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OFFICIAL GUIDE TO SOUTH AFRICA



FORESTRY,
FISHERIES AND THE
ENVIRONMENT



The Department of Forestry, Fisheries and the Environment (DFFE) is mandated to give effect to the right of citizens to an environment that is not harmful to their health or wellbeing, and that is protected for the benefit of current and future generations. To this end, the department provides leadership on sustainability in environmental management, conservation and protection for the benefit of South Africans and the global community.

The department's mandate is derived from legislation that includes the:

- Marine Living Resources Act of 1998, which deals with the sustainable longterm use of marine living resources;
- National Environmental Management Act of 1998, which provides for specific legislation on biodiversity and heritage resources, oceans and coasts, climate change and air quality management, and waste and chemicals management;
- National Forests Act of 1998, which promotes the sustainable management and development of forests for the benefit of all, and creates the conditions necessary to restructure forestry in state forests for protection and sustainable use;
- National Veld and Forest Fire Act of 1998, which provides for the prevention and combating of veld, forest and mountain fires across South Africa;
- National Environmental Management: Air Quality Act of 2004, which reforms the law regulating air quality to protect the environment by providing reasonable measures for preventing pollution and ecological degradation, and securing ecologically sustainable development; and provides for national norms and standards that regulate the monitoring of air quality;
- National Environmental Management Amendment Act of 2004, which streamlines the regulation and administration of environmental impact assessment processes;
- National Environmental Management: Biodiversity Act (NEMBA) of 2004, which significantly reforms the laws regulating biodiversity;
- National Environmental Management: Integrated Coastal Management Act of 2008, which promotes the conservation of the coastal environment, and ensures that development practices and the use of natural resources are sustainable;
- National Environmental Management: Waste Act of 2008, which reforms the law regulating waste management to protect health and the environment by providing reasonable measures to prevent pollution; and
- National Environmental Management: Protected Areas Amendment Act of 2009, which provides for the assignment of national parks, special parks and heritage sites in terms of the World Heritage Convention Act of 1999. Over the medium term, the department planned to continue focusing on supporting an equitable transition to a low-carbon economy and a climate-resilient society; creating jobs and work opportunities through the Expanded Public Works Programme (EPWP); and creating an enabling environment for South Africa's transition to a circular economy.



Over the medium term, the department aimed to focus on: interventions related to mitigating and adapting to climate change; creating employment opportunities, particularly for women, young people and people with disabilities; building and protecting South Africa's conservation estate; and promoting compliance with environmental legislation.

Work within these focus areas is mainly carried out through the various environmental programmes of government's EPWP and Operation Phakisa initiatives in the oceans, biodiversity, chemicals and waste economies.

Mitigating and adapting to climate change

Over the medium term, the department aimed to lead the implementation of the Climate Change Bill, which is the first piece of legislation in South Africa aimed specifically at mitigating and addressing the effects of climate change. The Bill's objective is to develop and implement strategies that address climate change, and institute a fair, long-term energy transition plan that aims to foster a low-carbon, climate-resilient economy in South Africa.

Creating employment opportunities

The department endeavours to create employment opportunities and provide jobs through relevant interventions within government's EPWP. As such, over the next three years, the department aimed to create 93 301 work opportunities and 67 650 full-time equivalent jobs as part of the EPWP.

This will be achieved by rolling out projects and initiatives that involve restoring and rehabilitating degraded ecosystems (environmental protection and infrastructure programmes); increasing the percentage of land under conservation and managing the sustainable use of land (Working for Ecosystems); protecting, restoring and rehabilitating wetlands (Working for Wetlands); protecting water resources (Working for Water); addressing the challenges faced by the fisheries sector (Working for Fisheries); and sustaining production, growth and transformation in the forestry sector (Working for Forests).

Building and protecting the conservation estate

South Africa has exceptional biodiversity, characterised by a richness of species, high levels of species endemism and a wide variety of ecosystems. It is one of only 17 countries in the world regarded as megadiverse. As such, South Africa's biodiversity provides an array of benefits to the economy, society and human well-being. However, these benefits are dependent on intact ecosystems, healthy populations of species and genetic diversity.

As such, building and protecting South Africa's conservation estate will continue to be a departmental priority over the medium term by adding a targeted 300 000 hectares of land to the conservation estate to protect the country's wealth of biodiversity.

Promoting compliance

Over the period ahead, the department aimed to play a leading role in promoting effective compliance with environmental legislation. This included routine inspections for compliance with environmental authorisations within the six priority fisheries, the verification of fishing right holders, and appropriate enforcement to ensure that environmental laws are being complied with and that there is no environmental damage, loss or deterioration.

