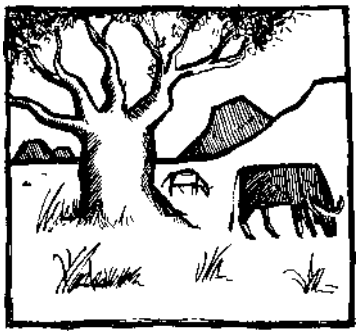


NATIONAL FACT SHEET

LAND DEGRADATION
South Africa

Cause for concern

Although only about 13,5% of South Africa is arable, 80% of the land is used for agriculture. The country is semi-arid and experiences catastrophic droughts. Many centuries of exploitation and unjust land policies have left large tracts of South Africa degraded. Global climate change threatens to worsen desertification in some parts of the country, making it even more difficult to feed a rapidly growing population.

Soil degradation alone costs South Africa nearly R2 billion per annum. Significant costs are incurred because of erosion of arable lands, which leads to siltation of dams and increased costs of water purification. The overall cost of land degradation is much higher, however, as it includes other problems such as loss of plant cover, alien plants, bush encroachment and deforestation.

We're committed to act

In January 1995 South Africa signed an international agreement, the United Nations Convention to Combat Desertification (UNCCD). Because of this, the government, through the Department of Environmental Affairs and Tourism (DEA&T), is committed to developing a National Action Programme (NAP) to combat land degradation.

Up-to-date information

The first stage in developing a NAP entailed gathering information on the state of land degradation in South Africa. The DEA&T contracted the National Botanical Institute (NBI) and the Programme for Land and Agrarian Studies (PLAAS) to carry out a national research project on land degradation. This research drew on census figures, the scientific literature, and information provided by agricultural extension officers and resource conservation technicians who participated in 34 consultative workshops held throughout the country during 1997 and 1998.

The information is available in various forms, including technical and popular versions of the research report, a series of factsheets and a web-site: www.nbi.ac.za/landdeg.

There is evidence that global climate change is becoming a reality. At various weather stations in South Africa, summer temperature increases of 0,8–2,7°C have been measured over the last 50 years. An unusually dry period during the last two decades of the twentieth century raised concerns that average annual rainfall could be decreasing. One of the climate change predictions is that weather patterns will become more extreme. However, people rather than climate have been most responsible for land degradation in South Africa.

In South Africa, policies such as the Land Acts and 'betterment' led to the creation of densely populated communal areas. From the colonial era, policies designed to secure rural labour for the mines, industry and commercial agriculture led to depressed prices for agricultural products and labour shortages in the communal areas. Coupled with inappropriate land use practices and poor government support, this resulted in some of the best agricultural land in South Africa becoming seriously degraded. In contrast, financial incentives, agricultural extension services and farmer support groups helped to enhance productivity and the quality of the land in the more sparsely populated commercial farming areas.

The status of land degradation in South Africa is presented in three maps (see over):

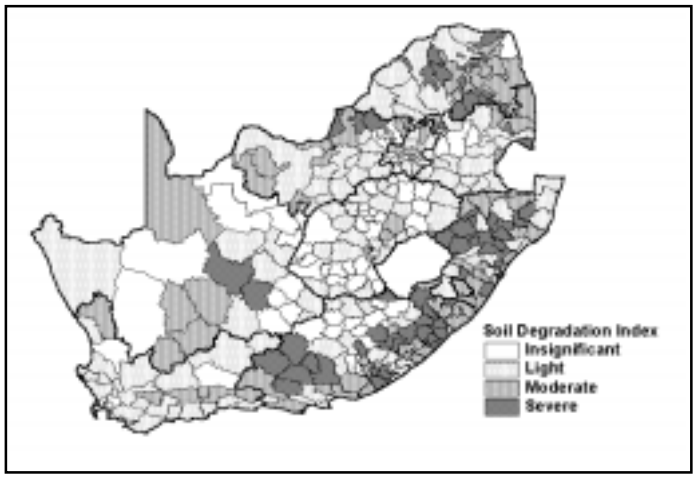
- Soil degradation index (SDI)
- Veld degradation index (VDI)
- Combined index of soil and veld degradation (CDI).

The soil and veld degradation indices are measures of the severity and rate of soil and vegetation degradation in the provinces. The combined degradation index is the sum of the provincial soil and veld degradation indices.

