

824 ZA03

# South African Water Resources and Services Perspective



Version 3: March 2003

Creating a better life for all South Af

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# Introduction



# Our Vision

The Department of Water Affairs and Forestry is the custodian of South Africa's water and forestry resource. It is primarily responsible for the formulation and implementation of policy governing these two sectors. It also has override responsibility for water services provided by local government.

While striving to ensure that all South Africans gain access to clean water and safe sanitation, the water sector also promotes effective and efficient water resources management to ensure sustainable economic and social development.

The forestry programme promotes the sustainable management of the country's natural forest resources and commercial forestry for the lasting benefit of the nation.

We have a vision of a democratic, peo-

ple-centred nation working towards human rights, social justice, equity, and prosperity for all.

We have a vision of a society in which all our people enjoy the benefits of clean water and hygienic sanitation services.

We have a vision of water used carefully and productively for economic activities that promote the growth, development and prosperity of the nation.

We have a vision of a land in which our natural forests, plantations and woodlands are managed in the best interests of all.

We have a vision of a people who understand and protect our natural resources so as to make them ecologically stable and safeguard them for current and future generations.

We have a vision of a Department that serves the public loyally, meets its responsibilities with energy and compassion, and acts as a link in the chain of integrated and environmentally sustainable development.

We have a vision of development and co-operation throughout our region; of playing our part in the African Renaissance.

# Our Mission

The mission of the Department of Water Affairs and Forestry is to serve the people of South Africa by:

- Conserving, managing and developing our water resources and forests in a scientific and environmentally sustainable manner in order to meet the social and economic needs of South Africa, both now and in the future;
- Ensuring that water services are provided to all South Africans in an efficient, cost-effective and sustainable way;
- Managing and sustaining forests, using the best scientific practice in a participatory and sustainable manner;
- Educating the people of South Africa on ways to manage, conserve and sustain our water and forest resources;
- Co-operating with all spheres of government, in order to achieve the best and most integrated development in our country and region; and
- Creating the best possible opportunities for employment, the eradication of poverty and the promotion of equity, social development, and democratic governance.

# Our Values

The Department of Water Affairs and Forestry is a loyal servant of the government and the people of South Africa.

As public servants our skills will, at all times, be used for the benefit of the people and for the reconstruction and development of our country in the spirit of Batho Pele (People First).

As management, our responsibility is to provide high-quality transformational leadership and a disciplined work ethic, and to promote a working culture for motivated, accountable and committed teamwork.

As citizens of the African continent, we are dedicated to long-term integrated regional security and co-operation, and to the spirit of the African Renaissance. Our working environment is governed by the principles of representivity, equality, mutual

respect, and human development.

***Viva water, pure and clean! ...***

***Via forests, rich and green!***

# Legislative Mandate

## **By the National Water Act**

**(No 36 of 1998):** to ensure that South Africa's water resources are protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all persons. The Act establishes the National Government, acting through the Minister of Water Affairs and Forestry, as the public trustee of the nation's water resources, with power to regulate the use, flow and control of all water in the Republic.

## **By the Water Services**

**Act (No 108 of 1997):** to create a developmental regulatory framework within which water services can be provided. The Act establishes water services institutions, and defines their roles and responsibilities.

Schedule 4 of the Constitution of the Republic of South Africa

(Act 108 of 1996) vets the responsibility of water and sanitation services, limited to potable water supply systems and domestic waste-water and sewage disposal systems, in Local Government. However, the National Government has a constitutional responsibility to support and strengthen the capacity of municipalities to manage their own affairs, to exercise their powers and to perform their functions, and also has the authority to see to the effective performance by municipalities of their functions in respect of matters listed in Schedules 4 and 5 of the Constitution, by regulating the exercise by municipalities of their executive authority. The Water Services Act gives substance to these con-



stitutional requirements and provision, whilst acknowledging the authority of Local Government in respect of water services.

**By the National Forests Act**

**(No 84 of 1998):** to ensure that South Africa's forest resources (indigenous and plantation) are protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all. The administration of indigenous forests is however a concurrent competence between the National and Provincial Governments. When the Minister of Water Affairs and Forestry is certain that sufficient expertise, resources and administrative capacity exists in the Provinces, the Minister is empowered to assign or delegate to the Provinces the

responsibility for managing indigenous forests.

**By the National Veld and Forest Fire Act (No 101 of 1998):** to prevent and combat

veld, forest and mountain fires throughout the country and thereby limit and reduce the damage and losses caused by fires to life, fixed property, infrastructure, movable property, stock, crops, fauna and flora and veld in South Africa. In terms of the Constitution fire fighting is a Local government function, with Provincial and National Governments playing a facilitating role. The Minister of Water Affairs and Forestry must prepare and maintain a fire anger rating system for the country in consultation with affected role players, including fire Protection Associations which are

established under the Act. The Department must also keep record of fires, and develop a database capturing the statistics of fires and their impact on society.

# Functional Areas of Work

## 1. Forestry

Forests form an important part of South Africa's natural resource base and contribute significantly to our economy. The department plays a key role in developing, managing, and regulating the country's forest resources. The Chief Directorate: Forestry manages commercial and indigenous forests, offers community forestry services, and provides the policy and regulatory framework for the sector as a whole.

## 2. Water Services

A large number of South Africans still do not have easy access to safe water and sanitation. It is one of the Department's priorities to ensure that all South Africans have access to sustainable, effective, equitable and economical water supply

and sanitation services.

This is done, through a programme of support to local government as the provision of water services is constitutionally its responsibility.

Regional offices assist local authorities in implementing water services programmes. In addition to planning and programming support, other key activities include the formulating, implementing and monitoring policy, to produce guidelines and aids for implementation, and to oversee pilot projects.