Role players:

South African National Biodiversity Institute (SANBI)

The SANBI was established in terms of the NEMBA of 2004. Its mandate is to monitor and report on the status of South Africa's biodiversity; all listed threatened or protected species, ecosystems and invasive species; and the impact of any genetically modified organisms released into the environment.

Over the medium term, the institute aimed to focus on restoring and rehabilitating ecosystems across South Africa by maintaining and improving existing national botanical and zoological gardens; conducting research and supporting policies on biodiversity; and refurbishing existing infrastructure in the newly designated and developed national botanical gardens in Kwelera (Eastern Cape) and Thohoyandou (Limpopo).

South African National Parks (SANParks)

SANParks was established in terms of the National Environmental Management: Protected Areas Act of 2003. Its mandate is to conserve, protect, control and manage national parks and other defined protected areas and their biodiversity. As the presence of an efficiently managed system of national parks is a key component of the national tourism economy, the entity plays a significant role in the economy and acts as a catalyst for local economic development. Through the implementation of the EPWP, the entity provides significant support to small, medium and micro enterprises, particularly in rural areas.

Over the medium term, the entity planned to focus on fighting poaching, particularly rhino poaching in the Kruger National Park and abalone poaching in the Western Cape; acquiring 30 752 hectares of land as part of its land inclusion plan; developing and upgrading infrastructure within national parks; and managing more than four million hectares of terrestrial and 369 657 hectares of marine protected biodiversity through a system of 21 national parks and 10 marine protected areas.

The national parks are:

- Addo Elephant National Park
- Agulhas National Park
- Ai-Ais/Richtersveld Transfrontier Park

- Augrabies Falls National Park
- Bontebok National Park
- Camdeboo National Park
- Garden Route (Tsitsikamma, Knysna and Wilderness) National Park
- Golden Gate Highlands National Park
- Karoo National Park
- Kgalagadi Transfrontier Park
- Kruger National Park
- Mapungubwe National Park
- Marakele National Park
- Mokala National Park
- Mountain Zebra National Park
- Namaqua National Park
- Table Mountain National Park (which incorporates the Cape of Good Hope, Table Mountain and Silvermine nature reserves)
- Tankwa Karoo National Park
- West Coast National Park.

SANParks is the leading conservation authority in all national parks around South Africa and responsible for protected land in 19 national parks. A transfrontier conservation area (TFCA) is a cross-border region. The conservation status of the areas within a TFCA ranges from national parks, private game reserves and communal natural-resource management areas to hunting-concession areas. TFCAs allow tourists easy movement across international boundaries into adjoining conservation areas.

The TFCAs are:

- Ai-Ais/Richtersveld Transfrontier Park (Namibia and South Africa);
- Kgalagadi Transfrontier Park (Botswana and South Africa);
- Limpopo/Shashe TFCAs (Botswana, South Africa and Zimbabwe);
- Great Limpopo Transfrontier Park (Mozambique, South Africa and Zimbabwe);
- Maloti-Drakensberg Transfrontier Conservation and Development Area (Lesotho and South Africa).

South African Weather Service (SAWS)

The SAWS was established in terms of the South African Weather Service Act of 2001. Its core mandate is to provide two distinct services: the public good service, funded by government for fulfilling government's international obligations under the conventions of the World Meteorological Organisation and the International Civil Aviation Organisation; and commercial services, where the user-pay principle applies. Key activities include maintaining, extending and improving the quality of meteorological services; providing risk management information; and collecting meteorological data over South Africa and the surrounding



southern oceans. Over the medium term, the entity aimed to focus on providing timely and accurate impact-based early warnings/alerts, including climate-response initiatives for inclement weather conditions; and alerts and advisory services to safeguard lives and property against the impact of severe weather.

The weather service also plans to improve the functionality of the national ambient air quality monitoring network through the implementation of air quality management plans for the Vaal, Waterberg-Bojanala and Highveld areas.

Biosphere reserves

South Africa's biosphere reserves include:

