



The greatest challenge for South Africa and the rest of the world is to improve the quality of human life for present and future generations, without depleting its natural resources.

This can only be achieved through a healthy natural environment which supplies raw materials, absorbs and treats waste products, and maintains water, soil and air quality. Food security, water provision and climatic stability depend on having properly functioning ecosystems, maintained levels of biodiversity, sustainable rates of resource extraction, and a minimal production of waste and pollution.

South Africa has taken several steps to implement the United Nations' Agenda 21 on sustainable development at national and local level, including reforming environmental policies, ratifying international agreements and participating in many global and regional sustainable development initiatives.

One sign of South Africa's commitment to sustainable resource management and development was Johannesburg's hosting of the World Summit on Sustainable

DID YOU KNOW?

South Africa will be hosting the Fifth World Parks Congress in Durban, KwaZulu-Natal in September 2003. The Congress is the most important event of its kind dealing with conservation issues and environmental protection.

Development in 2002. Delegates from almost 200 countries witnessed first-hand the host country's multipronged drive to improve the lives of its people and the natural environment. Thousands of delegates were also able to experience for themselves this country's remarkable biodiversity.

South Africa enjoys the third highest level of biodiversity in the world. The country's rich natural heritage is vast and staggering in its proportions. For

example, over 3 700 marine species occur in South African waters and nowhere else in the world.

Some 18 000 vascular plant species occur within South Africa's boundaries, of which 80% are endemic.

A wealth of animal life exists. The country hosts an estimated 5,8% of the world's total mammal species, including the so-called Big Five, 8% of bird species, 4,6% of the global diversity of reptile species, 16% of all marine fish species in the world, and 5,5% of the world's described insect species.

The remarkable diversity of South Africa's marine life is partly explained by the extreme contrast between the cold waters on its west coast and the relatively warm waters of the east coast.

The easiest way to describe the country's natural heritage is on the basis of a systematic classification of regions, or biomes. A biome is a broad ecological unit, representing a major life zone extending over a large area, which contains relatively uniform plant and animal life that is closely connected to environmental conditions, especially climate.

South Africa is one of six countries in the world with an entire plant kingdom within its national confines. The Cape Floral Kingdom has the highest recorded species diversity for any similar-sized temperate or

tropical region in the world. There are seven major terrestrial biomes, or habitat types, in South Africa.

Consumption and investment

In South Africa, both consumptive and non-consumptive ways of utilising resources are applied and this contributes to the national fiscus and to the sustainable development of the country and the upliftment of the people. Consumptive use of wildlife resources plays an important role in the South African economy as is illustrated by the hunting statistics for 1997 when more than R176 million was generated.

Tourism is a vital industry. In 2002, South Africa was the world's fastest growing tourist destination. Foreign visitors are attracted by the country's natural beauty, so it is not surprising that protecting this vast and diverse resource has become a national priority.

There are some 9 000 privately owned game ranches in South Africa, expanding at a rate of 300 000 ha per annum. The contribution of these areas to maintaining South Africa's unique biodiversity is incalculable.

Environmental management in South Africa is the responsibility of various government institutions. At central government level, the Department of Environmental Affairs and Tourism is the central policy-formulating and co-ordinating body.

Other departments involved include Agriculture, Water Affairs and Forestry, Minerals and Energy, and Health. At regional level, the provincial conservation agencies are major role-players, and independent statutory organisations such as the South African National Parks (SanParks) and National Botanical Institute (NBI) are important partners in the country's total conservation effort.

Success stories

South Africa's success in environmental protection is illustrated by a few examples of the conservation of endangered species.



In 1910, there were less than 20 southern white rhino left. In 1997, they numbered almost 8 000 in about 60 populations across South Africa.

In 1910, the elephant population in South Africa was reduced to four remnant populations covering an area of less than 10 000 ha. In 1998, there were 11 300 in approximately 60 locations.

The popularity of cycads with collectors put the genus under severe threat. Through actions such as legislation and the refining of ex situ conservation efforts, artificial propagation has been achieved. By mid-2002, more than 200 000 seedlings of endangered species of the genus had been sold to the general public. The threat to the wild populations has largely been reduced.

Sizes (in hectares) of national parks

Park	Date proclaimed	Area in 1994	Area added since '94	Current size (ha)
Addo Elephant	1931	51 309	23 030	74 339
Agulhas	1999	0	5 690	5 690
Augrabies Falls	1966	11 743	29 933	41 676
Bontebok	1931	2 786	0	2 786
Cape Peninsula	1998	0	13 450	13 450
Golden Gate Highlands	1963	11 633	0	11 633
Kalahari Gemsbok (now Kgalagadi Transfrontier)	1931	959 103	0	959 103
Karoo	1979	41 047	36 047	77 094
Knysna National Lakes Area	1985	15 000	0	15 000
Kruger	1926	1 962 362	0	1 962 362
Marakele	1993	37 035	13 691	50 726
Mountain Zebra	1937	6 536	18 127	24 663
Richtersveld	1991	162 445	0	162 445
Tankwa Karoo	1986	27 064	16 835	43 899
Tsitsikamma	1964	63 942	0	63 942
Vaalbos	1986	22 697	0	22 697
Vhembe-Dongola	1998	0	5 356	5 356
West Coast	1985	32 361	3 912	36 273
Wilderness	1985	10 600	0	10 600
Total		3 417 663	166 071	3 583 734

Special places

There are a number of management categories of protected areas in South Africa.

