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REPUBLIC OF SOUTH AFRICA



South Africa Country Study 2005

SITUATIONAL ASSESSMENT UNDERTAKEN TO INFORM SOUTH AFRICA'S
NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (NBSAP)

SOUTH AFRICA

COUNTRY STUDY

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ACRONYMS

ABS	Access and Benefit Sharing	GDP	Gross Domestic Product
ANC	African National Congress	GEAR	Growth, Employment and Redistribution Strategy
ARC	Agricultural Research Council	GEF	Global Environment Facility
BEE	Black Economic Empowerment	GIS	Geographic Information System
C.A.P.E.	Cape Action for People and Environment	GMO	Genetically Modified Organism
CARA	Conservation of Agricultural Resources Act, 1998 (Act 43 of 1998)	HDI	Human Development Index
CBD	Convention on Biological Diversity	HIV/AIDS	Human Immuno-deficiency Virus and Acquired Immune Deficiency Syndrome
CBO	Community Based Organisation	IDP	Integrated Development Plan
CCD-NAP	National Action Programme, prepared in response to the United Nations Convention to Combat Desertification	ISRDS	Integrated Sustainable Rural Development Strategy
CEC	Committee for Environmental Co-ordination	IUCN	International Union for the Conservation of Nature (World Conservation Union)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	KZN	KwaZulu-Natal
CMA	Catchment Management Agency	LUMB	Land Use Management Bill
CSIR	Council for Scientific and Industrial Research	MCM	Marine and Coastal Management Branch of DEAT
DAC	Department of Arts and Culture	MEA	Multilateral Environmental Agreement
DEAT	Department of Environmental Affairs and Tourism	MEC	Member of Executive Council (provincial government)
DG	Director-General	MINMEC	Minister and MEC Committee for Environmental Affairs and Tourism, a forum consisting of the Minister and Deputy Minister of DEAT, as well as the provincial members of the Executive Council
DFA	Development Facilitation Act, 1995 (Act 67 of 1995)	MINTEC	Technical Committee of MINMEC
DLA	Department of Land Affairs	MLRA	Marine Living Resources Act, 1998 (Act 18 of 1998)
DME	Department of Minerals and Energy	MLRF	Marine Living Resources Fund
DoA	Department of Agriculture	MoU	Memorandum of Understanding
DPLG	Department of Provincial and Local Government	MPA	Marine Protected Area
DST	Department of Science and Technology	NBI	National Botanical Institute (now renamed – see SANBI)
DTI	Department of Trade and Industry	NBSAP	National Biodiversity Strategy and Action Plan
DWAF	Department of Water Affairs and Forestry	NEMA	National Environmental Management Act, 1998 (Act 107 of 1998)
E	East	NEMBA	National Environmental Management:
EEZ	Exclusive Economic Zone		
EIA	Environmental Impact Assessment		
EIP	Environmental Implementation Plan		
EKZNW	Ezemvelo KwaZulu-Natal Wildlife		
EMP	Environmental Management Plan		
EWT	Endangered Wildlife Trust		