### **3. Water Resources**

Water is a scarce natural resource and is a critical factor in most developments and the maintenance of life and the environment. The water resources management function includes the planning of the national resources, the development thereof, regulation of water allocations, regulation of water use for purposes of water demand management, abstractions and water quality management. Information on water availability both of surface and ground water as well as its quality are gathered and disseminated. Control over dam safety, flood and drought management are also important components. Many of the rivers in South Africa are shared with neighbouring countries and international co-operation is essential.

### **4. Corporate Services**

Whilst water and forests are the subjects of the Department's mandated functional work, Corporate services ensures that a uniform and consistent approach to corporate issues - human resources, finance, legal, communication and administration - are maintained. This is achieved through the development of comprehensive and integrated strategies, particularly to address training and capacity building issues, and to monitor progress of the departmental transformation process. Adherence to Public service Regulations and the implementation of the Public Finance Management Act are essential to the work of this division.

## **5. Regional Implementation**

There are nine Regional Offices, which deal with water-related issues (resource management and services provision), one in each Province. Three Forestry Regional Offices deal with forest issues in the northern, central and southern areas of the country. Responsibility for Regional activities is shared among Head Office staff and the staff of the Regional Offices in accordance with a structured matrix management system. As far as possible the water and forestry Regional Offices share administrative and financial management resources.

# Southern African Vision for Water

Equitable and sustainable utilisation of water for social, environmental justice, and economic benefit for present and future generations.

## **The management of the water resources of Africa should aim for:**

- Equitable and Sustainable Social and Economic Development in Africa
- Equitable Access to Water of an Acceptable Quantity and Quality
- Proper Sanitation for All and Safe Waste Disposal
- Food Security for all Households
- Energy Security for All Households
- A Sustainable Environment
- Security from Natural Disasters
- Integrated Water Resources Management

## **Facts on Water Recourses in South Africa:**

### **1. Rainfall**

Average annual precipitation is about 500 mm, but varies from less than 200 mm along the West Coast (60 mm at Port Nolloth) to 600 - 800 mm in the central area (Gauteng) and is in excess of 800 mm in KwaZulu-Natal (1 070 mm near Durban).

### **2. Run off**

Average annual surface run off is estimated at 50 150 million m<sup>3</sup>. Of this volume about 20 350 million m<sup>3</sup>/a is already utilised, and an additional 13 250 million m<sup>3</sup> could be available for use, mainly through the provision of further regulation

storage by the construction of large dams.

### 3. Groundwater

Total utilisable groundwater resource is estimated as 6 000 million m<sup>3</sup>/annum.

Current usage from this source is estimated at 2 000 million m<sup>3</sup>/a.

### 4. Existing Storage

Total storage capacity of about 27 000 million m<sup>3</sup> has been created by the construction of large dams. 91% of this storage capacity is provided by dams owned by DWAF.

### 5. Water Usage

Total water usage is estimated at 20 050 million m<sup>3</sup>/a in 1996. The distribution between the various sectors is as follows:

- Irrigation and afforestation: 62%
- Urban and domestic: 11%
- Mining and industrial: 8%
- Environmental: 19%

Possible future (2030) water requirements in South Africa was estimated (1996) at 30 415 million m<sup>3</sup>/a. This figure will be largely impacted on by the water demand management programmes that are now being implemented.

### 6. Scenario for Future (2030) Utilisation of Surface Water Resources

Based on work done in 1996 the relative relationships between utilised water, losses and spillage, available water (i.e. still surplus) and transferred water for the various regions of the country is summarised on the attached figure. To be noted is that

in some areas utilisation exceeds the local resource and hence requires augmentation from other catchment.

### **7. Interbasin Transfer Projects**

Key details of existing interbasin transfer projects are on page 10.

### **8. Large Dams in South Africa**

The tale on page 11 compares some of the salient features of the 6 largest storages in South Africa (including Katse in Lesotho), with the Three Forges Dam.

### **9. Water Demand Management**

Over the past 6 years new policies with respect to demand management and water conservation were adopted and are being implemented. These policies

required:

- Suppliers of water to focus on the efficiency of their reticulation systems i.e. reduce leakage, meter all usage.
- Users to improve on the efficiency of water use i.e. prevent wastage, losses due to leaking; consider re-use; use processes requiring less water; be waterwise in gardening practices; improve efficiency in irrigation practices etc.
- Adoption of a water pricing strategy reflecting the economic value of water, whilst recognising the right to water by those who cannot afford to pay for primary use.
- Adoption of measure to ensure sustainable use of water.



## 10. Dam Safety Regulation

- All dams capable of storing more than 50 000 m<sup>3</sup> of water and with a wall height of 5 m or more are subject to dam safety regulations.
- There are currently 3 854 dams registered as dams with a safety risk of which 55% are classified as category I dams (low hazard) and only 8% are category III dams (high hazard potential).
- For about one third of dams inspected (765) so far, the spillway capacities have been identified as insufficient.
- DWAF is owner of 272 registered dams.

## 11. Shared Water Courses

There are four transboundary rivers

shared by South Africa namely: Limpopo, Komati, Maputo (Usuthu) and Orange Rivers. These together drain 60% of land area, and contribute 32% of our total surface run off. Given the semi-arid nature of this part of the region together with the high level of economic activity in South Africa, these rivers also represent the most developed transboundary watercourses in the SADC region. In several cases, water demand already exceeds the available resources.

The SADC Protocol on Shared Water Courses provides guidance for dealing with issues with neighbouring countries such as the sharing of water, flood management, water quality and environmental needs.

## 12. Our Largest River

The Orange River basin extends over 964 000 km<sup>2</sup>, 62% of which falls within South Africa. The main watercourse originates as the Senqu River in Lesotho, is 2 300 km long and passes through different landscapes and climatic regions on its way to the ocean. Total natural run off from the basin is 11 200 million m<sup>3</sup> per year. More than 90% of water usage along the Orange River is for irrigation, much of which is for low value grain and fodder crops.

