

**COUNTRY PROFILE
ON
ENVIRONMENT**

SOUTH AFRICA

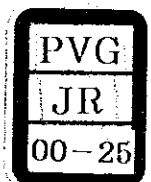
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JAPAN INTERNATIONAL COOPERATION AGENCY



USERS GUIDE: Contents of the Report

This report consisted of the following Chapters on environmental information of the country.

1. Keywords of the Environment

Various features and principal environmental issues and their related matters of the country are schematized within 1 page to easily understand the country's natural and social environmental issues on the whole.

2. Fact Sheet

Principal indices and natural and social environmental characteristics of the country such as economy, demographic statistics, socio-economic conditions, various important resources available in the country are described.

3. Institutional Context

3.1 Environmental Agency

Matrix table on governmental agencies related to the environmental issues in the Chapter 4 is described to grasp the role of the agencies easily. Responsibilities and organizational structure of the principal responsible agency for the environment, and responsibilities of related agencies are explained. Main activities of the various environmental non-governmental organizations are described in the table.

3.2 National Environmental Policy

Environmental policy of the country such as national environmental action plan is explained.

3.3 Environmental Laws and Regulations

Environmental laws and regulations of the country including their status of applications are described.

4. State of the Environment

In this Chapter, status of the various environmental issues as follows are covered with information on related agencies, related standards, laws and regulations, examples of the issue are explained. In the section 4.3, other kind of considerable environmental issues in the country are described based on the report which local consultant prepared.

4.1 Air Pollution	4.7 Waste Water Management
4.2 Water Pollution	4.8 Forest Conservation/Desertification
4.3 Other Pollution	4.9 Biodiversity
4.4 Waste Management	4.10 Natural Resource Management
4.5 Energy Conservation and Alternative Energy	4.11 Natural Disaster
4.6 Water Supply	4.12 Environmental Education

5. International Relationship

Status of the implementation of the economic and technical assistance projects in the country are outlined. International conventions and agreements on environment which the country agreed and ratified are listed up in section 5.1, and environmental projects which are funded and/or implemented in the country by donor countries and international organization in the section 5.2. In addition, location map of the project funded and implemented by using the Official Development Assistance (ODA) of Japanese government are showed.

6. Sources of Information

Governmental environmental agencies related institutions and NGOs are listed with the some information such as contact address and e-mail address.

7. References

References used in the report are listed.



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1. KEYWORDS OF THE ENVIRONMENT

1.1 Features of the Country

	Related pages
<p>① Gross Domestic Production(GDP) US\$2,150 per capita (Japan : US\$33,857, China : US\$361) Total : US\$125 billion</p>	· 2. Fact Sheet p.3
<p>② Middle-Income Country & Income Distribution Inequality Unemployed population: 32% Concentration of poverty into rural areas: 75% of total poor</p>	·
<p>③ Shortage of Water Resources 26th water unavailability per person</p>	· 2. Fact Sheet p.3

1.2 Keyword of Environmental Issues

	Related page
<p>① Soil degradation</p> <ul style="list-style-type: none"> · Inappropriate crop production method (ex. shifting cultivation) · Deforestation · Pesticides and fertilizer pollution 	4.8 Forest conservation p. 22
<p>② Water pollution</p> <ul style="list-style-type: none"> · Industrial effluent (ex. from mining activity) · Chemical contamination from disposal site · Drinking water · Untreated domestic wastewater 	4.2 Water pollution p. 17 4.4 Waste management p. 19 4.6 Water supply p. 21 4.7 Waste water management p. 21
<p>③ Mineral industrial pollution</p> <ul style="list-style-type: none"> · Air pollution · Water pollution · Waste management 	4.1 Air pollution p. 16 4.2 Water pollution p. 17 4.4 Waste management p. 19
<p>④ Natural disaster</p> <ul style="list-style-type: none"> · Drought 	4.11 Natural Disaster p. 25

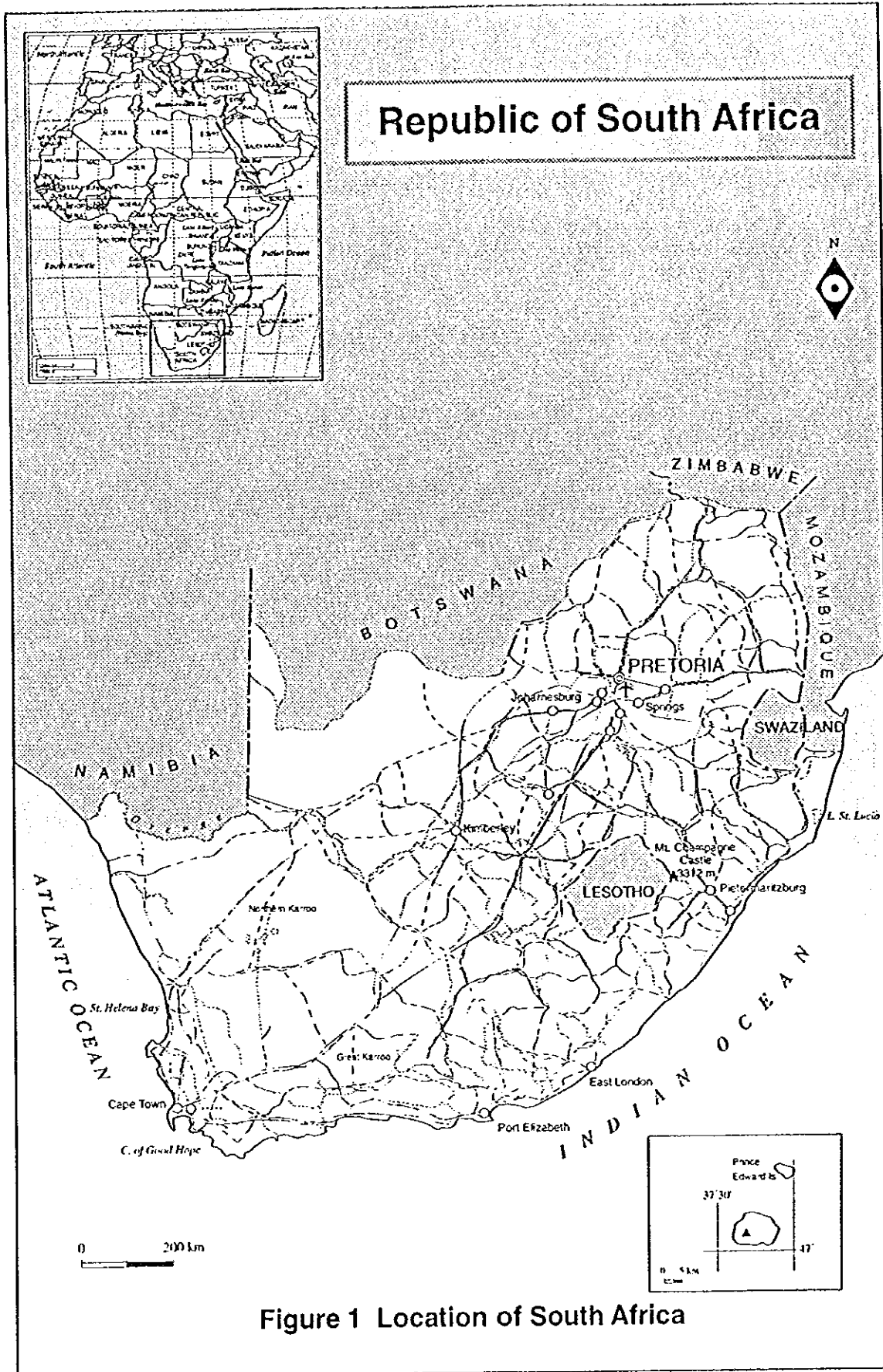


Figure 1 Location of South Africa

Source: Data Atlas 1994 - 1997

2. FACT SHEET

2.1 Socio-economic Index

Index	Data	Data year	Reference
Population	41.47 million (annual average incremental rate : 2.2% (1990~95))	1995	b)
Race	Black person 75.2%, Caucasian 13.6%, Half breed 8.6%, Indian family 2.6%	(no information)	e)
Religion	Christianity : 77%, Hinduism, Islam	(no information)	e)
Literacy rate	Adult female : 79% Adult male : 80%	1990	b)
Urban Population rate	51% (21.07 million)	1995	b)
Life expectancy	63 (1990~1995 average)	1990-95	b)
Under-5 mortality rate	69 (per 1,000)	1993	b)
GNP ¹	\$130.9million (\$3,160/person)	1993	b)
GDP ¹	\$136million (\$3,150/person)	1993	b)
GDP structure	Agriculture : 5% Industry : 39% Service industry & others : 56%	1993	b)
Prime industry	steel, oil product, machinery, chemical product, textiles, livestock farming	1996	e)
Prime resource	chrome, antimony, coal, iron, manganese, nickel, fluorite, tin, uranium, vanadium, diamond, corn, wool, sunflower, grain, tobacco, sugar cane, fruit, peanut	1996	e)
Safe water (% of population with access) ²	(no information)	(no information)	
% of seweraged population ³	Urban : 7% Rural : 7%	(no information)	
Human Development Index (HDI)	0.717 (World rank 89, GDP per capita rank 80 in same year)	1995	d)

*1 : The estimated value of the GNP was exchanged and adjusted from local currency into US\$ by means of 3-year average of exchange rates. The estimated value of the GDP was presented in US\$ of 1993 based on the exchange rate.

*2 : "Safe water" includes treated surface water, and untreated water which is pumped up from protected spring / excavated well and sanitary well.

*3 : "Sewered population" should be met conditions that the population in urban area can use public sewerage and indoor facility such as dug hole outdoor toilet, pouring water toilet, private sewerage system, public community toilet, and similar facilities, and that the population in rural area can use dug hole outdoor toilet, pouring water toilet, or other proper treatment methods.

2.2 Geographical Characteristics

Area : 1,221,000 km ² (about 3.2 times as Japan's)
Geographical features : rich in mineral deposits such as Witwatersrand quartzites (gold), the Bushveld Igneous complex (platinum) and the coal deposits in the formation of the Karoo sediments
Highest place : (no information)

Source: a), f)

2.3 Meteorological Characteristics

Climate : (no information)
Season : (no information)
Average temperature : (no information)
Average annual rainfall : (no information)
Climatic classification : classified as decreasing in rainfall from the east to the west
<ul style="list-style-type: none"> • The warm Mozambique current brings moist, warm, humid conditions to the east coast of South Africa. • The cold Benguela current affects the west coast of South Africa, often causing foggy but generally dry conditions. • The mountains of the east coast cause orographic thunderstorms to occur all year and also form a barrier to the movement of warm, moist air to the interior. • The Highveld (the area inland of the Great Escarpment and to the north) is influenced by the Inter Tropical Convergence Zone (ITCZ) whereby large air masses meet and cause thundershowers in the late afternoon in summer. However, due to the movement northwards of the ITCZ, the Highveld winters are cold and dry. • The interior of the land, including the Free State, is influenced by the fact that it is landlocked and therefore has extremes of temperatures throughout the seasons has very low rainfall throughout the year. • The Cape south and south-west coast is influenced in winter by the formation and movement of cold fronts which bring rainy and cold conditions.

