global Biodiversity Framework targets at national scale.

In the area of terrestrial ecosystems, South Africa identified the need for increased financial support to strengthen both national and transboundary conservation initiatives. This includes funding for research, implementation activities, and the development of future biodiversity professionals through student support and training programmes. There is also a strong emphasis on improving coordinated data collection and sharing systems, particularly through citizen science initiatives, which could expand biodiversity monitoring capacity, enhance public participation in conservation, and democratise access to scientific knowledge and skills.

Regarding species data and assessments, South Africa noted that it is globally recognised as a leader in this field and therefore does not currently require substantial support in core species assessment methodologies. However, there may be emerging needs related to sustainable use assessments and implementation, which would require further engagement with the Scientific Authority of the South African National Biodiversity Institute.

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For invasive alien species management, the assessment identified the need for greater investment in resources, institutional coordination, and regional collaboration mechanisms, particularly for addressing cross-border invasive species challenges. Strengthening regional data-sharing platforms, harmonising species inventories, and improving access to shared knowledge systems were highlighted as critical priorities to improve early detection, monitoring, response, and coordinated management efforts across the region.

The protected and conserved areas thematic area revealed some of the most extensive capacity needs. South Africa identified the need for the development of strategic frameworks and planning instruments for protected areas, conserved areas, and OECMs, including integration with land-use planning systems and Key Biodiversity Areas (KBAs). There is a need to strengthen governance and coordination among institutions operating within and around protected and conserved areas through formal collaboration frameworks and national coordination mechanisms. The assessment further highlighted the importance of building capacity in monitoring and evaluation, management effectiveness, environmental economics, data management, geospatial systems, and technological surveillance tools for enforcement and monitoring purposes.

Additional priorities include improving environmental law enforcement training, promoting ethical environmental management practices, strengthening public awareness and education targeting investors and developers, and developing standardised frameworks for research, monitoring, and data collection. South Africa also identified the need for improved technological infrastructure, including integrated biodiversity monitoring systems, geospatial databases, backup systems, and nationally coordinated platforms for validated data sharing. Furthermore, the establishment of national research mechanisms and the strengthening of in-house scientific capacity within government institutions were viewed as essential to support evidence-based policy development and implementation.

In the fisheries sector, the assessment identified institutional and human resource barriers that constrain biodiversity implementation. These include the freezing of critical government posts, which prevents the recruitment of scarce technical skills, and professional registration requirements that create barriers for young scientists entering public service. Concerns were also raised regarding the lack of career progression pathways within the scientific occupational framework, limiting opportunities for early-career scientists to develop expertise within specialised biodiversity and fisheries disciplines.

For genetic resources, access and benefit-sharing (ABS), and biosafety, South Africa highlighted the need for technical support to strengthen partnerships across national, regional, and international biosafety networks. Priority areas include short-term specialised training programmes in partnership with academic and research institutions, support for proposal development and resource mobilisation, facilitation of regional dialogues and study tours, and the establishment of science-policy platforms and communities of practice focused on biosafety governance and implementation.

In relation to the System of Environmental-Economic Accounting (SEEA) ecosystem accounts, South Africa identified the need for financial and technical support to strengthen national expertise and institutionalisation of ecosystem accounting. This includes continued engagement with global experts, capacity development initiatives, and the integration of SEEA ecosystem accounting into university curricula and broader education systems, including high school education. The assessment also recognised the importance of leveraging emerging technologies and interdisciplinary expertise available

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within South African universities, particularly in artificial intelligence, machine learning, big data analytics, applied data science, and computational intelligence, to strengthen ecosystem accounting and biodiversity decision-support systems.

Overall, the assessment demonstrates that South Africa requires a multifaceted capacity development approach that combines financial investment, institutional strengthening, regional cooperation, technological innovation, scientific advancement, and human capital development.

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