## 13. Hydropower

Very few hydropower stations exist in South Africa, mostly due to the shortage of water.

### Notable ones are:

- Gariep Dam  
320 (Installed capacity Megawatt)
- Van der Kloof Dam  
260 (Installed capacity Megawatt)
- Muela (part of LHWP)  
72 (Installed capacity Megawatt)

### Notable pumped-storage projects are:

- Drakensberg  
1 000 (Installed capacity Megawatt)
- Palmiet  
400 (Installed capacity Megawatt)  
(In South Africa Eskom uses mostly thermal power stations to produce electricity. Their total installed generating capacity is 39 870 MW).

## **14. Challenges**

### **Increasing Demand**

- Water demand has been growing at 4 - 5% per annum since the 1930s.
- Many catchment are under stress and some are over allocated;
- The Vaal river system requires specific intervention

### **Decreasing water quality and ecological degradation**

- Increasing industrialisation
- Historical pollution sources e.g. abandoned mines
- Diffuse source pollution e.g. agriculture, dense settlements
- Habitat destruction
- Unsustainable abstraction
- The poor feel the worst impacts

## Water Resources related statistics for South Africa

Item	South Africa
Population 1996 (million)	40,6
Area (million km <sup>2</sup> )	1,22
Average volume of surface run off (billion m <sup>3</sup> )	50
Utilisable annual volume of groundwater (billion m <sup>3</sup> )	6
Annual utilisable water resource per capita (m <sup>3</sup> per person)	1 400
Number of dams in ICOLD register of dams (refer to attached table for comparison)	539
Total storage capacity of dams (million m <sup>3</sup> )	27 000
Installed capacity of hydropower plants (megawatt)	2050

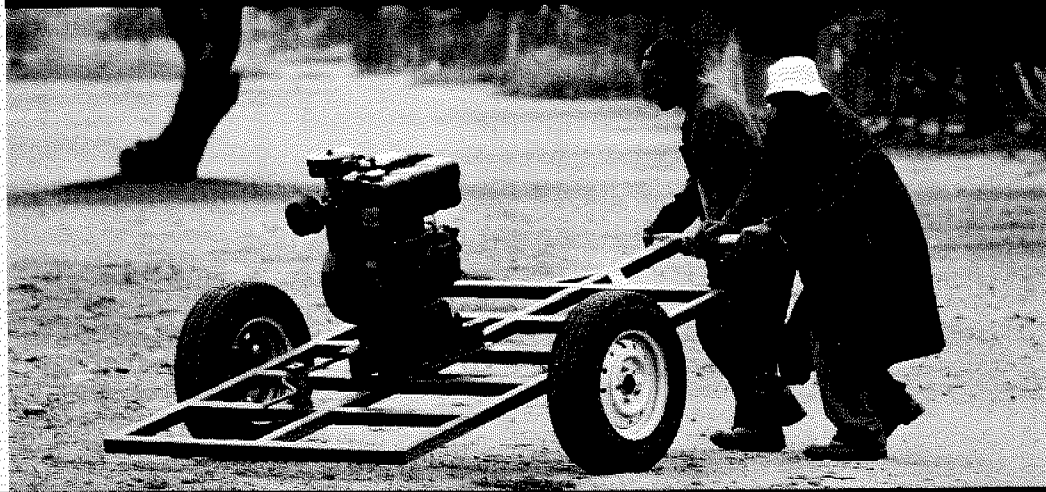
## Interbasin Transfer Projects

Source Basin	Recipient basin	Average Current Transfer	Use
Vaal	Crocodile	615	Industrial, domestic (Hand Water)
Vaal	Olifants	150	Industrial (power)
Olifants	Sand	30	Pietersburg
Crocodile	Limpopo	6	Gabarone
Komati	Olifants	111	Industrial (power)
Usutu	Olifants	81	Industrial (power)
Assegai	Vaal	81	Industrial, domestic
Buffalo	Vaal	50	Industrial, domestic
Tugela	Vaal	630	Industrial, domestic
Tugela	Mhlatuze	46	Industrial, domestic
Mooi	Mgeni	69	Industrial, domestic
Fish	Sundays	200	Industrial, domestic
Orange	Buffels	10	Industrial, domestic
Orange	Lower Vaal	52	Industrial, domestic
Orange	Riet	189	Irrigation
Orange	Fish	643	Irrigation, domestic, industrial
Caledon	Modder	40	Industrial, domestic
LHWP 1A	Vaal	574	Industrial, domestic
LHWP <small>B1(W.e.1.2004)</small>	Vaal	350	Industrial, domestic