Source: a)

2.4 Ecological Characteristics

Biogeographical feature: 14 vegetation-based ecosystem under four main categories; forest, thicket, woodland and grassland. In addition, aquatic and anthropic ecosystems :
1) dry evergreen forest, 2) dry deciduous forest, 3) montane forest, 4) swamp forest, 5) riparian forest, 6) thickets, 7) chipya woodland, 8) miombo woodland, 9) kalahari woodland, 10) mopane woodland, 11) munga woodland, 12) terminalia vegetation, 13) dambo grassland, 14) flood plain and swamp grassland, 15) aquatic (lakes and rivers), 16) anthropic (cropland and fallow, forest plantations and built-up areas)
Identified animals and plants : Southern Africa has 10% of all plant species that occur in the world. South Africa is also the only country to contain one of the world's six Floral Kingdoms - the Cape Floral Kingdom (Fynbos). One third of South Africa's plant species occur in this kingdom.
Protected area : (no information)

Source: a)

2.5 Hydrological Characteristics

Main river : Orange
Lakes : St. Lucia

Source:

3. INSTITUTIONAL CONTEXT

3.1 Environmental Agency

3.1.1 Governmental Agency

(1) Environmental issues and Related Governmental agencies

(see "6. SOURCES OF INFORMATION" on each agencies and its contact address.)

Governmental Agency	4.1	4.2	4.3		4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	4.12
	Air pollution	Water pollution	(1) Noise	(2) Ionizing Radiator	Waste	Energy	Water Supply	Waste Water	Forest	Biodiversity	Resources	Disaster	Education
Department of Water Affairs and Forestry (DWAF)	○	○	na	na	○	—	na	na	○	—	○	○	—
Department of Environmental Affairs and Tourism (DEAT)	na	—	na	na	○	—	na	na	—	○	—	○	○
Department of Agriculture (DA)	na	—	na	na	—	—	na	na	—	—	—	○	—
Department of Minerals and Energy (DME)	na	—	na	na	—	—	na	na	—	—	—	○	—
Department of Constitutional Development (DCD)	na	—	na	na	—	—	na	na	—	—	—	○	—
Minister of Water	na	—	na	na	○	—	na	na	—	—	—	—	—
Local authorities (planning and development of waste disposal facilities)	na	—	na	na	○	—	na	na	—	—	—	—	—
Eskom	na	—	na	na	—	○	na	na	—	—	—	—	—
Others	na	—	na	na	—	—	na	na	—	—	—	—	—

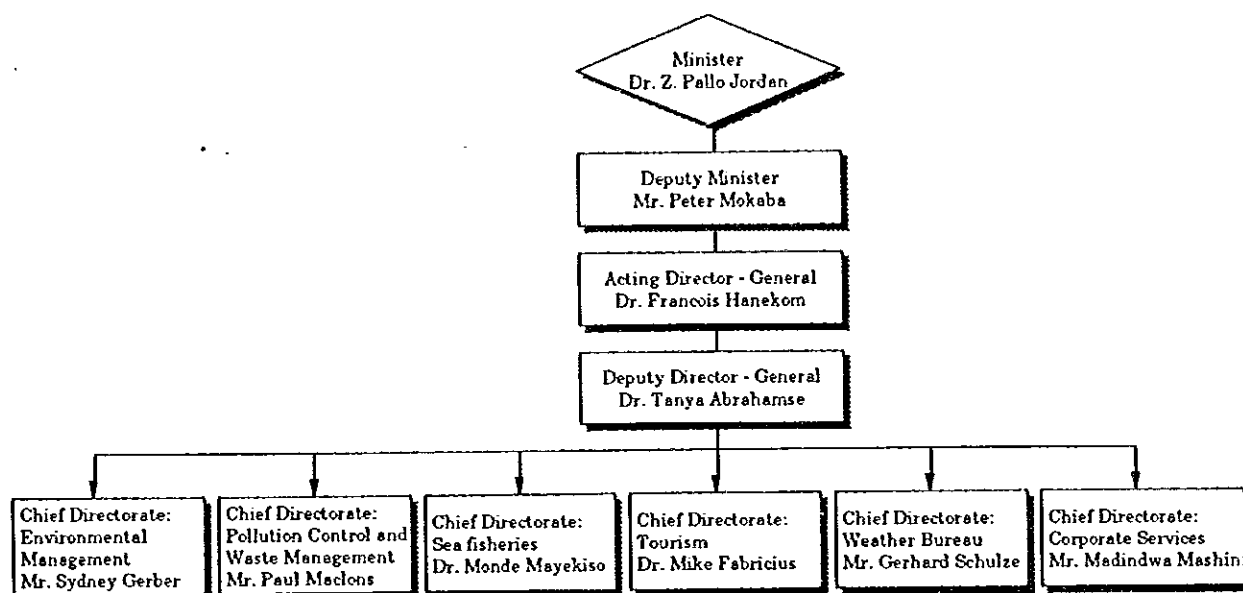
Note:1) : ○ → related — → No relation na → no information

2) : 4.3(1) Noise, 4.3(2) Ionizing radiation, 4.4 Waste management,
4.5 Energy conservation and alternative energy, 4.7 Waste water management,
4.8 Forest conservation / desertification, 4.10 Natural resource management,
4.11 Natural disasters, 4.12 Environmental education

3) : Refer to each section related to other agencies when column "Others" is filled by ○.

(2) National Environmental Authority (ANAM)

1) Department of Environmental Affairs and Tourism (DEAT)



Institutional Structure of DEAT

DEAT Chief Directorates, Directorates and the Activities and Initiatives

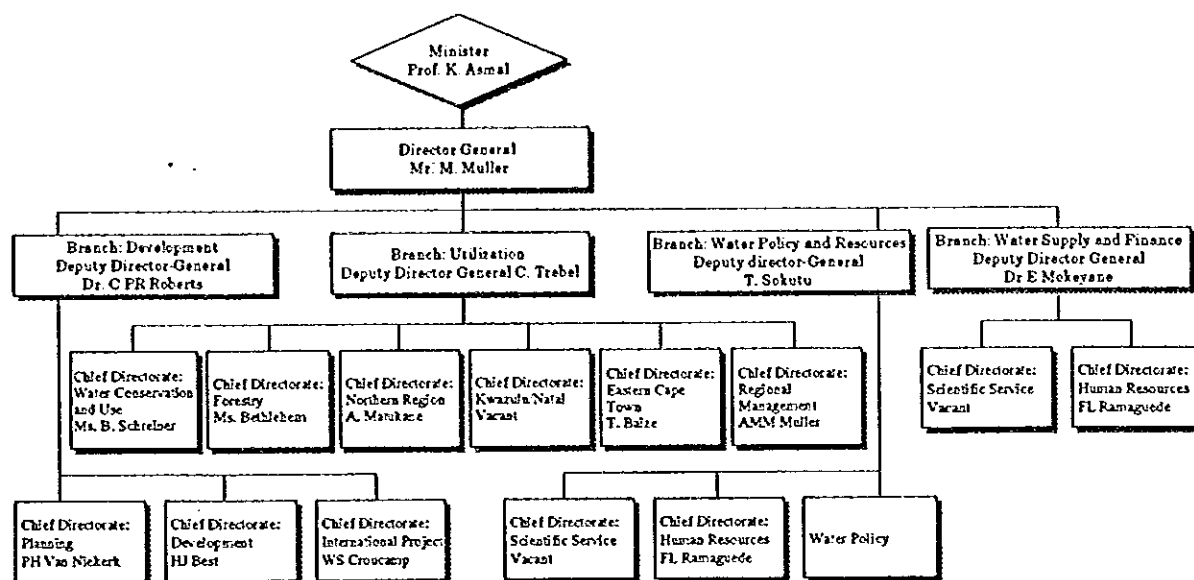
Chief directorate	Objectives	Activities and initiatives
Environmental Management	<ul style="list-style-type: none"> • Ensure that international obligations are met • Finalise Endangered Species Act, Wetland Conservation Bill, White paper on Conservation and Sustainable Use of South Africa's Biological Diversity • Develop strategies for effective implementation of national legislation and policy • Environmental education • Implementation of World Heritage Convention • Production of State of the Environment Reports • Provision of general GIS service • Effective management of ELA regulations • Development of Integrated Environmental Management philosophy • Establishment of Environmental Management Framework for all nine provinces • Provision of Environmental Potential information in the form of ENPAT Atlases • Development of Coastal Zone Management Policy 	<p>Spatial development initiatives - a short term interdepartmental investment strategy led by the Department of Trade and Industry, with the overarching aim of job creation and attracting investment, with the Department of Transport in terms of export-led industries at coastal locations. DEAT has developed an Environmental Management Framework (EMF) for the SDI programme. DEAT has become a critical role-player in the overall SDI programme to ensure that development is in line with international norms and standards. The Department is in the process of negotiating funding for compiling the provincial EMFs to ensure that development is not slowed down by the lack of information for decision-making or lack of capacity.</p> <p>Natural Environment -</p> <ul style="list-style-type: none"> • Species conservation, • Ecosystems • National wetlands inventory, • Research • Interdepartmental cooperation, • Protection <p>Environmental Impact Management -</p> <ul style="list-style-type: none"> • Environmental management systems • Environmental impact assessment of tourism on Marion island • Environmental potential atlases - ENPAT • Environmental impact regulations • Environmental resource economics • Coastal zone management <p>Sustainable Development -</p> <ul style="list-style-type: none"> • Agenda 21 and local agenda 21, • State of the environment report • Cultural resource management, • Environmental research • Environmental education
Pollution Control and Waste Management	<ul style="list-style-type: none"> • Development of a National Capacity Building Framework for the National Waste Management Strategy (NWMS) • Compliance with Basel convention, Montreal Protocol • Reduction of industrial air pollution in SA by 5% by implementing air pollution reduction programmes 	<p>Air pollution Control -</p> <ul style="list-style-type: none"> • Control of noxious and offensive gases • Smoke control • Dust control • Motor vehicle emissions • Research and monitoring of air pollution • Protection of the ozone layer • Current state of air pollution in South Africa