- The **Kogelberg Biosphere Reserve** is the first South African biosphere reserve and is situated in the Western Cape Province about 40 km from Cape Town. It covers 103,629 hectares, more than 80% of which consists of mountainous landscape ranging from high mountain peaks and deep valleys to gentle hills and lower mountain slopes. The remaining area comprises a gently rolling coastal plain and a marine area, which covers about 24,500 hectares. The coastline is mostly rocky with sandy beaches and estuaries.
- The **Cape West Coast Biosphere Reserve** is located on the south-western coast of South Africa, north of the Cape Town metropolitan area. It stretches between the Diep river mouth in the south and the Berg River in the north. The Langebaan Lagoon and Lower Berg River support a high diversity of wader bird species, with the latter providing the highest number of wader birds in South Africa. The area contains a number of urban areas including the dormitory town of Atlantis in the south and Saldanha Bay town and industrial complex in the north.
- The **Cape Winelands Biosphere Reserve** is located in the Western Cape Province of South Africa approximately 40 km east of Cape Town. The reserve extends northwards from the Kogelberg Biosphere Reserve in the south, along the Cape Fold Belt Mountain Chain and adjoining valleys that constitute the Cape Winelands. The reserve incorporates key portions of the registered Cape Floral Region Protected Areas World Heritage Site. The area is characterized by a mosaic of diverse ecosystems and physiographic environments and a range of land uses and human settlement patterns associated with the renowned Cape Winelands viticultural landscape. It includes an array of historic towns, hamlets and farmsteads.
- The **Garden Route Biosphere Reserve** is a highlight of the plant biodiversity of the Cape Province. The diversity of wildlife includes large mammals such as elephants, rhinos and buffalo. It is home to plateau forests, shrubs and herbs of relevance for indigenous groups such as the KhoiSan people. It includes the Tsitsikamma Marine protected area, Wilderness Lake Ramsar site, Garden Route National Park and two World Heritage sites, the Nelson Bay Cave and the Lankloof Valley.

- The **Gouritz Cluster Biosphere Reserve** is located in the southern part of South Africa. It is divided into four connected sectors ranging from sea level to 2 240 metres. The area is the only place in the world where three recognized biodiversity hotspots converge (Fynbos, Succulent Karoo and Maputoland-Tongoland-Albany). The site is characterized by high endemism of plant species (1,325 species including 182 Succulent Karoo endemics and 92 Red List species) and threatened invertebrates including seven endemic species of the enigmatic beetle genus *Colophon* and 14 butterfly species.
- The **Kruger-to-Canyons Biosphere Reserve** is located in the north-east of South Africa. It encompasses the Kruger National Park as well as other national and provincial nature reserves such as the Blyde River Canyon Nature Reserve. Three Southern African biomes are incorporated into the biosphere reserve: grasslands, Afro-montane forests and the savannah of the lowveld. There is a high level of biodiversity, especially plant endemism on mountaintops. There are a number of different land-use practices in the region including gold, phosphate and copper mining, the plantation of exotic species, and the extensive cultivation of subtropical fruits and vegetables.
- The **Magaliesberg Biosphere Reserve** is located between the cities of Pretoria and Johannesburg to the east and Rustenburg to the west. The reserve lies at the interface of two great African biomes – the Central Grassland Plateaux and the sub-Saharan savannah – and the remnants of a third biome, the Afro-montane forest. The rich biodiversity includes floral species such as *Aloe peglerae* and *Frithia pulchra*, and faunal species such as the forest shrew (*Myosorex varius*), sable antelope (*Hippotragus niger*) and 443 bird species representing 46.6% of total bird species in the southern African sub-region. The area is characterised by remarkable scenic beauty and unique natural features. The reserve also forms part of the Cradle of Humankind World Heritage site which encompasses cultural heritage and sites of archaeological interest dating back four million years. The main economic activities are agriculture, mining, urban development and tourism.
- The **Vhembe Biosphere Reserve** is located in the northeast of South Africa near the border with Botswana, Mozambique and Zimbabwe. The reserve includes the northern part of Kruger National Park, Mapungubwe National Park and World Heritage site, several Provincial Nature Reserves, two recognized centres of biodiversity and endemism (Soutpansberg and Blouberg), and the Makgabeng Plateau, which contains more than 1 000 rock art sites.
- The **Waterberg Biosphere Reserve** is situated in the Bushveld district in the Limpopo Province of South Africa. The Waterberg, as the name implies, serves as a water reservoir for this arid region. The area consists of low mountain ranges and escarpments with poor soils and a relatively low level of economic activity. The vegetation is dominated by different veld types characteristic of mountainous savannah areas which creates a rich biodiversity with more than 5 500 species of plants. The area has been inhabited over hundreds of thousands of years and is one of the most important San rock art areas in South Africa. Tourism is the major source of income, however people also practise cattle



raising and crop production, and are increasingly switching from game-farming to eco-tourism.

- The **Marico Biosphere Reserve**, located in the north of the country comprises a unique freshwater ecosystem that includes the Molemane, Molopo and Marico river systems. The ecosystem is characterised by wetlands and a dolomitic system, which constitute a valuable part of South Africa's natural heritage. The savannah and grassland areas support vulnerable plant species such as *Searsia maricoana*. Endemic fauna includes 73 species of mammal such as the African elephant, the black rhinoceros and the lion. The main economic activities are subsistence agriculture, livestock, game ranching and tourism.