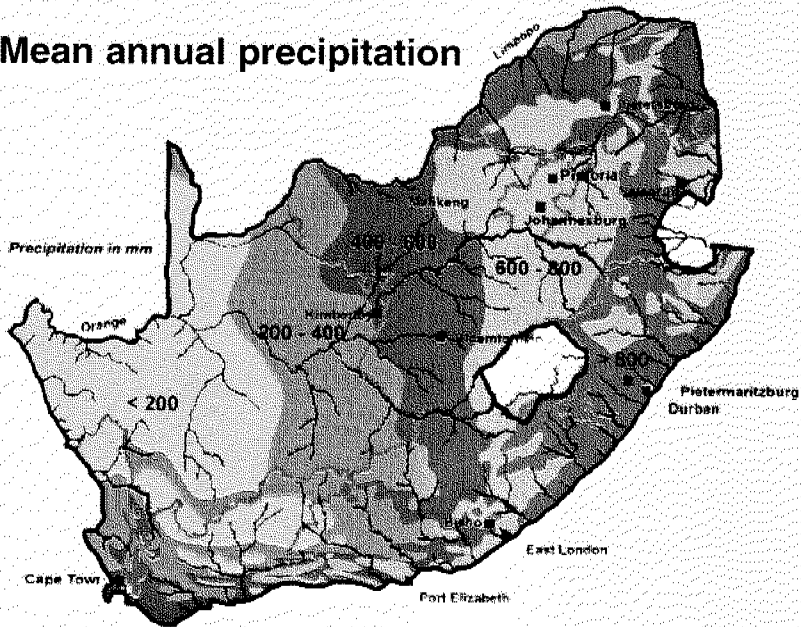
## Large Dams in South Africa

Dam	Storage Capacity (million m <sup>3</sup> )	Surface area (Hectare)	Wall Height (m)	Spillway Discharge Capacity (m <sup>3</sup> /s)	Type of Structure	Volume Material (mill)
Gariep	5 670	35 765	88	17 440	concrete arch-gravity	1,70
Van der Kloof	3 237	13 866	107	22 000	concrete arch-gravity	1,00
Sterkfontein	2 616	6 726	93	none	Embankment	19,00
Vaal	2 529	29 193	63	12 500	concrete gravity	0,44
Pongolapoort	2 445	13 273	89	4 650	concrete arch	0,60
Katse	1 950	4 180	185	6 250	concrete arch	2,40

# Overview of Water Resources Availability Utilisation






# Mean annual precipitation

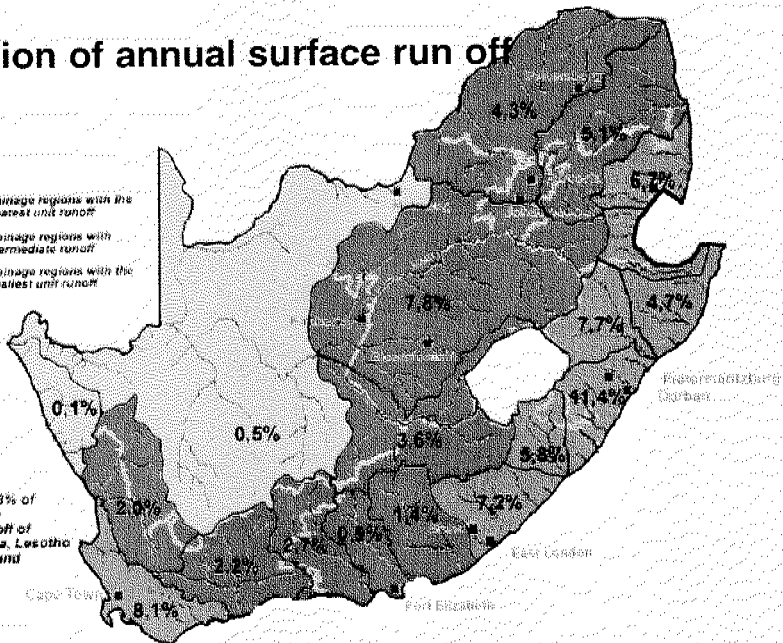




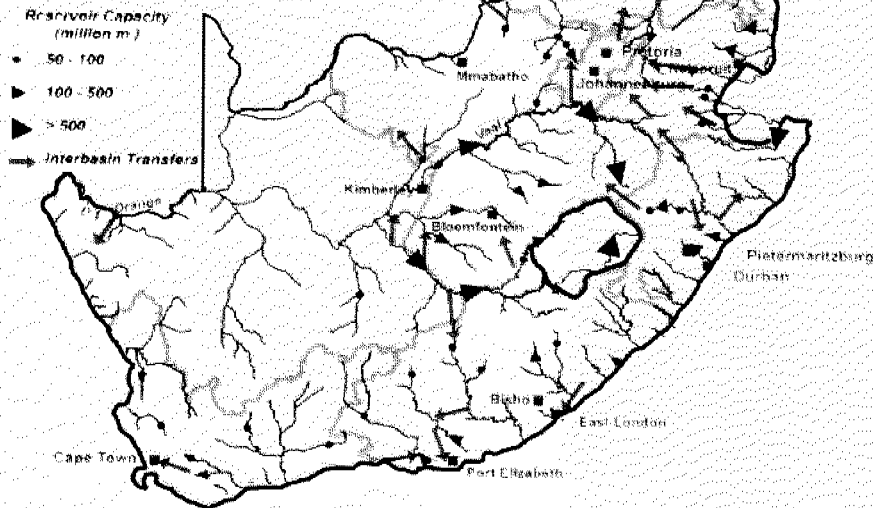
# Distribution of annual surface run off

-  Drainage regions with the greatest unit runoff
-  Drainage regions with intermediate runoff
-  Drainage regions with the smallest unit runoff

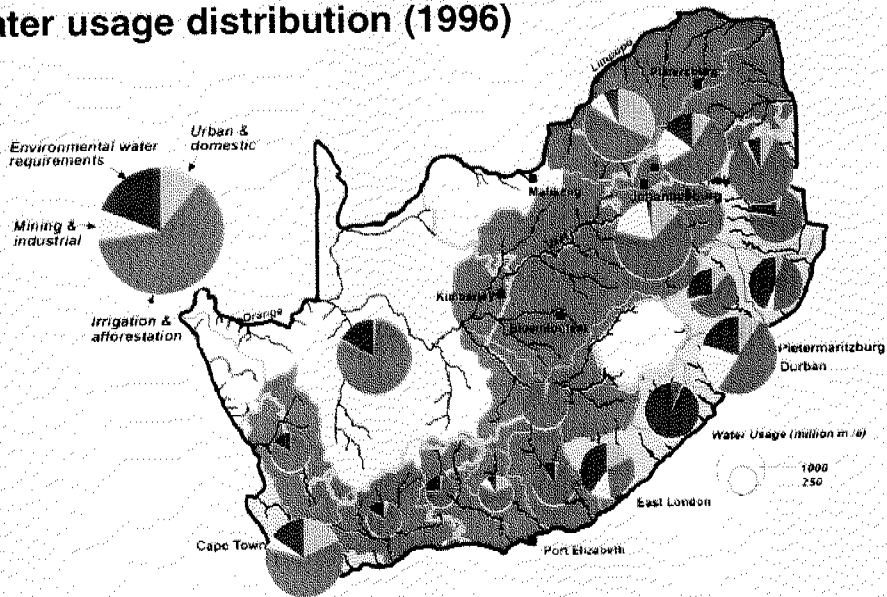
A 4.3% = 4.3% of the average annual runoff of South Africa, Lesotho and Swaziland