Chief directorate	Objectives	Activities and initiatives
	<ul style="list-style-type: none"> • Review of national guidelines for air pollution • Initiate process to review Atmospheric Pollution Prevention Act • Establishment of a national air pollution source inventory/database in conjunction with the Weather Bureau • Promote awareness of air quality and control issues nationally • Improve media and public relations • Finalisation of the Integrated Pollution (IP) and Waste Management (WM) Policy document • 50% completion of NWMS • Proactive process development on how to deal with National Crises and Commissions of Enquiry • A National disaster Management Programme/Plan • Development of appropriate legislation and regulatory framework on IP, WM and NWMS • Development and Implementation of a Pollutant Release and Transfer Register • Implementation of a system to optimally utilise international obligations, interventions and liaisons • Implementation of a Holistic Pollution Management system • Development of sustainable waste collection systems for disadvantaged communities • Development of a communication plan to enable greater public/industry awareness • National Waste Registration and Data Base system 	<p>Pollution Control –</p> <ul style="list-style-type: none"> • Subdirectorate: Hazardous materials. Objective is to reduce the polluting and negative impact of hazardous waste and materials on the environment, health and safety and to promote the environmentally sound and safe management of such materials in a sustainable manner through effective coordination, both nationally and internationally • Basel convention • Lome convention • Persistent organic pollutants (POPs) • Pollutant release and transfer register (PRTR)
Sea fisheries	<ul style="list-style-type: none"> • Passing of Living Marine Resources Bill through Parliament • Publication of regulations promulgated in terms of the Bill • Continue with implementation of the new Marine Fisheries Policy • Initiation of a subsistence fishery based, as a start, on west coast rock lobster, abalone, snoek and hottentot • Initiation of a longline fishery for hake • Honouring of South Africa's numerous international commitments and obligations relating to fisheries • Advancing strategic planning and restructuring of Sea Fisheries in order to gear up for improved service delivery • Upgrade the monitoring, control and surveillance capacity of Sea Fisheries • Conducting an assessment of the department's long term marine vessels needs and management options • Pursue training initiatives aimed at achieving representivity, particularly in the technical fields 	<p>Research</p> <ul style="list-style-type: none"> • Inshore Resources • Offshore Resources • Resource Assessment and Modelling • Sardine and Anchovy Recruitment (SARP) • Whole Systems <p>Marine Pollution control –</p> <ul style="list-style-type: none"> • Sea fisheries research Institutes Mussel Watch • Oil spill response • Environmental Management Programmes for SOEKOR and MOSSGAS <p>Improved access to natural resources</p> <p>Environmental Education</p>
Tourism	<ul style="list-style-type: none"> • Establishment of the Tourism Growth Fund to ensure a funding base for marketing and development of tourism • Progressing with the SATOUR transformation process to establish a vibrant international marketing programme • Establishing the Collaborative Tourism (Cluster) process as a platform for all tourism stakeholders to develop and implement a long term tourism vision and strategy 	<p>Tourism Development and Planning –</p> <ul style="list-style-type: none"> • Tourism infrastructure investigation project • Satellite national tourism accounts and economic impact studies project • Tourism information management system project • Tourism development guidelines • Spatial development initiatives • Tourism education and training <p>Tourism Safety and Security</p> <ul style="list-style-type: none"> • Tourism Safety Task Group (TSTG)

Chief directorate	Objectives	Activities and initiatives
	<ul style="list-style-type: none"> • Establishment of a Sectoral Tourism Training Authority and a Tourism Training Academy • Establishment of a national tourism development database on GIS software platform • Conducting a needs analysis of tourism-related infrastructure, as a basis for forward planning • Contributing to and guiding the development of tourism in Southern Africa, via the channels of SADC and RETOSA • Launching a domestic tourism information and awareness campaign through provincial workshops, a TV series and the launching of Tourism Month during September <p>Establishing a tourism SMME financing and assistance programme</p>	<p>Tourism Business Development and National Liaison</p> <ul style="list-style-type: none"> • International tourism marketing assistance scheme (ITMAS) • Tourism investment promotion • Coordination and liaison with tourism stakeholders • Cooperation with other government department
Weather bureau	<ul style="list-style-type: none"> • Implementing the recommendation of the SETI report • Improvement of climate databank system • Radiation monitoring project • Weather and climate pamphlets for schools • Operational weather modification • Upgrading of communication network • Integrated Vaal River forecast system • Seasonal and EL Nino prediction • Acquisition of meteorological data from commercial aircraft • Global atmosphere watch at Cape Point Station • Redesigning meteorological training system • Develop the weather watch service • Commercial forecasting initiative • Improve remuneration of meteorological technicians • Cheaper rain gauge • Replacing mechanical observation instrumentation • Training meteorological observers 	<p>Forecasting --</p> <ul style="list-style-type: none"> • Scaling down of forecasting services • Modelling and short term forecasting • Upgrading and Improving operations and research in the Weather Bureau • Aeronautical forecasting • General forecasting <p>Climate Change</p> <p>Climatology and Observational networks --</p> <ul style="list-style-type: none"> • Climate data bank • Baseline radiation station • Internet • Upgrading of upperair systems • Phasing out of mechanical meteorological recording instruments • Improving of the weather radar network • Data collecting platform (DCP) • Drifter buoy programme <p>• Local user terminal (LUT)</p>
Corporate services		<p>Human resources management</p> <ul style="list-style-type: none"> • Personnel provisioning and structuring • Training • Literacy training • Specialized training <p>Management Advisory Services --</p> <ul style="list-style-type: none"> • Work study <p>Logistical services</p> <p>Legal services</p> <p>Communication</p> <ul style="list-style-type: none"> • Liaison • Publication • Library <p>Information Technology</p> <p>Antarctica and Islands</p>

Source: a)

2) Department of Water Affairs and Forestry (DWAF)



Source: a)

Structure of the Department of Water Affairs and Forestry

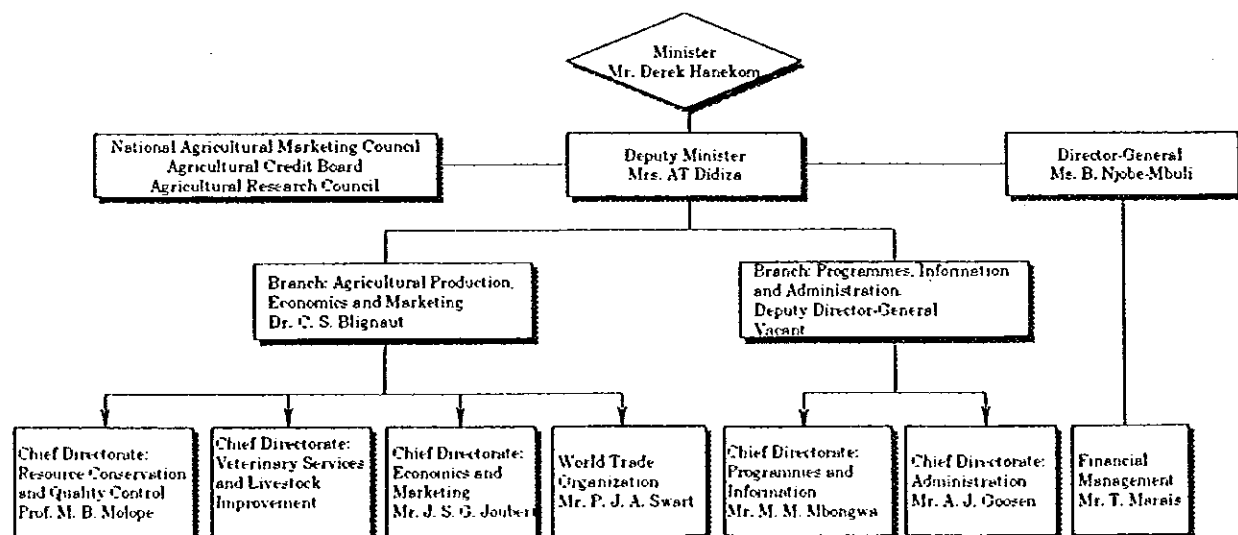
DWAF Divisions Directly Involved in Environmental Management

Division	Chief directorate	Activities
Strategic planning	Planning	<ul style="list-style-type: none"> Initiatives at global, regional and sub-regional levels towards integrated and coordinated natural resource management and use Contributions to international events such as establishment of a formal Water Sector within the Southern African Development's Community's structures and the activities of the Global Water Partnership in Southern Africa National framework for disaster management Contributions to the South African Water Law review process, the development of a Water Tariff Policy and the National Water Conservation Campaign
International liaison	International projects	<ul style="list-style-type: none"> Lesotho Highlands Water Project Maguga Dam site in Swaziland KwaNdebele-Moutse Augmentation Project Capacity building of the Community Water Supply and Sanitation branch from the British Department for International Development Official opening of the National Community Water and Sanitation Institute Finnish assistance to cover capacity building in community based forestry projects, nurseries, involvement and empowerment of women's groups and a social forestry programme
Water utilisation	Water conservation and use	(no information)
Water quality management	Water conservation and use	<ul style="list-style-type: none"> Mission statement: the protection and improvement of the water environmental quality in order to ensure sustainable utilisation of water resources Integrated catchment management which entails: <ul style="list-style-type: none"> managing the catchment and the associated water as one system acknowledging both the direct and indirect effects that actions in one part of the system may have on other parts involvement of all role-players in the catchment Waste management – problem of hazardous waste disposal in South Africa Development of the Integrated Pollution Control and Waste Management Policy Development of a National Waste Management Strategy
Water conservation	Water conservation and use	(no information)
Catchment management	Water conservation and use	(no information)

Division	Chief directorate	Activities
Forestry development	Forestry	<ul style="list-style-type: none"> Development of a National Forestry Action Plan which translates the vision of the White Paper on Sustainable Forest Development in South Africa into concrete and discrete actions
Community forestry	Forestry	<ul style="list-style-type: none"> To contribute to the social and economic upliftment of all peoples of South Africa by promoting the responsible and sustainable utilisation of our natural resources and encouraging tree centered development in South Africa To ensure the initiation and development of tree planting scheme in the interests of communities, including a seed supply outlet and the rendering of general advice on tree planting to government and the public as well as facilitating the sustainable management of natural forests and woodlands, including woodlots, to ensure benefit to local communities
Commercial forestry	Forestry	<ul style="list-style-type: none"> Major thrust of the National Forestry Action Plan is to increase the commercial and industrial forestry sector to the overall economic growth of South Africa
Conservation forestry	Forestry	<ul style="list-style-type: none"> Main function – the conservation and optimal utilisation of natural forests and woodlands Aims to achieve this through the development of policy, planning, monitoring the state of the resource, evaluation and reporting
Institutional and social development	Water services	<ul style="list-style-type: none"> Takes responsibility for ensuring that a people driven development approach is adopted on all projects and the building of institutional frameworks in which all role players are empowered to take responsibility for their constitutional obligations
Community water planning	Water services	(no information)
Institute for water quality studies	Scientific services	<ul style="list-style-type: none"> Mission: provide the national water quality function of DWAF with scientific and technical information, guidelines and procedures required to address the management and protection of the quality of the water environment Assessment and interpretation of water quality as it affects the safety of water supplies Implementation and development of an information system Framework and conceptual design of two monitoring programmes - the National Aquatic Ecosystem Biomonitoring Programme and the National Microbiological Monitoring Programme
Ground water	Scientific services	<ul style="list-style-type: none"> Ground resources assessment Groundwater information system Groundwater management Groundwater development Groundwater extension service
Social and ecological studies	Scientific services	(no information)