Areas of conservation

Protected areas

The National Protected Areas Expansion Strategy aims to achieve the cost-effective expansion of protected areas for improved ecosystem representation, ecological sustainability and resilience to climate change and safeguarding biodiversity-based jobs. The strategy extends to freshwater and marine components and is framed to ensure that the country contributes to its international obligations on the protection of conservation estates.

South Africa is home to more than nine million ha of protected areas network, which includes national parks, nature reserves and world heritage sites. These protected areas, among other things, serve as sites for conserving the country's ecosystems, protection of high biodiversity value and provision of ecosystem services.

Most of these protected areas are geographically located in rural areas, forming an integral system with rural communities whose livelihoods and cultures are closely dependent on.

Scientific reserves

Scientific reserves are sensitive and undisturbed areas managed for research, monitoring and the maintenance of genetic sources. These include Marion Island and the Prince Edward Islands near Antarctica. Access is limited to researchers and staff.

The quality of South African and international weather forecasts relies on the availability of data inputs from the Gough Island region. Gough Island is a volcanic island rising from the South Atlantic Ocean to heights of over 900 metres above sea level with an area of 91 km.

Wilderness areas

These areas are extensive, uninhabited and underdeveloped, and access is strictly controlled with no vehicles allowed. The highest management priority is the maintenance of the intrinsic wilderness character. Wilderness areas include the Cederberg Wilderness Area and Dassen Island in the Western Cape, and the Baviaanskloof Wilderness Area in the Eastern Cape.



Biomes

The nine major terrestrial biomes or habitat types in South Africa are divided into 70 veld types. The biomes are the Savanna, Nama-Karoo, Succulent Karoo,

Grassland, Fynbos, Forest, Albany Thicket, Desert and Indian Ocean Coastal Belt. The Fynbos Biome is one of only six floral kingdoms worldwide.

World Heritage sites

South Africa has 10 World Heritage sites proclaimed by UNESCO, namely:

- **Robben Island** (Western Cape). Robben Island was used at various times between the 17th and 20th centuries as a prison, a hospital for socially unacceptable groups and a military base. Its buildings, particularly those of the late 20th century such as the maximum-security prison for political prisoners, witness the triumph of democracy and freedom over oppression and racism. It is most famous for the incarceration of political prisoners, including former President Nelson Mandela, who was imprisoned for 18 of his 27 years in jail.
- **iSimangaliso Wetlands Park** (KwaZulu-Natal). It was formerly called the Greater St Lucia Wetland Park. The ongoing fluvial, marine and aeolian processes in the iSimangaliso Wetland Park have produced a variety of landforms, including coral reefs, long sandy beaches, coastal dunes, lake systems, swamps, and extensive reed and papyrus wetlands. The interplay of the park's environmental heterogeneity with major floods and coastal storms and a transitional geographic location between subtropical and tropical Africa has resulted in exceptional species diversity and ongoing speciation. The mosaic of landforms and habitat types creates breathtaking scenic vistas. The site contains critical habitats for a range of species from Africa's marine, wetland and savannah environments.
- **Cradle of Humankind** (Gauteng). The Taung Skull Fossil Site, part of the extension to the site inscribed in 1999, is the place where in 1924 the celebrated Taung Skull – a specimen of the species *Australopithecus africanus* – was found. Makapan Valley, also in the site, features in its many archaeological caves traces of human occupation and evolution dating back some 3.3 million years. The area contains essential elements that define the origin and evolution of humanity. Fossils found there have enabled the identification of several specimens of early hominids, more particularly of *Paranthropus*, dating back between 4.5 million and 2.5 million years, as well as evidence of the domestication of fire 1.8 million to one million years ago. It includes the hominid fossil sites at Swartkrans, Sterkfontein and Kromdraai.
- **Ukhahlamba-Drakensberg Park** (KwaZulu-Natal). The park has outstanding natural beauty, Africa's highest mountain range south of Kilimanjaro, and the largest and most concentrated series of rock art paintings in Africa. The site harbours endangered species such as the Cape vulture (*Gyps coprotheres*) and the bearded vulture (*Gypaetus barbatus*). The **Maloti-Drakensberg Park** was established on 11 June 2001 by

linking the Sehlabathebe National Park in the Kingdom of Lesotho and the uKhahlamba Drakensberg Park in KwaZulu-Natal, South Africa. The highest peak is Thaba Ntlenyana rising to 3,482 metres.