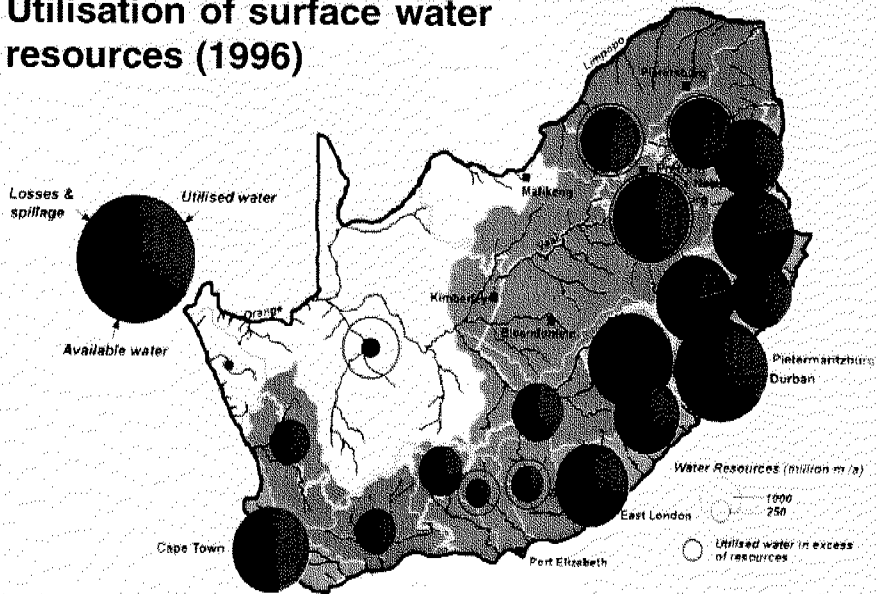
# Major existing dams and interbasin transfers



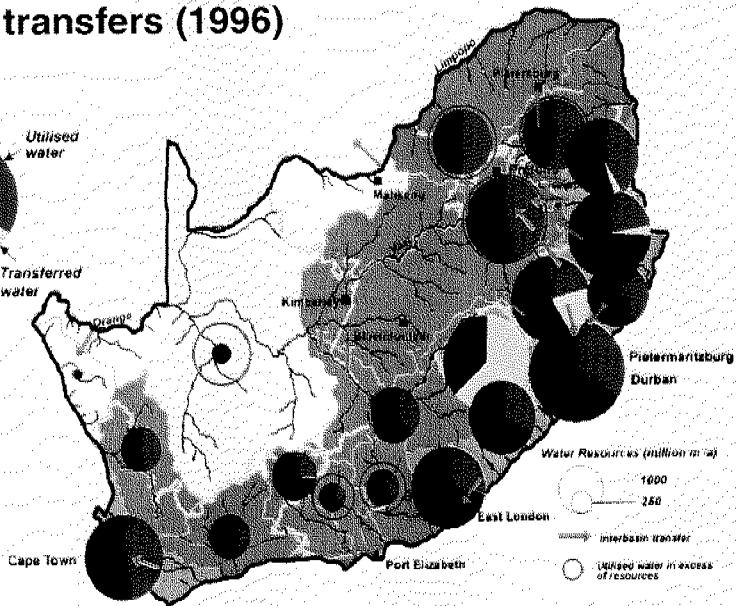
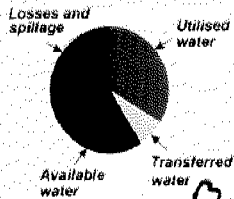
# Water usage distribution (1996)



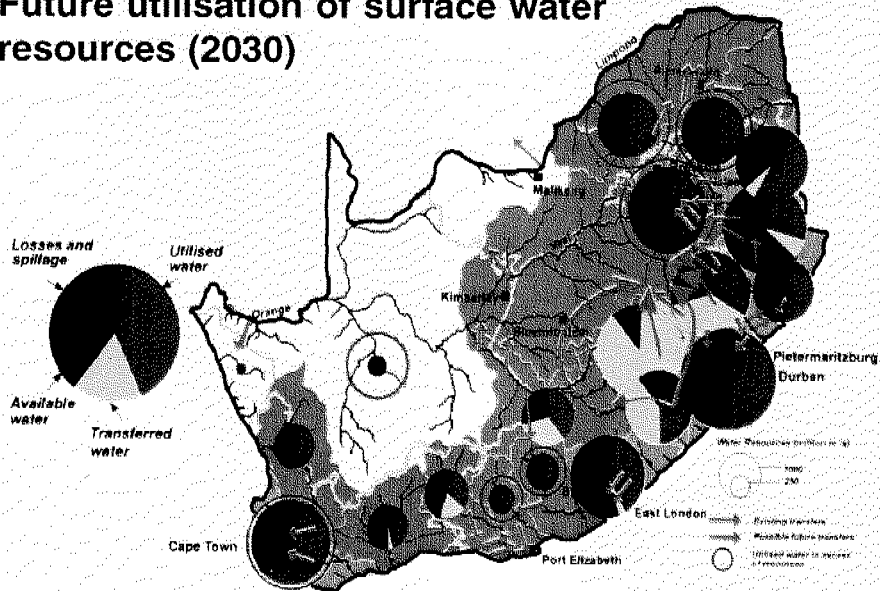
# Utilisation of surface water resources (1996)