Source: a)

3) Department of Agriculture



Structure of the Department of Agriculture

(3) Other governmental organization related to environmental issues

Organization / Outline of activities	Annual budget	Number of staff
Department of Constitutional Development (DCD) - disaster management	no information	no information
Department of Minerals and Energy(DME)	no information	no information

Source:

3.1.2 Non-governmental Organization (NGO)

Name of NGO	Established year	Main activities
a) Earthlife Africa	(no information)	(no information)
b) Endangered Wildlife Trust (EWT)	(no information)	(no information)
c) Environmental Justice Networking Forum (EJNF)	(no information)	(no information)
d) Environmental Monitoring Group (EMG)	(no information)	(no information)
e) Industrial Environmental Forum of South Africa	(no information)	(no information)
f) Keep South Africa Beautiful Association	(no information)	(no information)
g) National Monuments Council	(no information)	(no information)
h) The Fairest Cape Association	(no information)	(no information)
i) Wildlife and Environment Society of South Africa	(no information)	(no information)
j) World Wide Fund of Nature South Africa (WWFSA)	(no information)	(no information)

Source: a)

3.2 National Environmental Policy

Policy		Date of publication	Objectives	Lead Authority
General Environmental Conservation Policy	Policy	January 1994	Gives general environmental policy outlines on the following activities: environmental education; land use, nature conservation; cultural heritage; the urban environment; pollution control; conservation of natural resources; economic measures; research; and international cooperation. The development objective of the policy is a South Africa where there is equitable access to sustainable managed natural resources, safe and healthy living and working environments and a participation by society in environmental governance	DEAT
New Environmental Management Policy for South Africa	White Paper	May 1998	Sets out the vision, principles, strategic goals and objectives and regulatory approaches that government will use for environmental management in South Africa.	DEAT
Water Policy	White Paper	April 1997	Outlines the direction to be given to the development of water law and water management systems	DWAF
Integrated Pollution Control and Waste Management	White Paper	May 1997	Sets the framework within which a regulatory framework consisting of institutions, functions and legislation can be developed for integrated pollution control and waste management.	DEAT and DWAF
Sustainable Forest Development in South Africa	White Paper	1997	Defines the role of government in dealing with the forest sector. Directs, facilitates and regulates the actions of players in the forest sector. Addresses the need to adapt and strengthen the central government institutions responsible for forestry, to ensure effective implementation of policy.	DWAF
Agricultural Policy	White Paper	April 1997	Identifies the potential agricultural contribution to the growth and distribution strategy which evolved from the Reconstruction and Development Programme; stipulates roles and responsibilities of government and the private sector; identifies Department of Agriculture's contributions to achieving multi-sectoral and multi-departmental objectives.	Dept of Agriculture

Policy		Date of publication	Objectives	Lead Authority
Energy Policy	Discussion Document	1996	Promotes equitable access to basic and reasonably priced energy services. Provides for the energy supplies that industry and commerce needs to achieve economic growth and promote the kind of energy use that will not damage our environment.	DME
Population Policy	White Paper	March 1996	Forms an integral part of national development strategies, provides for the provision of a broad range of social services to improve the quality of life of the entire population, and ensures the establishment of effective mechanisms for the collection, analysis and interpretation of demographic and related socio-economic data.	Dept of Welfare and Population Development
Land Policy	White Paper	April 1997	General principles, detailed information on the state financial assistance programme, provides security of tenure to people who are vulnerable and prevents unfair evictions. A central concern has been to translate the government's commitment to social justice and the alleviation of poverty into a set of concrete land reform and land development programmes, legislation and procedures.	Dept of Land Affairs
Housing Policy and Strategy for South Africa	Policy	1995	Outlines the partnerships between the various tiers of government, the private sector and the communities, outlines the direction to be given to the development of a housing policy	Dept of Housing
Environmental Education	Discussion Document	July 1997	Serves as a broad framework from which provincial environmental departments, conservation bodies and environmental NGOs could develop provincial policies, which would reflect the unique situation in each province.	DEAT
Framework Convention on Climatic Change	Signed but not yet ratified	May 1993	The aim of addressing climate change is to minimise on a national level, the negative anthropogenic effects on climate change. Achieved by attending to situations wherein greenhouse gases are released, by implement abatement strategies and promoting sinks.	DEAT
Cultural Resource Management Policy	Planning Stage	White Paper to be completed in 1998	Provides implementation strategies and guidelines to ensure that the conservation of cultural resources is integrated into the process of environmental management.	DEAT
The Role of Environmental Resource Economics in Environmental Impact Management	Final Discussion Document and Position Statement	Integrated into the CONNEP process, project ended March 1997.	Evaluate the potential usefulness of market-based instruments for environmental impact management in South Africa.	DEAT
The Environmentally Safe Management of Dangerous Materials	Planning Stage		To establish a national policy for the import and export of wild animals across national and provincial boundaries.	DEAT
Development And Promotion of Tourism In South Africa	White Paper	May 1996	Provides a policy framework and guidelines for tourism development in South Africa.	DEAT
Coastal Zone Management Policy	Planning Stage	White paper by end of 1998	Outlines the management of South Africa's coastal areas, including inland mountain catchment areas to the continental shelf.	DEAT
A Marine Fisheries Policy	White Paper	May 1997	Improves the overall contribution from the fishing industry to the long-term vision for a democratic South Africa.	DEAT
Sanitation Policy	White Paper	November 1995	Addresses key issues surrounding sanitation: the needs and aspirations of ordinary people, in particular the need for healthy living conditions and the constraints on service delivery, especially the economic and environmental ones.	DWAF
Disaster Management	Green Paper	February 1998	Promotes the development of an effective disaster management system is realised and implemented by way of National Policy which will be reflected in the White Paper	Dept of Constitutional Development

Policy		Date of publication	Objectives	Lead Authority
Conservation and Sustainable Use of South Africa's Biological Diversity	White Paper	July 1997	Articulates the country's policy and strategy towards achieving the objectives of the Convention on Biological Diversity: the conservation of biodiversity; the sustainable use of biological resources; and the fair and equitable sharing of benefits arising from the use of genetic resources	DEAT
National Policy on The Conservation of Migratory Wild Animals	Draft Working Document	White paper to be completed end of 1998	National policy for the conservation of migratory wild animals as a guideline for the development of provincial policies and legislation, research, education and management.	DEAT
Conservation And Utilization of Reptiles And Amphibians in South Africa	Discussion Document	May 1997	Guidelines regarding the sustainable utilization and conservation of reptiles and amphibians due to the growing international pet market, illegal trade in endangered species and uncontrolled translocation of these animals.	DEAT
National Policy on the Conservation of Wetlands	Draft Document	White Paper to be completed in 1998	Guide and regulate development affecting wetlands.	DEAT
National Policy on The Use And Status of Non-Human Primates In South Africa	White Paper	1998	To delist baboon and vervet monkey from being classified as vermin or problem animals in the ordinances of the provincial nature conservation authorities. Also to protect these species from unnecessary pain and suffering during research.	DEAT
National Cycad Policy	Discussion document	1998	Conservation of cycads in South Africa to ensure uniform legislation, the marking of specimens in the wild as well as for plants to be transported from one province to another.	DEAT
National Policy on Rehabilitation of Wildlife	Planning stage		To achieve uniformity at rehabilitation centres country wide and to ensure that training and standards comply with the requirements of the national code.	DEAT

Source: a)

3.3 Environmental Laws & Regulations

Act (Relevant sections)	Brief description	Controlling body	Permitting procedure
Advertising on Roads and Ribbon Development Act, No 21 of 1940 (Sections 1, 8, 9, 10)	To regulate the display of advertisements outside certain urban areas at places visible from public roads, and the depositing or leaving of disused machinery or refuse and erection, construction or laying of structures and other things near certain public roads, the access to certain land from such roads. <ul style="list-style-type: none"> • Prohibition of depositing of articles or materials • Prohibition of erection of structures near certain roads • Restriction of access through fences along certain roads 	Department of Transport	(no information)
Agricultural Pests Act, No 36 of 1983 (Sections 1, 5, 6)	To provide for measures by which agricultural pests may be prevented and combatted; and for matters connected herewith. <ul style="list-style-type: none"> • Notification of the presence of certain pests on land • Control measures 	Department of Agriculture	(no information)
Atmospheric Pollution Prevention Act, No 45 of 1965 (Entire Act)	To provide for the prevention of the pollution of the atmosphere, for the establishment of a National Air Pollution Advisory Committee and for matters incidental thereto.	Department of Environmental Affairs and Tourism	Sections 9 - 13: Application for and issue of Registration Certificate for a scheduled process. An EIA can be requested by CAPCO
Conservation of Agricultural Resources Act, No 43 of 1983 (Sections 1, 2, 5, 6, 7, 8 and Regulations, 12, 19, 20, 25)	To provide for the control over the utilisation of the natural agricultural resources of the Republic in order to promote the conservation of the soil; the water sources and the vegetation and the combatting of weeds and invader plants; and for matters connected.	Department of Agriculture	(no information)
Constitution of the Republic of South Africa, Act No 108 of 1996 (Section 7, 24, 27, 32, 33, 38, 39, 152, 195)	<ul style="list-style-type: none"> • Establishment of environmental rights • Access to environmental rights such as food, water and social security • Promotion of a safe and healthy environment 	Department of Constitutional Development	(no information)