ACRONYMS

	Biodiversity Act, 2004 (Act 10 of 2004)	SETA	Sector Education and Training Authority
NEMPAA	National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003)	SIBIS	SANBI's Integrated Biodiversity Information System
NEPAD	New Partnership for Africa's Development	SKEP	Succulent Karoo Ecosystem Programme
NFA	National Forests Act, 1998 (Act 84 of 1998)	STEP	Subtropical Thicket Ecosystem Planning
NGO	Non-Governmental Organisation	SUAR	Sustainable Utilisation of Agricultural Resources Bill
NRF	National Research Foundation	THETA	Tourism and Hospitality Education and Training Authority
NSBA	National Spatial Biodiversity Assessment	TFCA	Transfrontier Conservation Area
NSDP	National Spatial Development Perspective	UNCCD	United Nations Convention to Combat Desertification
NSSD	National Strategy for Sustainable Development	UNDP	United Nations Development Programme
NWA	National Water Act, 1998 (Act 36 of 1998)	UNFCCC	United Nations Framework Convention on Climate Change
PPP	Public Private Partnership	URS	Urban Renewal Strategy
Ramsar	Convention on Wetlands of International Importance, signed in Ramsar, Iran, in 1971	WCNCB	Western Cape Nature Conservation Board (CapeNature)
RDL	Red Data List	WfW	Working for Water Programme
RDM	Resource Directed Measures	WfWet	Working for Wetlands Programme
RDP	Reconstruction and Development Programme	WG1	Working Group of MINTEC, on biodiversity and heritage
RHP	River Health Programme	WG2	Working Group of MINTEC, on impact management, pollution and waste management
S	South	WG3	Working Group of MINTEC, on sustainable development, environmental monitoring and reporting and environmental capacity building
SA	South Africa	WHS	World Heritage Site
SABI	South African Biosystematics Initiative	WRC	Water Research Commission
SABIF	South African Biodiversity Information Facility	WSSD	World Summit on Sustainable Development
SABONET	Southern African Botanical Diversity Network	WWF-SA	World Wide Fund for Nature, South Africa
SADC	Southern African Development Community		
SAEON	South African Environmental Observation Network		
SAIAB	South African Institute for Aquatic Biodiversity		
SALGA	South African Local Government Association		
SANAP	South African National Antarctic Programme		
SANBI	South African National Biodiversity Institute		
SANParks	South African National Parks		

1. INTRODUCTION

The National Biodiversity Strategy and Action Plan (NBSAP) aims to establish a clear framework and a plan of action for the conservation and sustainable use of South Africa's biodiversity and the equitable sharing of benefits derived from this use.

The NBSAP was prepared by the Department of Environmental Affairs and Tourism (DEAT), during the period May 2003 to May 2005. This Country Study was prepared as part of the stocktaking and assessment phase of the NBSAP development process. The Country Study is a detailed examination of the status of South Africa's biodiversity and the current socio-economic, policy and institutional context, and is intended to highlight opportunities and constraints informing the Strategy.

The Country Study is based on a rapid assessment and literature review, with input received from the NBSAP Project Steering Committee, Task Teams, thematic area consultants and stakeholders. Stocktaking assessments were carried in the following thematic areas:

- Policy and legislation;
- Institutional capacity;
- Social aspects of conservation;
- Sustainable use;
- Economics and poverty alleviation;
- Access and benefit-sharing;
- Invasive alien species;
- National Spatial Biodiversity Assessment, comprising assessments of terrestrial, river, estuarine and marine ecosystems.