# Water utilisation showing interbasin transfers (1996)

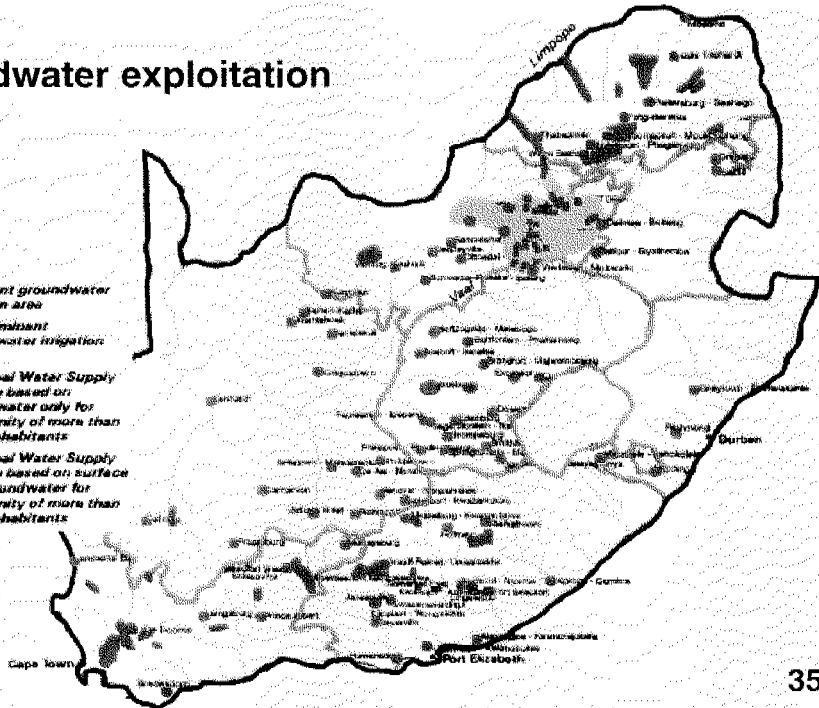


# Future utilisation of surface water resources (2030)



# Groundwater exploitation

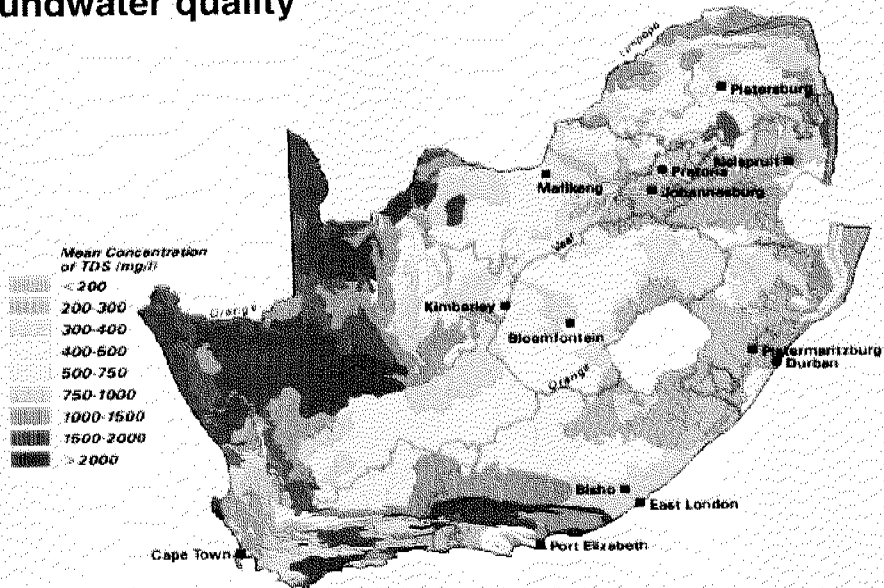
-  *Dominant groundwater irrigation area*
-  *Less dominant groundwater irrigation area*
-  *Municipal Water Supply Scheme based on groundwater only for community of more than 2500 inhabitants*
-  *Municipal Water Supply Scheme based on surface and groundwater for community of more than 2500 inhabitants*







# Groundwater quality





## Water services Perspective



# Our government's goal

To ensure that all South Africans have equitable access to effective, economical and sustainable water supply and sanitation services.



# Core focus areas

- **Basic services:**

to ensure that all people in South Africa have access to

- Basic supply
- Basic sanitation
- Free basic services

- **Higher levels of services:**

to facilitate

- Higher levels than basic services where appropriate - supply and sanitation
- Economic growth and development
- Associated needs such as schools, clinics and services

- **Effective water use:**

to promote effective and sustainable

water use and management in the domestic and associated sector

- Demand and conservation management
- Water resource protection
- Appropriate choice and allocation of water resources
- Alignment with integrated catchment management

- **Environmental management:**

to promote support and facilitate

- Environmental protection
- Environmental health
- Water related diseases management (e.g. cholera)