Act (Relevant sections)	Brief description	Controlling body	Permitting procedure
Development Facilitation Act, No 67 of 1995	To introduce extraordinary measures to facilitate and speed up the implementation of reconstruction and development programmes and projects in relation to land; and in so doing to lay down general principles governing land development throughout the Republic; to provide for the establishment of a Development and Planning Commission for the purpose of advising the government on policy and laws concerning land developmental national and provincial levels; to provide for the establishment in the provinces of developmental tribunals which have the power to make decisions and resolve conflicts in respect of land development	Department of Land Affairs	(no information)
Environmental Conservation Act, No 73 of 1989 (Entire Act)	<ul style="list-style-type: none"> • To provide for the effective protection and controlled utilisation of the environment and for matters incidental thereto. • Part I - Policy for environmental conservation <ul style="list-style-type: none"> - Conservation of natural resources, specification of protected areas • Part II - Council for the environment, committee for environmental coordination and board of investigation <ul style="list-style-type: none"> - Establishment, powers, functions and duties, constitution, meetings and decisions • Part III - Protection of natural environment <ul style="list-style-type: none"> - Provision for the establishment of a "protected natural environment", "a special nature reserve" and a "management advisory committee" for the former • Part IV - Control of environmental pollution <ul style="list-style-type: none"> - Control of littering and waste management • Part V - Control of activities which may have detrimental effect on the environment <ul style="list-style-type: none"> - Identification of activities, prohibition of undertaking of identified activities. Regulations 1182 and 1183 - Limited development area • Part VI - Regulations <ul style="list-style-type: none"> - Regulations regarding waste management, littering, noise, vibration and shock, environmental impact reports, limited development area, international conventions, treaties and agreements. General regulatory powers and exemptions to persons, local authorities and government institutions from application to certain provisions • Part VII - Offences, penalties and forfeitures • Part VIII - General provisions <ul style="list-style-type: none"> - Powers of Minister and competent authority in case of default by local authority - Powers of Minister, competent authority, local authority or government institution where environment is damaged, endangered or detrimentally affected - Publication for comment, compensations, appeals, reviews by court - Right to enter upon land 	Department of Environmental Affairs and Tourism/ Department of Water Affairs and Forestry	<p>Section 20 - permit to operate a waste disposal site</p> <p>Section 22 - permit for authorisation (ELA) to undertake prohibited activities in terms of section 21</p>
Provincial ordinances	• Provincial ordinances provide for different types of protected or conservation areas and have different schedules to list protected plants and animals	Provincial Department of Environmental Affairs and Tourism	(no information)
Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, No 36 of 1947 (Sections 1, 3 - 10)	• Registration of operators, control of equipment and application of weed killers (herbicides), pesticides and fertilizers	Department of Agriculture	(no information)
Forest Act, no 122 of 1984 (Sections 1, 5, 13, 18, 20, 22, 24, 25, 26, 73, 85)	To provide for the protection, management and utilisation of forests; the protection of certain plant and animal life; the regulation of the trade in forest produce; the prevention and combatting of veld, forest and mountain fires; the control and management of a national hiking way system and national botanic gardens; and matters connected therewith	Department of Water Affairs and Forestry	GN 1339 - List of protected trees and application form for the cutting of protected trees
Game Theft Act, No (Entire Act)	To regulate the ownership of gamier in certain instances, to combat theft and wrongful and unlawful hunting, catching and taking into possession of game and to provide for matters connected therewith	Department of Agriculture/ Department of Environmental Affairs and Tourism	(no information)
Hazardous Substances Act, No 15 of 1973 (Entire Act)	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable natures or the generation of pressure thereby in certain circumstances, and for the control of certain electronic products; to provide for the division of substances or products into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances and products; and to provide for matters connected therewith	Department of Health and Welfare	License in terms of Section 4 of the Act - to supply, sell, let, use operate or apply any Group I or Group III hazardous substances

Act (Relevant sections)	Brief description	Controlling body	Permitting procedure
Health Act, No 63 of 1977 (Sections 37, 38, 39)	<ul style="list-style-type: none"> Regulations regarding water intended for human use and food processing Regulations regarding rubbish, night soil, sewage or other waste and reclaimed products Regulations regarding nuisances 	Department of Health and Welfare	(no information)
Lake Areas Development Act, No 39 of 1975	<ul style="list-style-type: none"> To provide for the establishment of lake areas under the control of a Lake Areas Development Board, and for matters connected therewith Establishment of lake area 	Department of Environmental Affairs and Tourism	(no information)
Minerals Act, No 50 of 1991 (Sections 5, 9, 14, 34, 38, 39, 47, 61, 63)	<ul style="list-style-type: none"> Right to prospect and mine for and to dispose of minerals Issuing of mining authorisation and the furnishing of the applicant on his ability to rehabilitate the disturbance of the surface, which ability not only means technical but also financial Rehabilitation of surface of land Submission of an Environmental Management Programme Report (EMPR) before mining commences. Mining authorisation will not be granted before approval of the EMPR Provisions for fines and/or imprisonment with non-compliance of certain sections of the Act Provision for the establishment of regulations with respect to accounts, and the imposition of levies in respect of the rehabilitation of the surface and combatting of pollution of air, land, sea or other water 	Department of Minerals and Energy	Section 5 - need to obtain mining authorisation
Mountain Catchment Areas Act, No 63 of 1970 (Entire Act)	<ul style="list-style-type: none"> The Minister has the right to declare an area a mountain catchment area Advisory committees may be establishment Fire protection plans for catchment areas Regulations regarding the control of environmental aspects in proclaimed mountain catchments 	Department of Environmental Affairs and Tourism	(no information)
National Monuments Act, No 28 of 1969 (Sections 1, 12)	<ul style="list-style-type: none"> Alienation, protection, removal or export of monuments and certain other objects 	Department of Environmental Affairs and Tourism/ Department of National Education	(no information)
National Parks Act, No 57 of 1976 (Sections 1, 19, 20, 21, 22, 24, 27, 29, 30)	<ul style="list-style-type: none"> Cessation of certain powers of provincial councils in park areas Prohibition of prospecting and mining in certain parks as described in Schedule 1 Restriction on entry into or residence in a park Rights of certain owners and occupiers of land riparian to public streams included in a park Penalties Burden of proof and proof of certain facts relating to poaching and damaging of property in the park The National Parks Board and the Minister have the right to make regulations 	Department of Environmental Affairs and Tourism	(no information)
Nuclear Energy Act, No 131 of 1993 (Entire Act)	To provide for the continued existence of the Atomic Energy Corporation of South Africa, Limited and of the Council for Nuclear Safety and for the management thereof; to determine the objects, powers and functions of that Corporation and that Council; to provide for the implementation of the Nuclear Non-Proliferation Treaty and the Safeguards Agreement; to regulate the licensing of nuclear activities; to amend the Hazardous Substances Act, 1973, so as to amend a certain definition; and to provide for matters connected therewith.	Council for Nuclear Safety	Licenses required in terms of Sections 51, 52, 53, 54, 55
Occupational Health and Safety Act, No 85 of 1993 (Sections 1, 8, 9)	To provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.	Department of Labour	(no information)
Physical Planning Act, No 125 of 1991 (Sections 1, 4, 22)	To promote the orderly physical development of the Republic, and for that purpose, to provide for the division of the Republic into regions, for the preparation of national development plans, regional development plans, regional structure plans and urban structure plans by the various authorities responsible for physical planning, and of matters connected therewith.	Department of Land Affairs	(no information)
Sea Shore Act, No 21 of 1935 (Sections 1 and 3)	<ul style="list-style-type: none"> The Minister may let the sea-shore and the sea to certain activities as defined under the Act Regulations promulgated under the Act 	Department of Transport	(no information)
State Land Disposal Act, No 48 of 1961 (Entire Act)	To provide for the disposal of certain State land and for matters incidental thereto, and to prohibit the acquisition of State land by prescription	Department of Land Affairs	(no information)

Act (Relevant sections)	Brief description	Controlling body	Permitting procedure
Water Services Act, 1997 (Entire Act)	To provide for the rights of access to basic water supply and basic sanitation; to provide for the setting of national standards and of norms and standards for tariffs; to provide for water services institutions and water services intermediaries; to provide for the establishment and disestablishment of water boards and water services committees and their powers and duties; to provide for the monitoring of water serviced and intervention by the Minister or by the relevant Province; to provide for financial assistance to water services institutions; to provide for certain general powers of the Minister; to provide for the gathering of information in a national information system and the distribution of that information; to repeal certain laws; and to provide for matters connected therewith.	Department of Water Affairs and Forestry	(no information)
National Water Bill, Draft 7 1998 (Entire Act)	To consolidate and amend the laws relating to the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respects, or the use of sea water for certain purposes; for the control of certain activities on or in water in certain areas; for the control of activities which may alter the natural occurrence of certain types of atmospheric precipitation; for the control, in certain respects, of the establishment or the extension of townships in certain areas; and for incidental matters	Department of Water Affairs and Forestry	(no information)
National Environmental Management Bill, Draft 1 1998 (Entire Act)	To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for coordinating environmental functions exercised by organs of state; and to provide for matters connected therewith. <ul style="list-style-type: none"> • Chapter 1 - National Environmental Policy : Principles • Chapter 2 - Institutions <ul style="list-style-type: none"> Part 1 : National environmental forum Part 2 : Commission for sustainable development Part 3 : Committee for Environmental co-ordination • Chapter 3 - Procedures for co-operative governance • Chapter 4 - Fair decision making and conflict management • Chapter 5 - Integrated environmental management • Chapter 6 - International obligations and agreements • Chapter 7 - Compliance and enforcement • Chapter 8 - Environmental management co-operation agreements • Chapter 9 - Administration of the act 		(no information)

Source: a)

4. STATE OF THE ENVIRONMENT

4.1 Atmospheric Pollution

The main air pollutants in South Africa are: sulphur dioxide; nitrogen oxides, volatile hydrocarbons, carbon monoxide, carbon dioxide, chlorinated fluoro-hydrocarbons and particulates (DEAT and DWAF, 1997). Very little information on the concentration of most air pollutants in South Africa is available. Air quality monitoring has been limited to selected urban areas and only a few of the more common products of incomplete combustion of fossil fuels (sulphur dioxide and nitrous oxides) are consistently measured. Furthermore there is no standardisation of monitoring methods, instrument siting, or sample analysis and, consequently, data from different areas and years is often not comparable.

Source: a)

Related Agency
(no information)

Statistics on air pollution control in South Africa
<ul style="list-style-type: none"> • South Africa's consumption of chloro-fluoro-carbons (CFCs) was 1 % (12,000 tons) of the total world consumption in 1991, the phasing out of CFCs has been given special attention; • South Africa's calculated contribution to the greenhouse effect was 2 % of the world total, much of this may be attributed to carbon dioxide emissions from the burning of fossil fuels, it is recognised that control of carbon dioxide pollution requires high priority; • The main air pollutants are sulphur dioxide (2 million tons), nitrogen oxides (720,000 tons), volatile hydrocarbons (580,000 tons), carbon monoxide (43,000 tons), and carbon dioxide (330 million tons); • Generally air pollution levels measured against international norms are beneath limits, but air pollution levels in industrial areas is unacceptably high.

Source: a-25)

Air pollution hot spots in South Africa
<ul style="list-style-type: none"> • Merebank, a residential area near an industrial area south of Durban; • Cape Town during autumn and winter; • The industrial triangle in Gauteng, particularly during winter (DEAT and DWAF, 1997).