- **Mapungubwe Heritage Site** (Limpopo). Mapungubwe is an open, expansive savannah landscape at the confluence of the Limpopo and Shashe rivers. Mapungubwe developed into the largest kingdom in the subcontinent before it was abandoned in the 14th century. What survives are the almost untouched remains of the palace sites and also the entire settlement area dependent upon them, as well as two earlier capital sites, the whole presenting an unrivalled picture of the development of social and political structures over some 400 years.
- **Cape Floral Region Protected Areas** (Western Cape) are located at the south western extremity of South Africa. It is one of the world's great centres of terrestrial biodiversity. The extended property includes national parks, nature reserves, wilderness areas, State forests and mountain catchment areas. These elements add a significant number of endemic species associated with the Fynbos vegetation, a fine-leaved sclerophyllic shrubland adapted to both a Mediterranean climate and periodic fires, which is unique to the Cape Floral Region.
- **Richtersveld Cultural and Botanical Landscape** (Northern Cape). The 160 000 ha of dramatic mountainous desert in north-western South Africa constitutes a cultural landscape communally owned and managed. This site sustains the semi-nomadic pastoral livelihood of the Nama people, reflecting seasonal patterns that may have persisted for as much as two millennia in southern Africa. It is the only area where the Nama still construct portable rush-mat houses (haru om) and includes seasonal migrations and grazing grounds, together with stock posts. The pastoralists collect medicinal and other plants and have a strong oral tradition associated with different places and attributes of the landscape..
- **Vredefort Dome (Gauteng)**. This is a representative part of a larger meteorite impact structure or astrobleme. Dating back to over two million years, it is the oldest astrobleme yet found on Earth. With a radius of 190 km, it is also the largest and the most deeply eroded. Vredefort Dome bears witness to the world's greatest known single energy release event, which had devastating global effects including, according to some scientists, major evolutionary changes. It provides critical evidence of the Earth's geological history and is crucial to understanding of the evolution of the planet. Despite the importance of impact sites to the planet's history, geological activity on the Earth's surface has led to the disappearance of evidence from most of them, and Vredefort is the only example to provide a full geological profile of an astrobleme below the crater floor.
- **ǀKhomani Cultural Landscape**. (Located at the border with Botswana and Namibia in the northern part of the country, coinciding with the Kalahari Gemsbok National). The large expanse of sand contains evidence of human occupation from the Stone Age to the present and is associated with the culture of the formerly nomadic ǀKhomani San people and the strategies that allowed them to adapt to harsh desert conditions. They

developed a specific ethnobotanical knowledge, cultural practices and a worldview related to the geographical features of their environment. The †Khomani Cultural Landscape bears testimony to the way of life that prevailed in the region and shaped the site over thousands of years.

- **Makhonjwa Mountains**, also known as the Barberton Greenstone Belt (Mpumalanga). Situated in north-eastern South Africa, the Barberton Makhonjwa Mountains comprises 40% of the Barberton Greenstone Belt, one of the world's oldest geological structures. The property represents the best-preserved succession of volcanic and sedimentary rock dating back 3.6 to 3.25 billion years and forms a diverse repository of information on surface conditions, meteorite impacts, volcanism, continent-building processes and the environment of early life.

South Africa had listed the following properties on its tentative list:

- Succulent Karoo Protected Areas
- Liberation Heritage Route
- Early Farmsteads of the Cape Winelands
- The Emergence of Modern Humans: The Pleistocene occupation sites of South Africa
- Human Rights, Liberation Struggle and Reconciliation: Nelson Mandela Legacy Sites.

Wetlands

Wetlands support a range of specialised plant, insect and mammal life and also supply food, grazing, building and craft material to people. They are able to improve water quality, reduce flood impacts, control erosion and sustain river flows. A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention, also known as 'The Convention on Wetlands', an intergovernmental environmental treaty established by UNESCO on 2 February 1971 in Ramsar, Iran.

It came into force from 1975 and provides for national action and international cooperation regarding the conservation of wetlands and wise sustainable use of their resources. Each year on 2 February is World Wetlands Day to mark the date of the adoption of the Convention on Wetlands in 1971. South Africa's 31 Ramsar wetland sites are:

- De Hoop Vlei (Western Cape)
- Barberspan (North West)
- De Mond - Heuningnes Estuary (Western Cape)
- Blesbokspruit (Gauteng)
- St. Lucia System (KwaZulu-Natal)
- Turtle Beaches/Coral Reefs of Tongaland (KwaZulu-Natal)
- Langebaan (Western Cape)
- Verlorenvlei (Western Cape)
- Orange River Mouth (Northern Cape)
- Kosi Bay (KwaZulu-Natal)

- Lake Sibaya (KwaZulu-Natal)
- Wilderness Lakes (Western Cape)
- Ukhahlamba-Drakensberg Park (KwaZulu-Natal)
- Ndumo Game Reserve (KwaZulu-Natal)
- Seekoeivlei Nature Reserve (Free State)
- Nylsvley Nature Reserve (Limpopo)
- Verloren Valei Nature Reserve (Mpumalanga)
- Prince Edward Islands
- Makuleke Wetlands (Limpopo)
- Ntsikeni Nature Reserve (KwaZulu-Natal)
- uMgeni Vlei Nature Reserve (KwaZulu-Natal)
- False Bay (Western Cape)
- Bot-Kleinmond Estuarine System (Western Cape)
- Dassen Island Nature Reserve (Western Cape)
- Dyer Island Nature Reserve (Western Cape)
- Kgaswane Mountain Reserve (North West)
- Ingula Nature Reserve (Free State and KwaZulu-Natal)
- Berg Estuary (Western Cape)
- Middelpunt Nature Reserve (Mpumalanga)
- De Berg Nature Reserve (Mpumalanga)
- Mkambati Nature Reserve (Eastern Cape).