- **Ensure effective and sustainable water services management:**

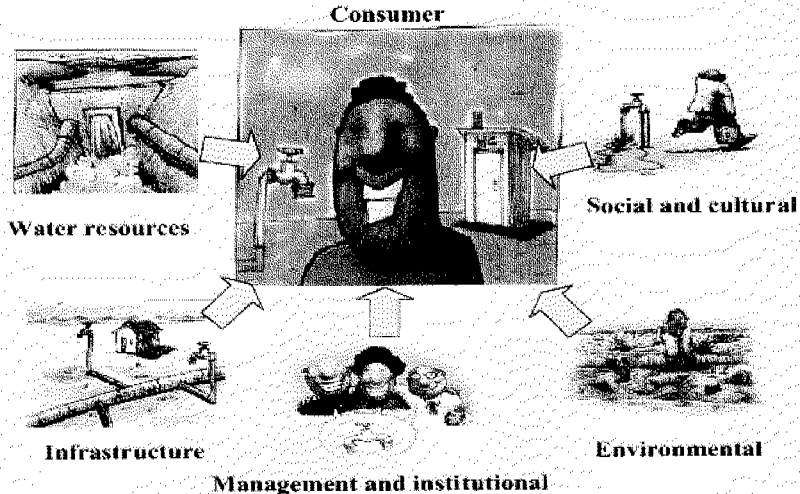
to promote and ensure viable water

services business

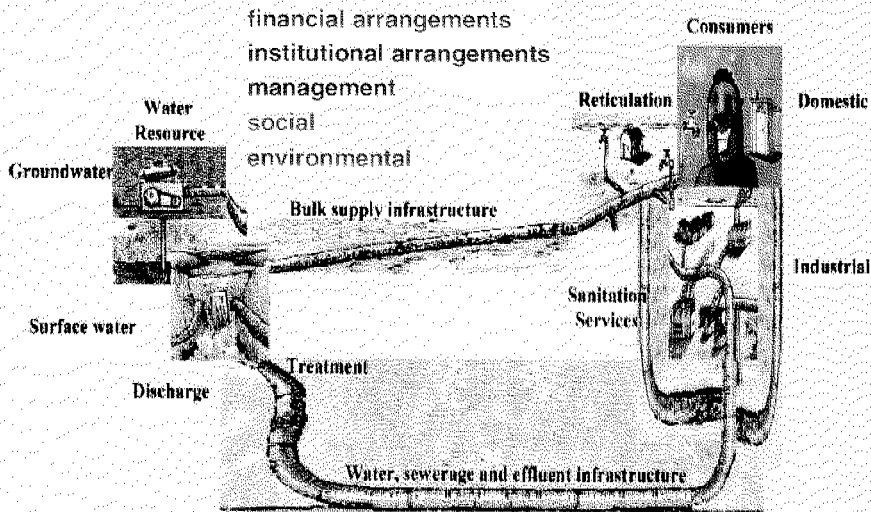
- Management functions and institutional arrangements
- Financial management
- Social and consumer management
- application of business principles

# Understanding the business

The water services business, which includes water supply, sanitation and effluent services, consists of the following core components:



However, water services is an integrated business and must be managed (planned, developed, operated and maintained) as a complete non-stop business:





# Key principles

- **Core responsibility:**

Local Government is responsible and accountable for water services.

- **Water services is an integrated business:**

Water services can not be rendered in isolation from development of other sectors. Co-ordination is necessary between all tiers of government and role players.

- **Business approach:**

To ensure sustainability and viability of water services, the focus is not only on infrastructure, but also on effective and efficient management, proper institutional arrangements, sustainable delivery and financial

management. It also implies the application of the core principles of planning, leadership, organising and control.

- **Environmental integrity:**

The natural and health environment must be considered and protected in all development activities.

- **Water and environment has economic value:**

The way in which water services are provided must reflect the growing scarcity of good quality water and must not undermine the long term sustainability and economic growth.

- **Equitable allocation:**

The limited natural resources available should be equitably distributed among the regions, taking account of population and levels of development.

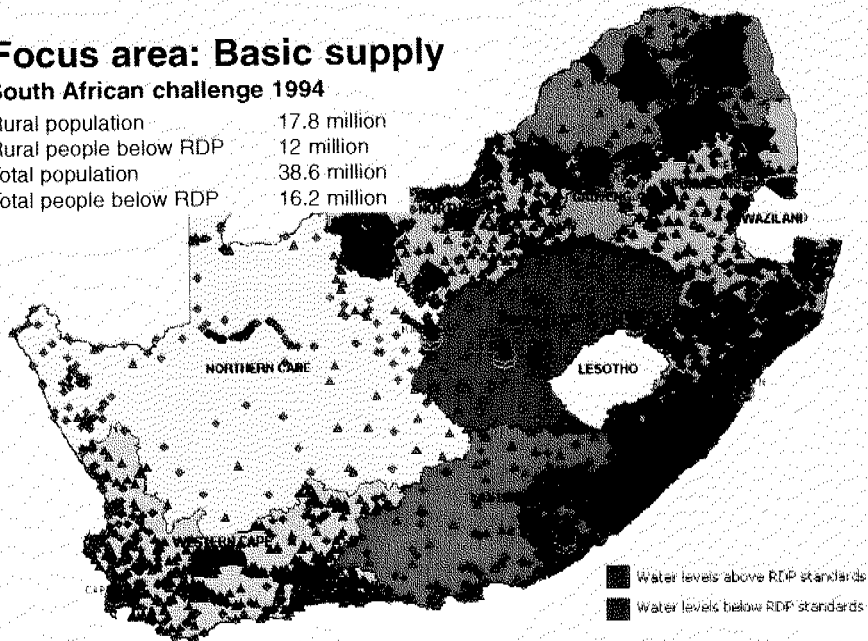
# Focus area: Basic services

- **Basic services criteria:**
  - Water supply within 200 meters walking distance
  - 25 litres per capita per day
  - Water of acceptable quality
  - Water available 98% of the time
  - Sustainable flow of 10 litres per minute
  - Acceptable, effective, hygienic & affordable sanitation services

# Focus area: Basic supply

## South African challenge 1994

Rural population	17.8 million
Rural people below RDP	12 million
Total population	38.6 million
Total people below RDP	16.2 million