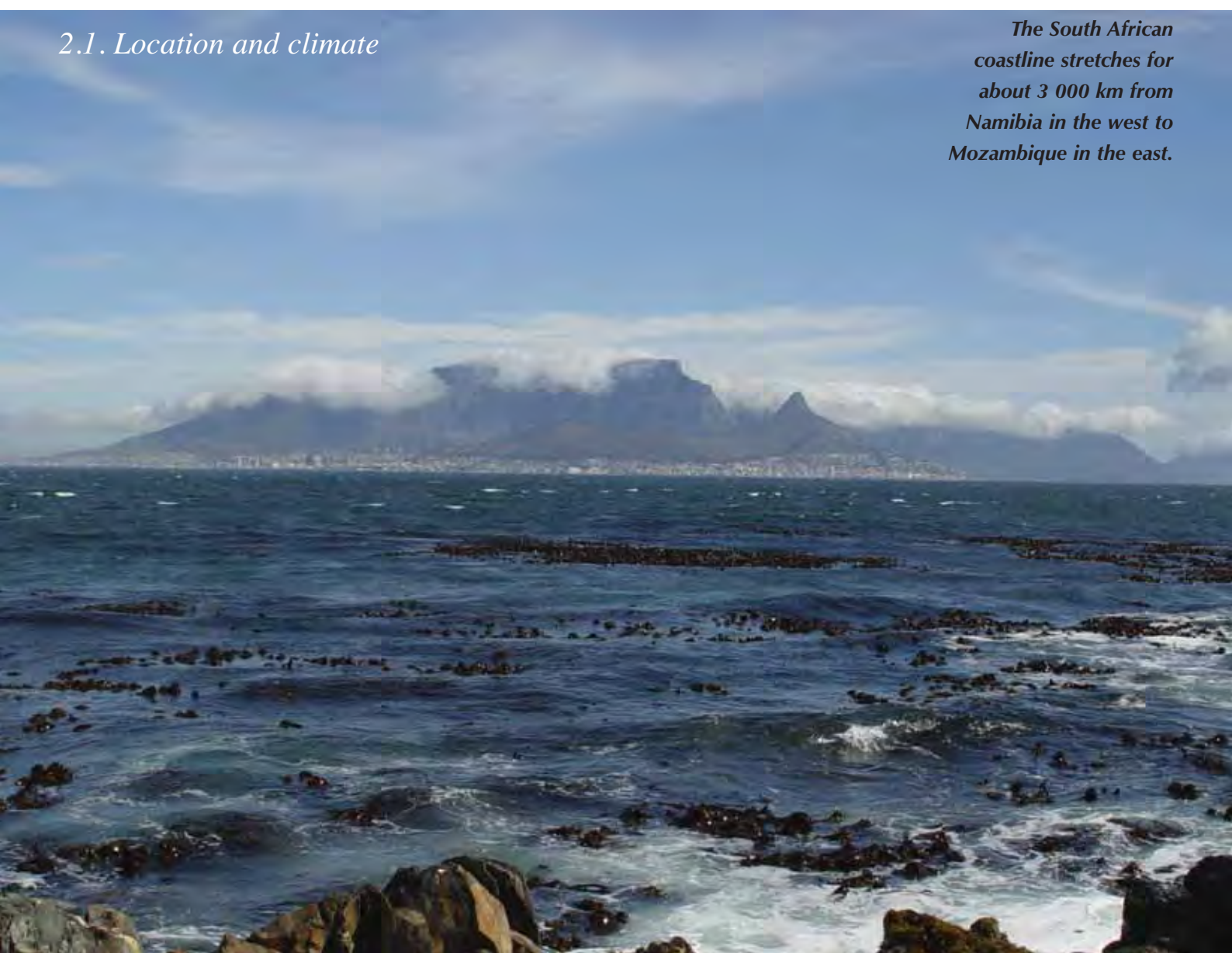
Stocktaking reports and other NBSAP documents are available on the DEAT website (www.deat.gov.za).



2. SOUTH AFRICA IN CONTEXT

2.1. Location and climate

The South African coastline stretches for about 3 000 km from Namibia in the west to Mozambique in the east.



The Republic of South Africa is the southernmost country on the African continent stretching from latitude 22°S to 35°S, and from longitude 17°E to 33°E. Covering an area of 1 219 090 km², South Africa is bordered to the north (from west to east) by Namibia, Botswana, Zimbabwe, Mozambique and Swaziland, while the Kingdom of Lesotho is landlocked within South Africa. The Prince Edward and Marion Islands, situated about 1 770 km south-east of Port Elizabeth in the southern Indian Ocean¹, and Gough Island situated to the southwest of Cape Town in the

Atlantic Ocean, are part of South African territory. South Africa is one of 26 countries with a presence in Antarctica.

The South African coastline stretches for about 3 000 km from Namibia in the west to Mozambique in the east. Two major oceans border the country, the Indian Ocean with the warm (20°C to 25°C) Agulhas current to the east, and the Atlantic Ocean, with the colder (16°C to 21°C) Benguela current to the west. The South African coastline has few bays naturally suitable for harbours and no navigable rivers.

¹ C Hänel and S Chown (1998) An Introductory Guide to the Marion and Prince Edward Island Special Nature Reserves. Department of Environmental Affairs and Tourism, Pretoria.

South Africa, its neighbours, provinces and provincial capitals



The climate is mainly temperate and dry, with an average annual rainfall of only 464 mm. However, there are large variations in temperature and rainfall across the country. The west coast has a mean annual temperature 6°C lower than the warmer east coast. About 20% of the country, in the dry north-west, receives on average less than 200 mm per annum. Sixty-five percent of the country receives less than 500 mm per annum and is therefore not suited to dryland farming. Some mountain areas receive on average more than 1 400 mm a year. Rainfall in the west falls mainly in winter, while the eastern parts receive summer rain. Droughts are common. South Africa is a water scarce country. Due to abundant sunshine and high evaporation rates, only about 9% of rainfall, on average, reaches rivers as run-off, compared to the worldwide average of 31%. Most of the fresh-water is produced to the east on the country, with more than 60% of the river flow arising from only 20% of the land area. The Orange River (now called the Gariep River) is the largest river basin in South Africa, with a total catchment area of 1 million km². South Africa has very little groundwater as the country is mainly underlain by hard rock formations. Climate change models predict that most of South Africa will become hotter and drier, with the highest temperature increases predicted for the west and north of the country.