Marine protected areas (MPAs)

South Africa's 41 MPAs are:

- Orange Shelve Edge (Northern Cape)
- Namaqua Fossil Forest (Northern Cape)
- Namaqua NP (Northern Cape)
- Childs Bank (Western Cape)
- Benguela Mud (Western Cape)
- Cape Canyon (Western Cape)
- Rocher Pan (Western Cape)
- Malgas Island (Western Cape)
- Marcus Island (Western Cape)
- Jutten Island (Western Cape)
- Langebaan Lagoon (Western Cape)
- Sixteen-Mile Beach (Western Cape)
- Robben Island (Western Cape)
- Table Mountain National Park (Western Cape)
- Helderberg (Western Cape)
- Betty's Bay (Western Cape)
- Walker Bay (Western Cape)



- Southeast Atlantic Aeamounts (Western Cape)
- Browns Bank Corals (Western Cape)
- Agulhas Mud (Western Cape)
- De Hoop (Western Cape)
- Stilbaai (Western Cape)
- Agulhas Bank Complex (Western Cape)
- Southwest Indian Seamounts (Western Cape)
- Goukamma (Western Cape)
- Robberg (Western Cape)
- Tsitsikamma (Eastern Cape)
- Agulhas Front (Eastern Cape)
- Kingklip Kingdom (Eastern Cape)
- Sardinia Bay (Eastern Cape)
- Addo Elephant National Park (Eastern Cape)
- Amathole (Eastern Cape)
- Amathole Offshore (Eastern Cape)
- Dwesa-Cwebe (Eastern Cape)
- Hluleka (Eastern Cape)
- ondoland (Eastern Cape)
- Trafalgar (KwaZulu-Natal)
- Aliwal Shoal (KwaZulu-Natal)
- Uthukela Banks (KwaZulu-Natal)
- iSimangaliso (KwaZulu-Natal)
- Prince Edward Islands (Southern Ocean).

Zoological gardens

By mid-2024, the 85-hectare National Zoological Gardens (NZG), also known as the Pretoria Zoo, is home to more than 4 200 animals, from rainforest tarantulas to tigers and lions. Each of these creatures thrives under the expert husbandry of a team of dedicated biologists, curators and keepers who work to ensure the animals are housed in habit-appropriate enclosures. The NZG is the largest zoo in the country and the only one with national status.

More than 600 000 people visit the Zoo annually. The total length of the walkways in the Zoo in Pretoria is approximately six kilometres. The highly accredited tourism site, World Atlas, published an article rating the Pretoria Zoo, as one of the 10 best ranked zoos in the world, competing with the well-known Bronx Zoo in New York. An Aquarium and Reptile Park also form part of the Zoo facility in Pretoria. The Aquarium is the largest inland marine aquarium in the country. The third largest collection of exotic trees can be found at the Zoo. The NZG has since been incorporated into the SANBI. It runs various programmes emphasising the value of a healthy environment to build a prosperous South Africa.



Some of the government and private venues include the following:

- Joburg Zoo in Johannesburg, which was founded in 1904, covers 55 ha of land and houses over 320 species of animals.
- Mitchell Park Zoo in Durban, which was named after Sir Charles Bullen Hugh Mitchell, is the country's second oldest zoo after the NZG in Pretoria.
- East London Zoo is located in the Queens Park Zoological Gardens in East London, Eastern Cape. It is financed and managed by the Buffalo City Metropolitan Municipality. Apart from the animals, the zoo and gardens contain a treasure trove of flora and fauna, some of which is only found in the Eastern Cape.
- Birds of Eden is the world's largest free flight aviary and bird sanctuary, located near Plettenberg Bay in the Western Cape, South Africa. Its unique two-hectare dome (the world's largest) spans over a gorge of indigenous forest. It is home to over 3 500 birds from over 220 species, with the main focus being African birds.
- Umgeni River Bird Park in Durban, in KwaZulu-Natal, is situated in 3.5 ha of lush tropical landscaping and houses an ever-increasing collection of more than 800 birds from 200 species.
- World of Birds is the largest bird park in Africa and one of the few large bird parks in the world. Over 3 000 birds (and small animals) of 400 different species are uniquely presented in more than 100 spacious landscaped walk through aviaries, allowing you the most intimate closeness with nature.
- The Bushbabies and Monkey Sanctuary, situated in Hartbeespoort Dam provides an environment where monkeys (primates) can be given their freedom in a natural environment. The sanctuary situated in one of the many kloofs (gorges) of the Magaliesberg mountain range provides the perfect environment for Monkeys from around the world.