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

Wilderness areas

These areas are extensive in size, uninhabited and under-developed, and access is strictly controlled since no vehicles are allowed. The highest management priority is the maintenance of the intrinsic wilderness character. Examples of wilderness areas are the Cedarberg Wilderness Area and Dassen Island in the Western Cape, and the Baviaanskloof Wilderness Area in the Eastern Cape.

National parks and equivalent reserves

SanParks manages a system of 20 national parks representative of the country's important ecosystems and unique natural features.

Commercial development and tourism (almost two million visitors per year), conservation development and the involvement of local communities are regarded as performance indicators.

These areas include national, provincial parks and nature reserves, and indigenous State forests. Some of

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these natural and scenic areas are extensive in size, and include large representative areas of at least one of the country's biomes. Since 1994, parks under SanParks have expanded by 166 071 ha. Celebrated national parks include Kruger, Addo Elephant, Tsitsikamma and the Richtersveld, all unique and all exceptionally beautiful.

There are currently six Transfrontier Conservation Areas along borders with neighbouring countries, at various stages of development: Great Limpopo, Kgalagadi, Lubombo, Ais-Ais/Richtersveld, Maloti-Drakensberg and Limpopo-Shashe. These are conservation landmarks, significantly promoting regional integration, greater biodiversity, environmental tourism and economic growth.

Wetlands

These include a wide range of inland and coastal habitats – from mountain bogs and fens and midland marshes to swamp forests and estuaries, linked by green corridors of streambank wetlands. Wetlands were previously regarded as unproductive and even unhealthy wastelands. Today it is realised that, if well managed, they are essential in meeting the needs of a growing population. Stringent efforts are now being made to conserve South Africa's remaining wetlands. It is estimated that up to half have been lost in the last 40 years.

Botanical Gardens

A national treasure is Kirstenbosch, home to the NBI, on the eastern slopes of Table Mountain in Cape Town.

It houses 5 300 indigenous plant species, and was voted one of the top seven botanical gardens in the world at the International Botanical Gardens Congress in 1999.

The other gardens are the Desert Karoo in Worcester, Harold Porter in Betty's Bay, Free State in Bloemfontein, Natal in Pietermaritzburg, Lowveld in Nelspruit, Witwatersrand in Roodepoort and the Pretoria National Botanical Garden. The latter houses the National Herbarium of South Africa, the largest in the southern hemisphere.

Marine resources

The commercial fishery industry is valued at more than R2,5 billion annually and employs 27 000 people

directly, while recreational fishing attracts some 750 000 enthusiasts, employs over 130 000 people and generates more than R1,7 billion in revenue to direct and indirect participants each year.

South Africa's most valuable commercial fishery is the demersal fishery, dominated by deep-sea trawling for Cape hake (hake contributes more than 65% of the deep-sea trawl catch).

Pelagic fishery is South Africa's largest in terms of volume landed. Pelagic catches fluctuate because anchovy dominated the catch from the sixties until 1996, when pilchard reassumed dominance. Used for the manufacture of fish-meal and oil, anchovy was the single most important species for 30 years, after the sixties, when overfishing caused the pilchard stock to collapse.

The primary objectives of the Government's fisheries policy are the upliftment of impoverished coastal communities through improved access to marine resources and the sustainable management of those resources. The Marine Living Resources Act of 1998 provides for the conservation of the marine ecosystem, the long-term sustainable utilisation of marine living resources, and the protection of and orderly access to exploitation of certain such resources. The Act states that no fishing whatsoever is allowed without a permit. Licences are required for commercial fishing by subsistence and recreational fisherfolk and mariculture entrepreneurs. Commercial fishing is subject to allowable catches or quotas.

South Africa has some of the best fish stocks in the world. For 2002, the Department recorded a total allowable catch (TAC) of 257 978 t, an increase of 75 978 t over 2001. The TAC for anchovies for 2002 was 259 726 t. This makes the pelagic catch 158% higher than the 1994 figures. This is due largely to sound fisheries management.

The final pelagic TAC for the 2002 pelagic season showed an overwhelming increase of over 80% from December 2001.



In a move to strengthen government's war on abalone poaching and efforts to ensure that all the country's marine resources are sustainably harvested, South Africa's first-ever environmental court was launched in March 2003 in Hermanus, Western Cape.

In addition to the establishment of the court, the Department of Environmental Affairs and Tourism, in partnership with the South African Police Service, is working on a marine training and procedure manual which will assist police officers and fishery control officers to ensure effective investigations leading to convictions and maximum sentences.