Comparative land degradation statistics for the nine provinces of South Africa

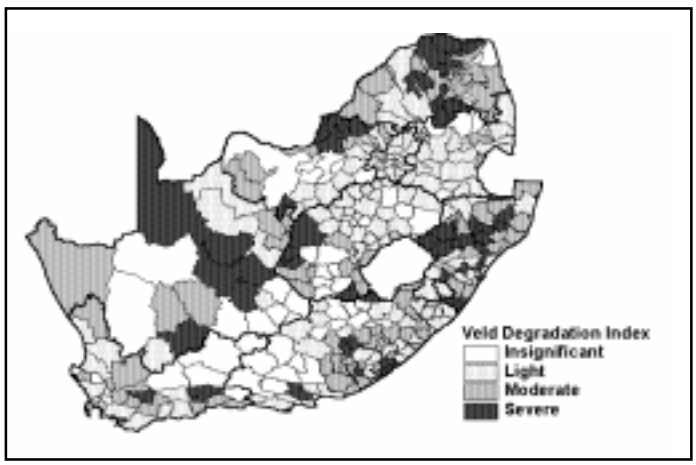
Province	Area (km²)	Population (1995)	Agriculture as % GGP (1995)	SDI	VDI	CDI
Eastern Cape	169 600	6 481 300	5,4%	200	116	316
Free State	129 480	2 782 470	10,4%	48	86	134
Gauteng	18 810	7 048 300	0,6%	113	31	143
KwaZulu-Natal	92 180	8 713 100	5,6%	253	187	440
Mpumalanga	78 370	3 007 040	7,8%	143	81	223
Northern Cape	361 800	742 030	10,0%	92	140	232
Northern Province	123 280	5 397 200	8,0%	255	189	444
North West	116 190	3 351 790	8,9%	149	122	270
Western Cape	123 370	3 721 200	6,5%	77	93	170
TOTAL	**1 219 080**	**41 244 430**	**4,6% GDP**			

CDI = Combined Degradation Index, GDP = Gross Domestic Product, GGP = Gross Geographic Product, SDI = Soil Degradation Index, VDI = Veld Degradation Index



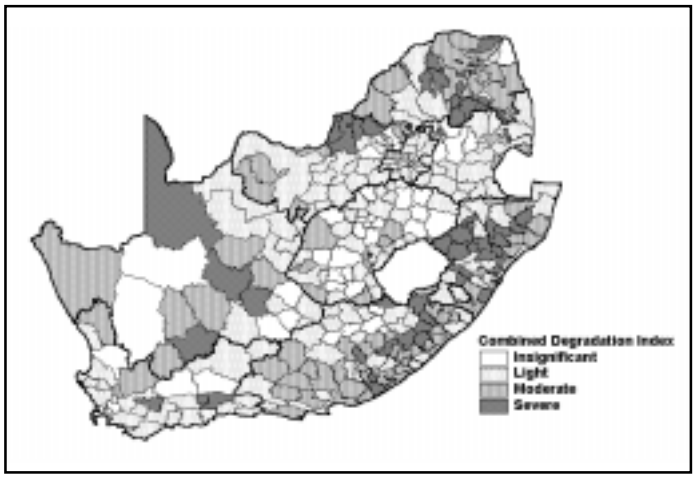
An index of soil degradation

Soil degradation, in particular erosion by wind and water, is much worse in communal areas than in commercial farming areas. Steeply sloping grazing lands in the eastern parts of the country are at greatest risk.



An index of veld degradation

Rural poverty, historical land distribution policies and inappropriate land use practices have resulted in veld degradation being most severe in the communal areas. The most widespread veld degradation problem in South Africa is change in the composition of plant species. In many communal areas loss of plant cover is a problem. Bush encroachment and alien plants are generally more of a problem in commercial farming areas.



A combined index of land degradation

If degradation of both soil and veld are taken into account, the problem appears most severe in the communal districts of the Northern Province, KwaZulu-Natal and Eastern Cape. Areas with steep slopes, high temperatures, low annual rainfall, high stocking densities and high levels of unemployment are at greatest risk. The most degraded commercial farming areas are in the Northern Cape and Western Cape.

What needs to be done?

Future global economic trends are uncertain but are sure to influence agricultural policy in South Africa. Whether rural resource use decreases, increases or intensifies, it is essential that sustainable land use policies and practices take into account South Africa's unique historical conditions. The review of land degradation clearly showed that in South Africa both socio-political and environmental factors have had a significant impact on the land.

Although the communal areas are in greatest need of government support to combat land degradation, it is the commercial farming areas that currently contribute most to South Africa's food security. It is therefore essential that the government continue to support sustainable land use practices in these areas.

The agricultural statistical services must be revived in order to provide reliable data for land use planning in both communal and commercial farming areas, particularly in respect of the threat of global climate change.

Where can I get more information?

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Department of Water Affairs & Forestry, Private Bag X313, Pretoria, 0001
Tel: (012) 336 8437 Fax: (012) 323 2123 www-dwaf.pwv.gov.za
Environmental Monitoring Group, Desertification Project, PO Box 18977, Wynberg, 7824
Tel: (021) 761 0549 Fax: (021) 762 2238 www.home.global.co.za/~emg
National Botanical Institute, Kirstenbosch Research Centre, Private Bag X7, Claremont, 7735
Tel: (021) 762 1166 Fax: (021) 797 6903 www.nbi.ac.za/landdeg
National Department of Agriculture, Agricultural Land Resource Management, Private Bag X120, Pretoria, 0001
Tel: (012) 319 7684 Fax: (012) 329 5938 www.agric.za
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National Department of Agriculture | National Botanical Institute | Environmental Monitoring Group | Department of Environmental Affairs & Tourism | Programme for Land & Agrarian Studies | Department of Water Affairs & Forestry

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