Conservation centres

The NZG of South Africa is responsible for the management of the Mokopane Biodiversity Conservation Centre. The centre covers an area of 1334 hectares, comprising of a zoo-like environment, breeding camps and a free ranging area, all accommodating a large variety of African species as well as species from other continents.

The Ann van Dyk Cheetah Centre, formerly known as the De Wildt Cheetah Centre, is a breeding sanctuary for cheetahs and other endangered animals situated in Hartbeespoort. Other creatures being housed at the centre include African wild dogs, brown hyenas, servals, suni antelopes, riverine rabbits and a population of vultures.

The Hoedspruit Endangered Species Centre (HESC) in Limpopo focuses on the breeding and conservation of a variety of animal species, including African wild cat, ground hornbill, sable antelope, lion, cheetah and rhino. The HESC works closely with advisory committees of the Pretoria Zoo and the University of Pretoria.

Aquariums and oceanariums

There are aquariums in Pretoria, Gqeberha, Cape Town, Durban and East London. The Aquarium and Reptile Park of the NZG of South Africa in Pretoria is the largest inland aquarium in Africa. The Gqeberha Oceanarium's exhibits include an underwater observation area, a dolphin research centre, various smaller tanks containing 40 different species of bony fish and two larger tanks that display sharks and stingrays.

Officially opened on 2 December 1931, the East London Aquarium is the oldest public aquarium in Southern Africa. At the Two Oceans Aquarium situated at the Victoria and Alfred Waterfront, Cape Town, more than 3 000 specimens represent some 300 species of fish, invertebrates, mammals, birds and plants supported by the waters along the Cape coast. The aquarium at uShaka Marine World in Durban incorporates both fresh and seawater species.

Snake and reptile parks

The Bayworld Snake Park in Gqeberha is home to a wide variety of South African and foreign reptiles. The Aquarium and Reptile Park at the NZG in Pretoria also houses a wide variety of reptile species from all over the world. The Hartbeespoort Dam Snake and Animal Park near Pretoria features one of the finest reptile collections in southern Africa.

The Pure Venom Reptile Farm is one of the largest of South Africa's reptile parks. It is situated inland from Shelly Beach, on KwaZulu-Natal's South Coast. The Croc River Enviro Park in Nelspruit, Mpumalanga is the largest facility of its type in Africa. Khamai Reptile Centre primarily aims to conserve and breed endangered reptiles.

Located outside Hoedspruit, it offers a close-up look at many local as well as exotic snakes, crocodiles and lizards. The Croc City Crocodile and Reptile Park breeds crocodiles on a farm in Nietgedacht, Chartwell and other resident reptiles.

Private sector involvement

More than 400 organisations in South Africa concentrate on conservation, wildlife and the general environment, while more than 30 botanical and horticultural organisations concentrate on the conservation of the country's fauna and flora.

Biodiversity

South Africa is home to some 24 000 species, around 7% of the world's vertebrate species, and 5,5% of the world's known insect species (only about half of the latter have been described). In terms of the number of endemic species of mammals, birds, reptiles and amphibians found in South Africa.

Marine biodiversity is also high, with more than 11 000 species found in South African waters, which is about 15% of global species. More than 25% of these species (or 3 496 species) are endemic to South Africa, many of which are threatened, especially in river ecosystems (82%) and estuaries (77%).

Poaching

Fighting poaching, particularly rhino poaching in the Kruger National Park and abalone poaching in Western Cape, remains a top priority. Strategies to combat wildlife crime involve the technological improvement of early warning systems and risk assessments, better coordination with law-enforcement agencies, and the deployment of additional rangers.

Recycling

The Waste Management Bureau, which was established in 2016 in terms of the National Environmental Management: Waste Management Act of 2014, is tasked with promoting and facilitating the minimisation, reuse, recycling and recovery of waste by providing specialist advice and support for the development of integrated waste management plans for industry and municipalities.

The bureau is also tasked with monitoring the implementation of industry waste management plans, and managing the disbursement of revenue generated from charges for waste management. The National Regulator for Compulsory Specifications also receives funding to implement compulsory specifications for plastic bags.