2.2. The people of South Africa

The South African population is diverse, consisting of the following groups: the Nguni people (consisting of the Zulu, Xhosa, Ndebele and Swazi); the Sotho-Tswana people (including the Southern, Northern and Western Sotho); the Tsonga; the Venda; Afrikaners; English; so-called Coloureds; Indians, and small numbers of Khoi and San people. In addition, people of various cultural backgrounds have immigrated to South Africa, from the rest of Africa, Europe and Asia.

South Africa has eleven official languages: (listed alphabetically) Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, siSwati, Tshivenda and Xitsonga. The most spoken mother tongues are isiZulu, isiXhosa, Afrikaans, Sepedi, English and Setswana. English and Afrikaans are the dominant languages of the education, media and business sectors.

The population of South Africa is estimated to be 44.8 million (2001 census) with a population growth rate of 2.1%. The age distribution pyramid is typical of developing countries, with a large proportion of young people. However, the percentage of the population aged 0 – 14 years decreased from 34.3% in 1996 to 32.1% in 2001.

² Government Communication and Information Service (2004) South African Yearbook 2003/4. GCIS, Pretoria.

³ www.statssa.gov.za



The population of South Africa is estimated to be 44.8 million.

The socio-economic challenges facing South Africa are masked by statistical averages. Although South Africa is regarded as a middle-income developing country, income distribution is very skewed. South Africa has an estimated Gini coefficient of 0.73⁴. The Gini coefficient is an indicator of income distribution, where a value of 0 implies 100 percent equal distribution and 1 is extremely skew.

Poverty is widespread in South Africa. Half of all South African households (or more than 22 million people) could be classified as 'poor', earning less than R353 per adult per month, or approximately \$2 per day. This poverty is concentrated among Africans (61%) and female-headed households (60%). Most of the poor live in rural areas (72%). South Africa's rural population depends on pensions, welfare payments and transfers for up to 60% of their monthly income.

Poverty, unemployment and associated high crime levels are very serious concerns in South Africa. Unemployment is high and increasing. The national unemployment rate is estimated at between 26% (according to the restricted definition of people actively looking for work) and 37% (according to the broader definition). Decreasing employment opportunities in the formal sector have contributed to the expansion of the informal sector, which is estimated to provide employment to



Poverty alleviation, and eventual eradication, is a number one priority for the South African government.

⁴ Statistics South Africa (2000) Measuring poverty in South Africa. SSA, Pretoria

approximately 1.8 million people, or 12% of the labour force, contributing 7% to GDP. However, many in the informal sector are essentially under-employed.

Poverty leads to malnutrition that is estimated to affect 2.5 million children. Poverty also exacerbates health risks, such as malaria, tuberculosis and HIV/AIDS. An estimated 12.9% of the population are infected with HIV, with 1 500 new HIV infections each day. Due to the HIV/AIDS pandemic, life expectancy in South Africa dropped from 61.5 years in 1994 to 55 years in 1999. Education faces similar challenges. An estimated 17.9% of South Africans have received no education, while only 8.4% have a post-matriculation (or tertiary) qualification, leading to skills shortages in key sectors. The challenges facing the post-1994 democratic government are illustrated by the fact that in 1998, 18 million people were without basic potable water supply, while 27 million had no basic sanitation.

A commonly used measurement of human welfare is the Human Development Index (HDI), a composite, relative index which quantifies the human development of a community using measurements such as life expectancy, literacy and income, where 0 is the minimum value and 1 the maximum value. Table 1 shows the HDI for the various provinces in South Africa. These provincial averages mask huge racial differences, a legacy of South Africa's political history. For example, the average HDI for the Northern Cape (1996 figures) is estimated to be 0.648, while the HDI for the white population averages 0.91 – 0.97 and that of the black population being 0.41 for the provincial capital, Kimberley.