Source: a-10)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Law on air pollution	○	Atmospheric Pollution Prevention Act, No.45 of 1965
② Ambient air quality standard	?	
③ Emission standard (stationary and/or mobile sources)	?	
④ Environmental monitoring results	×	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.2 Water Pollution

Most monitoring of water quality by the department is through regular reports received from permit holders (reports on water quality at compliance monitoring points). The department also monitors water quality at various locations and has an extensive national water quality database. The water quality monitoring data is not however made readily available to the public in a user-friendly format.

Source: a)

Related Agency
① Department of Water Affairs and Forestry (DWAF)

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Law on water pollution	?	
② Water quality standard	?	
③ Effluent standard	?	
④ Drinking water standard	?	
⑤ Water quality monitoring	×	
⑥ Guidelines on water quality	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.3 Other Pollution

(1) Noise

Very little has been done to reduce noise levels in urban environments. Baseline information on noise, vibration and shock levels in South Africa is not available. Regulations for control of noise, vibration and shock were promulgated in terms of Section 28 of the Environment Conservation Act 73 of 1989. The regulations are only applicable in the areas of jurisdiction of local authorities, if the local authorities consent to these. With a few exceptions, local authorities have not done so because they lack the manpower and equipment to enforce the regulations.

Related Agency
(no information)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Law on noise	○	Section 28, Environment Conservation Act 73 of 1989
② Standard on noise level	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

(2) Ionising radiation

Baseline information on levels of ionising radiation in South Africa is not available to the public in a user friendly format.

The main sources of ionising radiation that could be an environmental hazard are the Koeberg nuclear power station in the Western Cape and gold and uranium mining operations mainly in the Gauteng, Mpumalanga, North West and Free State Provinces. Spent fuel from Koeberg is disposed of at the Vaalputs radioactive waste disposal site which is designed for short-lived radioactive waste. Radioactive wastes from mining include: voluminous waste with low levels of activity (concerns are constraints imposed on surrounding land uses); hot spots (localised areas requiring decontamination); contaminated scrap (has to be decontaminated before sale); and disposal of waste with a high level of activity. At present, there is no facility in South Africa for the disposal of long-lived radio-active waste. It is estimated that the total volume of radio-active waste that South African mines will have to dispose of will be at least 1,000 m³ (Van den Berg, 1998).

The Council for Nuclear Safety (CNS) has been set up as the South African Agency responsible for regulation of nuclear safety in terms of the Nuclear Energy Act 131 of 1991. It falls under the DME. The CNS has the tasks of overseeing the nuclear industry and of licensing its operations. The role of the CNS and its location and constitution are being questioned. It is proposed by the DME that the CNS should become a public nuclear watchdog tasked with proactively drawing the public into planning and policy development around the nuclear industry (DME, 1995). At the same time, nuclear policy is being revised. Currently there is no clarity on how nuclear policy was made in the past (DME, 1995).

Source: a)

Related Agency
(no information)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Law on nuclear safety	○	Nuclear Energy Act 131 of 1991

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.4 Waste Management

The total South African waste stream was estimated to be 500 million tonnes per year, of which about 85% is generated by the mining industry. Approximately 50 million tonnes per year of industrial and domestic waste is produced. The remainder comprises sewage sludge and waste from agriculture and forestry (DEAT and DWAF, 1997).

Most solid waste produced in South Africa is disposed of on land. In the past, solid waste disposal was, in many cases, a haphazard operation. Landfills in South Africa have historically been badly sited, designed and operated (DEAT and DWAF, 1997). Two needs have driven waste-management policy development in South Africa in the last decade:

- a need for a pollution prevention and waste minimisation approach which moves away from the end-of-pipe solutions to waste management;
- a need to extend an acceptable level of waste collection, transportation, treatment and disposal services to all communities (NMWS, 1998).

Source: a)

Related Agency
① Department of Environmental Affairs and Tourism (DEAT)
② Department of Water Affairs and Forestry (DWAF)
③ Minister of Water Affairs (permission of waste disposal site)
④ Local authorities (planning and development of waste disposal facilities)

Source: a)

Key Issues of Waste Management
<ul style="list-style-type: none"> • Waste minimisation issues: <ul style="list-style-type: none"> - a lack of legislation and government incentives which promote cleaner production and waste minimisation; - awareness of, information on and expertise in cleaner production and waste minimisation is generally lacking. • Non-hazardous waste issues: <ul style="list-style-type: none"> - there is no clear distinction between the definition of hazardous and non-hazardous waste; - the approach to waste management has been fragmented; - planning for future waste disposal is poor and very few waste disposal sites are adequately designed, supervised or monitored; - some informal settlements have no waste sites and dumping takes place indiscriminately; - partnerships, both horizontally and vertically, between all tiers of government have been problematic in the past; - LAPs have not been adequately involved in waste management decisions in the past; - there is a lack of consistent application of waste disposal standards; - government initiatives promoting avoidance or minimisation of waste generation and the recovery of resources and recycling are lacking; - funds for the provision of waste collection and disposal services are inadequate and this is exacerbated by non-payment of rates; - waste facility registration data is incomplete and there is insufficient data for the planning of new waste disposal facilities. • Hazardous waste issues: <ul style="list-style-type: none"> - there is a lack of coordination, a fragmented regulatory approach, uncertainties regarding jurisdiction of different authorities and a severe lack of capacity within all tiers of government; - the planning, development and management of hazardous waste management facilities needs to be better coordinated and streamlined, and LAP involvement in these processes needs to be improved; - co-disposal landfills are not optimally located; - information on the quantities of hazardous waste generated is lacking; - increases in the costs for the disposal of hazardous waste have caused many small-scale hazardous waste generators to avoid proper disposal; - currently the controls for mine waste disposal are less rigorous than controls for disposal of other wastes; - government initiatives promoting avoidance or minimisation of waste production and the recovery of resources and recycling are lacking. • Waste information system: <ul style="list-style-type: none"> - databases on waste generators, transporters and disposers are inadequate; - government departments have overlapping responsibilities and there is duplication and lack of efficiency in data collection; - clarity on responsibilities for environmental liabilities associated with wastes is lacking.

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on waste	○	• Health Act No.63 of 1977
② Laws on hazardous waste	?	
③ Guidelines on waste treatment	○	• Minimum Requirements for Disposal of Waste (published by DWAF, being revised now)

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.5 Energy Conservation and Alternative Energy

The main source of energy in South Africa was coal, but growth in electricity use has outpaced growth in other fuels and coal has been displaced.

Most electricity is produced in large mine-mouth coal-fired stations producing low-priced electricity from low-cost coal. The electricity generation and bulk transmission sector is monopolised by Eskom. Marketing and distribution of electricity is regulated by the National Electricity Regulator (NER) and performed by Eskom and local authorities. Approximately 35 % of the South African liquid fuel supply is synthesised at the Sasol coal and Mossgas natural gas plants, the balance is from imported crude oil which is refined locally. South Africa does not have commercially exploitable oil reserves. Crude oil refineries are owned by several companies which sell liquid fuels under nine brands. South Africa's natural gas reserves are small (57 billion m³). Piped gas is marketed to Johannesburg, Cape Town and Port Elizabeth. Wood fuel is largely gathered by users from natural woodlands.

Koeberg is only one nuclear power station in South Africa. This produces electricity at a higher cost than coal-fired stations. Uranium is mined in South Africa, mainly by gold mines and gold production is in a steady decline. Enriched uranium for Koeberg was produced by the Atomic Energy Corporation (AEC) until recently.

Much of South Africa's energy system is characterised by lack of access to desired fuels, concentrated monopoly or oligopoly ownership, unintegrated pricing and taxation policies and a relatively poor environmental record. The government believes it has an important role in guiding the energy sector to more effectively meet goals of social equity, economic efficiency and environmental sustainability. This is motivated further by the fact that the energy sector has a major impact on the country's economy and is important in terms of international trade and domestic energy security. Government departments identified as key players in the energy sector are the DME (lead agent), DEAT, the Department of Public Enterprises and provincial and local governments.

Source: a)

Related Agency
① Eskom

Source: a)

Energy use in South Africa
<ul style="list-style-type: none"> • industry uses 54 % of the net energy consumption, it is well supplied with inexpensive energy, with coal (58 %) and electricity (36 %) being the main fuels; • only about 40 % of households have access to energy, poor households use fuelwood (often the supplies are inadequate), paraffin, coal, candles and batteries • liquid fuels comprise 92 % of the energy consumption for transport.

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on energy use and conservation	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.6 Water Supply

The total average volume of South African rivers is estimated at 53,000 m³ (President's Council Report, 1991). The availability of freshwater for each person each year, at the present population of around 42 million, is estimated to be 1,200 kl. This puts South Africa on the threshold of the internationally used definition of water stress. Within a few years, population growth will take the country below this level. Furthermore, South Africa currently uses more than half of the total available water resources (DWAF, 1997).

South Africa's major river systems are shared with neighbouring countries. South Africa's water policy commits to observing international custom and practice (such as the Helsinki Rules) in the management of these water resources. South Africa is also an active participant in initiatives to develop regional cooperation, for example the Southern African Development Community (SADC) Protocol on Shared Water Course Systems (DWAF, 1997).

New water legislation have put industry under pressure to re-evaluate use of and impacts on water resources and to pay a price for water that reflects the real economic cost, including the indirect cost to society and the environment for their water use. Industrial sectors under most pressure are: farming and forestry, which account for around half the nation's water use; and the mining industry, which is main industrial polluter of water in South Africa (DWAF, 1997).

Source: a)

Related Agency		
(no information)		

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on water resources and supply	○	· Water Services Act, 1997
② Laws on use of water resources	△	· National Water Bill, Draft 7 1998

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.7 Waste Water Management

Waste water management in South Africa has been limited to treatment of sewage and highly toxic industrial effluents. Almost half of South Africa's population do not have access to adequate sanitation. Treatment of industrial effluents has not been common practice because the standards for effluent disposal were inadequate (uniform effluent standards limited to a few parameters which did not guarantee that the quality of water in the receiving water body would be acceptable for use) and disposal of contaminated water by evaporation was an accepted practice. More rigorous water quality guidelines for receiving water bodies coupled with the introduction of integrated catchment management practices, is putting more pressure on industry to treat waste water. Water treatment facilities will add significantly to the cost of many industrial operations.