Climate change

Severe weather events, a phenomena associated with global warming, are a reminder that climate change is already part of our lived reality. The Sixth Assessment report of the Intergovernmental Panel on Climate Change says that by 2030, 50% of the world's population will live in coastal areas that are exposed to floods, storms and tsunamis intensifying the vulnerability of communities living in conditions of poverty.

South Africa has now adopted the Climate Change Bill, which provides for a detailed response to climate change, and the mitigation of greenhouse gases which cause climate change, in line with the country's international obligations. The focus is on coordinating a response across government and in all three spheres of government..

Green economy

South Africa views green economy as a sustainable development path based on addressing the interdependence between economic growth, social protection and natural ecosystem. Through South Africa's Green Economy Strategy, the DFFE continues to promote equitable, inclusive and sustainable economic growth and social development.

The strategy has eight key pillars, namely:

- Green buildings and the built environment;
- Sustainable transport and infrastructure;
- Clean energy and energy efficiency;
- Natural resource conservation and management;
- Sustainable waste management;
- Water management;
- Sustainable consumption and production; and
- Agriculture food production and forestry.

Forestry

In terms of Forestry South Africa, which represents the forestry industry, the South African forestry landscape is a tapestry of commercial timber plantations – or tree farms – interwoven by natural spaces of unplanted land to enhance and conserve biodiversity, grasslands, wetlands and indigenous forests.

With some 80% of the country's timber plantations certified by the Forest Stewardship Council, South Africa has one of highest degree of forest certification in the world. South Africans can be proud of their Forestry Industry as one that is environmentally, socially and economically responsible.

National Arbor Week

South Africa celebrates Arbor Week in the first week of September annually. The DFFE, as the custodian of forestry in South Africa, is responsible for the campaign. National Arbor Week is an opportune time to call on all South Africans to plant indigenous trees as a practical and symbolic gesture of sustainable environmental management.

It affords government, the private sector, non-governmental and community-based organisations and the public to be involved in “greening” their communities. Planting trees and greening human settlements takes place in communities.

Greening refers to an integrated approach to the planting, care and management of all vegetation in urban and rural areas, to secure multiple benefits for communities. Greening in the South African context takes place in towns, townships and informal settlements, specifically because in the past the latter mentioned areas were disadvantaged in terms of planning for parks as well as tree planting in streets and open spaces.

The following were selected as Trees of the Year for 2024:

- *Searsia lancea*, Karee (Common)
- *Searsia leptodictya*, Mountain karee (Common)
- *Apodytes dimidiata* subsp. *dimidiata*, Whitepear (Rare).

The following were selected as Trees of the Year for 2025:

- *Sideroxylon inerme* subsp. *inerme*, White-milkwood (Common).
- *Mimusops caffra*, Red milkwood (Common).
- *Spirostachys africana*, Tamboti (Rare).

Woodlands

Woodlands include those types ranging from wooded grasslands (between 5% and 10% tree canopy cover) to dense thickets (areas with over 75% tree canopy cover but which do not meet the other criteria required to be defined as natural forest). The woodland, also known as savannas, constitute a forest resource of major importance in South Africa. Several protected tree species of the savanna, such as camel thorn and leadwood, contribute substantially to the lucrative braai wood market, and guidelines have been set for licensing processes to assist with the control of their use.

Kathu Forest in the Northern Cape is the first woodland area to be declared protected woodland under the National Forests Act of 1998. The woodlands are a valuable source of fuel, building material, craft timber and a variety of non-timber products. These include fruit, fodder, medicinal compounds, honey, meat and mushrooms. They form the backbone of the livelihoods of millions of people. The wood processing sector comprises board manufacturers and manufacturers of wood-based products.

Fisheries

The fishing sector remains a significant contributor to food security and the economy. Stabilising the sub-sector through the allocation of longer-term fishing rights is critical to attracting investment into the industry. The transformation of the South African fishing industry is a constitutional and legislative imperative. The Fishing Rights Allocation Process and the management of commercial fishing rights are an important site for industry transformation.

Aquaculture

South Africa is a maritime nation with jurisdiction over one of the largest exclusive economic zones in the world. Its oceans represent a significant asset for current and future generations, with enormous economic potential, in aquaculture, bioprospecting, marine eco-tourism, extractive industries, and less obvious benefits of healthy ecosystem services such as climate regulation, carbon storage and waste absorption.

The aquaculture subsector can be divided into two main categories:

- Freshwater aquaculture consists mainly of freshwater species such as rainbow trout, brown trout, Koi carp, crocodiles, ornamental fish, African catfish, Mozambique and Nile tilapia, Marron and waterblommetjies.



- Marine aquaculture consists of abalone, white prawns, oysters, seaweeds, Spanish & Brown mussels, Dusky & Silver Kob; yellow tail, Atlantic salmon, clownfish, White Margined Sole, West & East coast rock lobster; scallop and blood worms.