In order to create an environment conducive to foreign investment, the South African government has attempted to balance the need for redistribution of resources to address social and economic inequalities, with the need for fiscal discipline and protection of property rights. The key macro-eco-

Province	Area (km ²)	Area (% of country)	Population density (people per km ²)	% of total GDP	HDI (1996) ⁵	Child Mortality Rate (1998) ⁶
Eastern Cape	169 580	13.9	38	8.2	0.60	80.5
Free State	129 480	10.6	21	5.5	0.65	68.1
Gauteng	17 010	1.4	520	33.9	0.73	45.3
KwaZulu-Natal	92 100	7.6	102	15.5	0.63	74.5
Limpopo	123 910	10.2	43	6.5	0.57	52.3
Mpumalanga	79 490	6.5	39	7.2	0.62	63.7
North West	116 320	9.5	32	7.3	0.62	58.1
Northern Cape	361 830	29.7	2	2.0	0.65	55.5
Western Cape	129 370	10.6	35	13.8	0.73	40.3

Poverty can be defined and measured in various ways. A common definition is a lack of resources to meet basic needs, such as food, clothing, shelter and basic health care. Poverty also represents an inability to meet higher-order needs such as education, personal fulfilment, recreation and freedom. More recent definitions of poverty include concepts such as risk, vulnerability, powerlessness and 'lack of voice'. This translates into an inability to participate in family and community life, and feelings of powerlessness and social exclusion. Poverty alleviation, and eventual eradication, is a number one priority for the South African government.

economic policy, the Growth, Employment and Redistribution (GEAR) strategy, aims to implement stable and co-ordinated trade and industrial policies that are market-oriented and promote exports. GEAR's core elements are budget reform, debt control and reduction of fiscal deficits, inflation targeting, restructuring of state assets, expanded infrastructure to address service deficiencies and backlogs and expanded trade and investment flows. This need to balance national social imperatives with global economic realities has led to tensions in some sectors, especially with regard to privatisation of resources and payments for services.

⁵ CJ Meintjies (2001) Guidelines to Regional Socio-Economic Analysis. Development Bank of Southern Africa, Midrand.

⁶ South African Health Review (1999) Health Systems Trust, Durban.

2.3. The macro-economic context of South Africa

South Africa has the largest economy in Africa. In the past, the South African economy was based chiefly on primary production and extraction of resources. The southern African sub-continent contains some of the oldest rocks on earth and South Africa is well endowed with mineral resources, including gold, platinum, diamonds, copper, iron, manganese, vanadium and coal. South Africa holds the world's largest percentage of ore reserves of manganese (80%), chromium (68%), platinum group metals (56%), vanadium (45%), gold (39%), and alumino-silicates (37%). It is also the leading holder of ore reserves of vermiculite, andalusite, zirconium, titanium, antimony, fluorospar and phosphate rock. Mining is the single most important earner of foreign exchange in the economy, generating 41% of total exports in the 1990s. However, the contribution of mining to national Gross Domestic Product (GDP) has declined, from 8.7% in 1995 to 6.1% in 1999⁷.

Agriculture is also an important sector. Although the percentage contribution to GDP has declined in recent years, agriculture is socially important, being the main employer in rural areas where few other employment options exist. The agricultural sector provides materials for the important manufacturing sector and is an important contributor to national food security. The majority of land (86%) in South Africa is zoned for agriculture, of which 13% is used for cultivation of crops. Agriculture contributes about 4.1% to GDP, but employs over 13% of the population. However, wages in the rural areas are extremely low. The sector uses almost 50% of all fresh-water in South Africa. South Africa's forestry plantations, which utilise about 1.5% of the cultivated land, use about 3% of the available surface water.

The South African economy has shifted away from primary sectors, with secondary and tertiary sectors becoming more important. The primary sector contributes approximately 10,6% to GDP, compared to 24,5% from the secondary sector (manufacturing and industry) and 64,9% from the tertiary

The majority of land (86%) in South Africa is zoned for agriculture.



⁷ SA Institute of Race Relations (2001) South Africa Survey 2000/2001. SAIRR, Johannesburg.