Source: a)

Related Agency		
(no information)		

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on sewerage system	?	
② Laws and regulations on industrial effluent	?	
③ Effluent standard	○	· ?
④ Results of monitoring	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.8 Forest Conservation/ Desertification

South Africa has relatively little indigenous forest. The most extensive forest resources are woodlands, which were originally about 42 million ha of open savanna and now as little as half remains. About 1.5 million ha of industrial forest plantation have been developed in savanna woodland areas along the eastern escarpment of South Africa. Indigenous closed forests occur in patches in the mountain and coastal areas on the eastern side of the country, as small fragments of habitat set within grasslands and fynbos. They only occupy approximately 150,000 ha and are not used much for their timber. They are valued more for their biological diversity, for medicinal and local uses and for aesthetic and spiritual values (DWAF NFAP, 1997).

The decline in savanna woodlands can largely be attributed to the development of agricultural land, particularly conversion of arid woodlands to unsustainable crop systems and small-scale agriculture in peri-urban areas in the former overcrowded apartheid homelands. The remaining natural woodlands are extensively exploited as a source of wood for fuel, homestead use, medicinal purposes and fencing.

Only 9.6 % of woodlands and about 75 % of indigenous closed forests are protected by law and owned by the state. The condition of forest resources in their entirety in South Africa has not been comprehensively surveyed and evaluated. Trends in and the costs and benefits of forest land conversion are not well understood.

The onslaught of desertification has claimed more than 250,000 ha in South Africa. Approximately 55% of South Africa's total surface is under threat of desertification. This includes the entire Karoo (36.2%), sensitive areas (10.9%) and a transitional area of some 31 million ha (8.5%). More than 10 million ha has been identified at the nucleus risk area for desertification. Concern has also been expressed at the rapid deterioration of the Eastern Cape environment. Desertification in this area threatens a further 12 million ha stretching from the coast through Transkei and into Lesotho. The potential danger is so severe that this could trigger a climatic change over the entire country (President's Council Report, 1991).

Desertification in South Africa is attributable to: global climatological factors; concentration of livestock and overgrazing; uncontrolled woodcutting and deforestation; unwise tillage practices; unregulated burning and land clearance; incorrect water management; misapplied technology; salination and sea water intrusion; overpopulation; and lack of conservation and land use management strategies (President's Council Report).

Source: a)

Related Agency
① Department of Water Affairs and Forestry (DWAF)

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on forest conservation	○	Forest Act, No. 122 of 1984
② Laws and regulation on protection area	?	
③ Laws on desertification	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.9 Biological Diversity

Largely as a result of a mix of tropical and temperate climates and habitats, South Africa ranks as the third most biologically diverse country in the world. Some 18 000 plant species occur within its boundaries, of which 80 % occur nowhere else. Furthermore, South Africa is the only country to have an entire plant kingdom within its boundaries, one of just six in the world. This is the Cape Floral Kingdom (Fynbos). It is a recognised conservation hotspot, being an area where high levels of species richness, endemism and threat coincide. Other biomass units are of global conservation importance, for example one third of the world's succulent plant species are found in South Africa (DEAT, 1997).

In terms of the number of mammal, bird, reptile and amphibian species which are endemic to the country, South Africa is the 5th richest country in the world (DEAT, 1997).

South Africa's marine life is similarly diverse, partly as a result of the extreme contrasts between the water masses on the east and west coast. Over 10,000 plant and animal species, almost 15 % of the coastal species known worldwide, are found in South African waters, with about 12 % of these occurring nowhere else (DEAT, 1997).

The main threats to South Africa's biological diversity are: habitat transformation (agriculture, urban development, afforestation, mining, and dams; over exploitation of certain species, the introduction of exotic species, and pollution. Approximately 15 % of South Africa's plant species and 20 % of its animal species are listed as threatened (DEAT, 1997).

South Africa has many officially protected nature conservation areas and is globally renowned for its nature conservation practices. The past government places were extremely supportive of biodiversity conservation and developing scientific capacity to manage biological resources. Terrestrial conservation areas have been expanded from areas protected by the state to include private and communal lands through various mechanisms. Marine state protected areas include two of the largest "no-take" reserves in the world. The marine protected areas have not however been effectively managed (DEAT, 1997).

Source: a)

Related Agency
① Department of Environmental Affairs and Tourism (DEAT)

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on protection for fauna and flora	?	
② Laws and regulations for protection for specific species	?	
③ Laws and regulations on hunting	?	
④ Laws and regulations on protection area	○	National Parks Act, No.57 of 1976
⑤ Listed species in the Red Data Book	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.10 Natural Resource Management

The estimated percentage of the area of South Africa (106.000 ha) occupied by different land uses is as follows: urban areas - 5.6 %; protected conservation areas - 4.7 %; agriculture - 89.7 %; mining - 1%; forestry - 1 %; roads and railways - 2 %; and small holdings - 3% (President's Council Report, 1991).

Land which is suitable for one or other type of farming makes up approximately 83% of the total surface area of South Africa. Of this amount some 80% is natural veld, 14% is cultivated land, 5% is under tree or shrub plantations and 1% is devoted to cultivated pasture (President's Council Report, 1991).

The largest part of farming land (approximately 70%) is suitable only for grazing. Deterioration of grazing land occurs throughout South Africa. Note must be taken of the fact that only 10% of such land can be classified as being high quality, while 30% is reasonable, and 60% is poor quality. The fact that grazing land is deteriorating leads farmers to use harvest residue as fodder, instead of ploughing stubble back as compost. Climate plays an extremely important interactive part in the deterioration of grazing land. During periods of drought, which occur at regular intervals, the carrying capacity of the land tends to be exceeded, while flooding after a drought period carried off the topsoil, leading in turn to the growth of poorer and less viable pasture (President's Council Report, 1991).

The Department of Agriculture's Landcare Programme supports the general objectives of Chapter 10 of the United Nations Sustainable Development Agenda, entitled Integrated Approach to the planning and Management of Land Resources. The programme is targeting all farming groups (commercial and including small, medium and communal farmers) associated with the exploitative farming practices and limited resources for implementing corrective measures. Additional beneficiaries will be the rural poor through job creation and transfer of skills and knowledge (Department of Agriculture, 1998).

Source: a)

Related Agency
① Department of Water Affairs and Forestry (DWAF)

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on conservation of natural resources	○	• Minerals Act, No.50 of 1991
② Laws on use and conservation of mining resources	○	• Minerals Act, No.50 of 1991
③ Laws on underground resources	○	• Minerals Act, No.50 of 1991

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.11 Natural Disasters

A need for a policy on risk reduction and disaster management that is pro-active and not re-active has been recognised. A discussion document on this policy has been prepared by the Department of Constitutional Development (DCD), Directorate: Disaster Management, which has responsibility for disaster management at the national level (DCD, 1998). The discussion document shows that roles of government departments and other agencies in disaster management need to be more clearly defined. Natural disasters reviewed in this discussion document are as outlined below.

- Drought
 - Regular droughts are a normal part of the climate in South Africa, drought relief has been provided to the more affluent farmers in the past. More pro-active approaches are now being proposed for the agricultural sector, including an early drought warning system and financial incentives to promote farmers to save after good seasons to provide for poor seasons.
 - The lead agency is currently the Department of Agriculture.
- Floods
 - Flood management legislation and guidelines are not effective enough. Floods resulting in millions of Rand worth of damage are not uncommon.
 - DWAF is the lead agency on a national level. There is however a need for clear definition of the flood management roles and responsibilities of national, provincial and local government, catchment authorities, communities and individuals.
 - DWAF does have good baseline information on the hydrology of South African river systems. DWAF does have technology to predict floods escalating in regions (a danger situation escalates over days and weeks), but the standard of the technology differs from catchment to catchment.
 - Specialist teams have been assembled to provide flood relief in the past.
- Fires
 - Emergency services in urban centres are generally equipped to deal with a range of fire-related incidents. This is often not the case in rural areas.
- Disasters linked to geological formations (earthquakes, dolomite land, nuclear radiation)
 - Mining impacts on the potential for these types of disasters to occur. Mine-related seismic activity is common. There is a national seismic surveillance. Dewatering of mine can lead to dolomite land subsidence or sinkholes. Mine wastes and the Koeberg power station could be sources of exposure to ionising radiation.
 - The DME could be the lead agency dealing with mine-related and other geological disasters. Other options are to be explored.
- Tropical cyclones and tornadoes
 - Information on the occurrence of these weather phenomena is not readily available. The Weather Bureau at DEAT has early warning systems to monitor and predict changes in weather patterns but a system for communicating this information to potentially affected parties is lacking.

Source: a)

Related Agency
① Department of Constitutional Development (DCD)
② Department of Water Affairs and Forestry (DWAF)
③ Department of Minerals and Energy (DME)
④ Weather bureau, Department of Environmental Affairs and Tourism (DEAT)
⑤ Department of Agriculture (DA)

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on natural disaster	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

4.12 Environmental Education

Several documents on environmental education have been published, the latest is a discussion document available from DEAT on request. These documents address the following relevant problems prevailing in South Africa at present :

- there is a lack of suitably qualified teachers in environmental management;
- the emphasis of environmental studies is on nature conservation rather than holistic environmental management;
- environmental education at most universities is limited;
- environmental education outside of educational institutions is also limited;
- regulatory authorities responsible for environmental management in South Africa have little or no formal training in environmental management.

The first chair in environmental studies was established at the University of Cape Town in 1973. Other universities only established chairs in these subjects in 1990s. Most universities require basic training in some discipline at undergraduate level before students are allowed to add the environmental dimension to their basic studies at postgraduate level. An environmental dimension is only added to undergraduate-level subjects in a few disciplines such as civil engineering.

Related Agency
① Department of Environmental Affairs and Tourism (DEAT)

Source: a)

Laws and Regulations	Presence	Name of Laws or Regulations (Reference)
① Laws on education	?	
② Guidelines on environmental education	?	

Note: ○ : Issued, × : None, △ : Under planning, ? : Unknown

5. INTERNATIONAL RELATIONSHIP

Department of Environment Affairs and Tourism (DEAT) is responsible for the national administration of the international conventions and agreements on environmental issues South Africa is a signatory to at least 27 of the approximate 150 international treaties which deal with various aspects of the environment. Although provincial structures have specific responsibilities within particular conventions, DEAT as the lead agency carries the responsibilities of driving the implementation of the conventions within the country.

Source: a)

5.1 International Convention

Conventions and agreements on environmental issues	Year
1) Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)	(no information)
2) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	(no information)
3) Antarctic Treaty	(no information)
4) Protocol for the protection of the Ozone Layer (Montreal Protocol)	(no information)
5) Convention on Wetlands Of International Importance Especially as Waterfowl Habitat (Ramsar Convention)	(no information)
6) Convention of The Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention)	(no information)
7) Convention on Biological Diversity (CBD)	(no information)
8) International Whaling Commission (IWC)	(no information)
9) Framework Convention on Climate Change (FCCC)	(no information)
10) Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)	(no information)
11) Convention on Desertification	(no information)
12) Law of the Sea Convention	(no information)
13) Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)	(no information)
14) Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 and its protocol of 1996 (London Guidelines)	(no information)
15) World Conservation Union (UNCN: International Union for the Conservation of Nature and Natural Resources)	(no information)
16) Convention on Prior Informed Consent (PIC)	(no information)
17) Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish stocks	(no information)
18) International Commission for the Conservation of Atlantic Tunas (ICCAT)	(no information)
19) South East Atlantic Fisheries Regional Organisation (SEAFRO)	(no information)
20) Wetlands International	(no information)

Source: a)

5.2 International Cooperation Project

Until the first free elections in 1994 there was negligible international development assistance in the environmental field. The largest environmental donor in South Africa over the last four years has been the Danish Cooperation for Environment and Development (DANCED). Now the most important partners for international environmental donors are DEAT and DWAF. The DWAF has obtained substantial funds for assistance with water resource management. Its budget for this has increased 100 fold in the last three years. Currently government funding is weak in the areas of nature conservation; forest conservation; community forestry; and coastal zone management (DANCED, 1998).

DANCED has allocated Dkr 400 million for environmental assistance in South Africa over the period 1995 to 1999 (this is four fifths of DANCED's allocation to the Southern African region). It started work in South Africa in 1995. Its assistance to date has been focused on the development of environmental strategies and policies. Now attention is being focused on action plans for implementation and implementation, including: support to institutional and administrative capacity; environmental information systems; technology transfer; and pilot projects. The main themes for DANCED's environmental support are: urban environmental management; holistic waste and pollution management; sustainable energy; and integrated natural resource management. The latter

theme includes: biodiversity; forest and wood resources; and water resource management (DANCED, 1998).

Three of South Africa's nine provinces have been selected as target areas for Danish-supported environmental activities. These are KwaZulu-Natal, the problems of which relate to coastal zones, industrial pollution protection of wetlands and developing tourism; Mpumalanga with problems associated with air pollution from coal-fired power plants, industry and mining; Gauteng province, where Johannesburg is situated, and where major industrial concentration is resulting in pollution problems (DANIDA and DANCED, 1996).

Source: a)

Name of Project (Project cost: million dollars)	Period	Donor/South African lead agency
Pollution and waste		
Development of an Integrated Pollution and Waste Management policy and strategy	(no information)	DANCED/ DEAT, DWAF
Development of a National Waste Management Strategy	(no information)	DANCED/ DEAT, DWAF
Water resource management		
Water Law Review process	(no information)	Danida, The Finnish Government, United States Agency for International Development (USAID), United Nations Development Programme (UNDP), The Department of International Development (DFID), Food and Agriculture Organisation/ DWAF
Two pilot projects in Integrated Catchment Management Systems	(no information)	South African Water Research Commission (WRC), Limited funding from the Agricultural Research Council (ARC), Council for Scientific and Industrial Research (CSIR), Foundation for Research Development (FRD), and International Development and Research Centre (IDRC)/DWAF
Water conservation awareness being promoted through the National Water Conservation Campaign and Working for Water Projects	(no information)	European Union, Dutch Government, IDRC, Norwegian Agency for Development (Norad)/ DWAF
Various areas of resource management	(no information)	Governments of Australia, Japan, India, France, New Zealand, and Kuwait, Canadian Agency for International Development (CIDA), World Bank, United Nations Education, Scientific and Cultural Organisation (UNESCO), World Health Organisation (WHO)/ DWAF
Sustainable energy		
Some support in terms of energy efficiency and renewables, including a school electrification programme which has a solar component.	(no information)	European Union/DME
Forest conservation		
Development of the National Forestry Action Plan.	(no information)	DIFD, Irish and Finnish Government, DANCED/ DWAF
Community forestry and greater community access to the country's forests (Government funding of forestry activities is weak the areas of conservation and community forestry.)	(no information)	DIFD, Irish and Finnish Government, DANCED / DWAF
Biological diversity		
National Policy on the Conservation and Sustainable Use of South Africa's Biological Diversity	(no information)	DANCED / South African National Parks
Project to establish mutually beneficial partnerships between communities and neighbouring national parks	(no information)	DANCED / DEAT
National implementation system for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	(no information)	DANCED / DEAT

Name of Project (Project cost: million dollars)	Period	Donor/South African lead agency
Various projects on biodiversity research, community-based eco-tourism projects, training and capacity building, public awareness, policy, technical support, the creation of new conservation areas and transboundary parks	(no information)	IDRC, DFID, Dutch Government, UNDP, USAID, German Technical Cooperation (GTZ), European Union/ DEAT
Coastal zone management	(no information)	DFID, IDRC, FRD/ DEAT
Land and soil resources		
Desertification convention	(no information)	Dutch, German and Norwegian Governments, IDRC/ DEAT
Landcare Programme	(no information)	South-African - United States of America (USA) Binational Commission, Australian Government/ Department of Agriculture

Source: a)

6 INFORMATION SOURCE

6.1 Governmental Agency

Name of Organization	Contact Address
a) Department of Environmental Affairs and Tourism	(012) 310 3696 (012) 310 3911 (012) 402 3217 (012) 310 3600 (012) 290 2950
b) Department of Water Affairs and Forestry	(012) 338 7500 (012) 338 7500 (012) 338 7500 (012) 338 7500 (012) 338 7500 (012) 338 7500
c) Department of Agriculture	(012) 319 6488
d) Department of Constitutional Development	(012) 334 0610
e) Department of Minerals and Energy	(012) 663 5500

Source: a)

6.2 Non-governmental Organization (NGO)

Name of Organization	Contact Address
a) Earthlife Africa	P O Box 11383, JOHANNESBURG, 2000 Tel: (011) 477-4653, Fax: (011) 447-4653
b) Endangered Wildlife Trust (EWT)	Private Bag X 11, PARKVIEW, 2122 Tel: (011) 486-1102, Fax: (011) 486-1506 Email: ewtsa@global.co.za
c) Environmental Justice networking Forum (EJNF)	P O Box 1635, DENNITTEN, 1030 Tel: (013) 983-0540, Fax: (013) 983-0074
d) Environmental Monitoring Group (EMG)	P O Box 123, OBSERVATORY, 7935 Tel: (021) 448-3900, Fax: (021) 47-9784 Email: envmongr@we.apc.org
e) Industrial Environmental Forum of South Africa	P O Box 1091, JOHANNESBURG, 2000 Tel: (011) 800-3900, Fax: (0110) 800-4360
f) Keep South Africa Beautiful Association	P O Box 1514, RANDBURG, 2125 Tel: (011) 787-1080, Fax: (011) 787-1013
g) National Monuments Council	P O Box 4637, CAPE TOWN, 8000 Tel: (021) 462-4502, Fax: (021) 462-4509
h) The Fairest Cape Association	P O Box 97, CAPE TOWN, 8000 Tel: (021) 462-2040, Fax: (021) 461-9519
i) Wildlife and Environment Society of South Africa	P O Box 394, HOWICK, 3290 Tel: (0332) 30-4332, Fax: (0332) 30-4576
j) World Wide Fund of Nature South Africa (WWFSA)	P O Box 456, STELLENBOSCH, 7599 Tel: (021) 887-2801, Fax: (021) 887-9517

Source: a)

6.3 South African Agencies providing technical and financial assistance for environmental development projects

Name of Organization	Contact Address
a) DANCED	P O Box 2942, PRETORIA 0001 Tel: (012) 322-0595, Fax: (012) 322-0596
b) Agricultural Research Council (ARC)	P O Box 8783, PRETORIA 0001 Tel: (012) 319-6520
c) Council for Scientific and Industrial Research (CSIR)	P O Box 395, PRETORIA 0001 Tel: (012) 841-3775, Fax: (012) 841-2689
d) Foundation for Research Development	Tel: (012) 841-4076, Fax: (012) 804-2679

Source: a)

6.4 Embassy

Name of Organization	Person in Charge	Contact Address
Embassy of Japan	(no information)	• 2nd Flor, Sanlam building Hatfield, 353 Festival Street Hatfield, Pretoria 0083, Republic of South Africa
Embassy of South Africa	(no information)	• Zenkyoren Bldg. 2-7-9 Hirakawa-cho, Chiyoda-ku, Tokyo 102-0093 Tel: 03-3265-3366

Source: e)

List of Abbreviation			
AEC	Atomic Energy Corporation	ICCAT	International Commission for the Conservation of Atlantic Tunas
ANAM	National Environmental Authority	IDRC	International Development and Research Centre
ARC	Agricultural Research Council	IEP	Integrated Energy Planning
CAPCO	Chief Air Pollution Control Officer	IP	Integrated Pollution
CBD	Convention on Biological Diversity	ITCZ	Inter Tropical Convergence Zone
CCAMLR	Convention on the Conservation of Antarctic Marine Living Resources	ITMAS	International Tourism Marketing Assistance Scheme
CIDA	Canadian Agency for International Development	IWC	International Whaling Commission
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	LUT	Local User Terminal
CFCs	Chloro-Fluoro-Carbons	MOSSGAS	(unknown)
CNS	Council for Nuclear Safety	NER	National Electricity Regulator
CONNEPP	Consultative National Environmental Policy Process	NWMS	National Waste Management Strategy
CSIR	Council for Scientific and Industrial Research	PIC	Convention on Prior Informed Consent
DA	Department of Agriculture	POPs	Persistent Organic Pollutants
DANCED	Danish Cooperation for Environment and Development	PRTR	Pollutant Release and Transfer Register
DCD	Department of Constitutional Development	RETOSA	(unknown)
DCP	Data Collecting Platform	SADC	(unknown)
DEAT	Department of Environmental Affairs and Tourism	SARP	Sardine and Anchovy Recruitment
DFID	Department of International Development	SATOUR	(unknown)
DME	Department of Minerals and Energy	SEAFRO	South East Atlantic Fisheries Regional Organization
DWAF	Department of Water Affairs and Forestry	SETI	(unknown)
EIA	Environmental Impact Assessment	SOEKOR	(unknown)
EJNF	Environmental Justice Networking Forum	TSTG	Tourism Safety Task Group
EMF	Environmental Management Framework	UNCN	International Union for the Conservation of Nature and Natural Resources
EMG	Environmental Monitoring Group	UNDP	United Nations Development Programme
EMPR	Environmental Management Programme Report	UNESCO	United Nations Education, Scientific and Cultural Organization
ENPAT	Environmental Potential Atlases	USAID	United States Agency for International Development
EWT	Endangered Wildlife Trust	WHO	World Health Organization
FCCC	Framework Convention on Climate Change	WM	Waste Management
FRD	Foundation for Research Development	WRC	South African Water Research Commission
GIS	Geographical Information System	WWFSA	World Wide fund of Nature South Africa
GTZ	German Technical Cooperation		

Source: a)

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