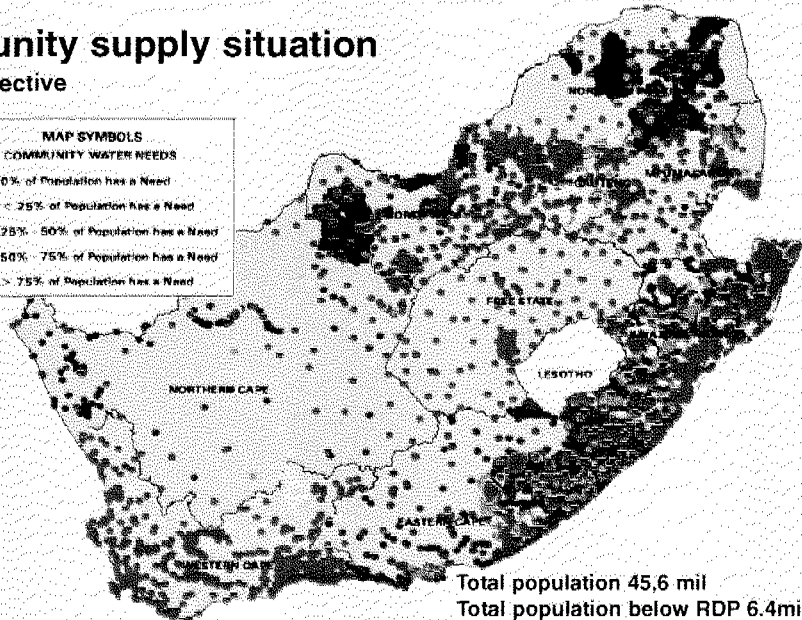


# Community supply situation

2003 perspective

**MAP SYMBOLS**  
**COMMUNITY WATER NEEDS**

- 0% of Population has a Need
- ◌ 25% of Population has a Need
- ◐ 25% - 50% of Population has a Need
- ◑ 50% - 75% of Population has a Need
- > 75% of Population has a Need



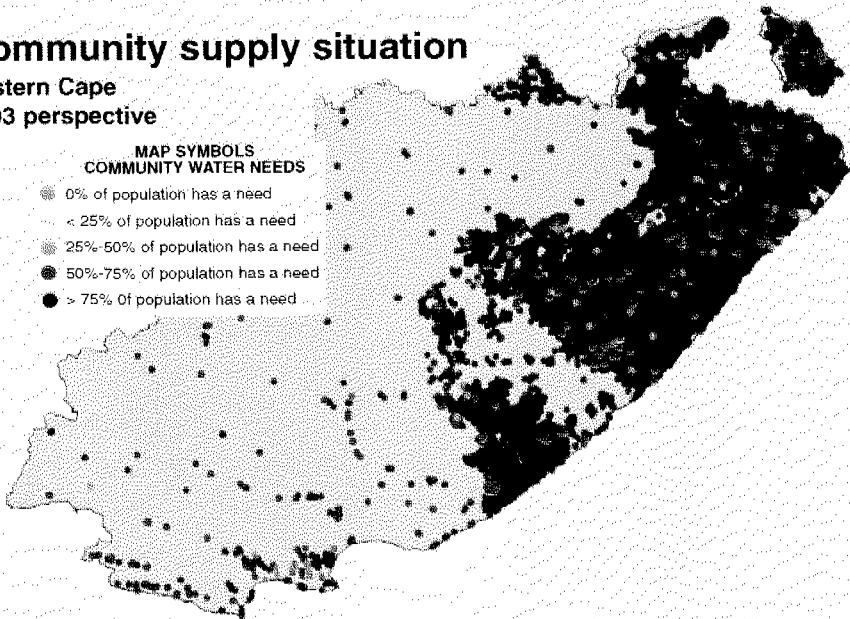
Total population 45,6 mil  
Total population below RDP 6.4mil

# Community supply situation

Eastern Cape  
2003 perspective

## MAP SYMBOLS COMMUNITY WATER NEEDS

- 0% of population has a need
- (with light stippling) < 25% of population has a need
- (with medium stippling) 25%-50% of population has a need
- (with dark stippling) 50%-75% of population has a need
- (solid black) > 75% of population has a need

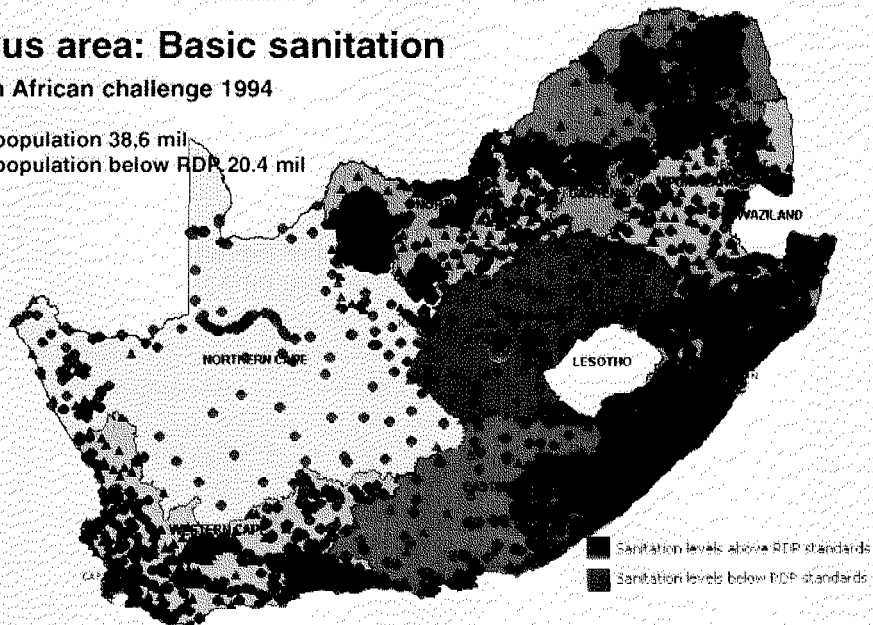


# Focus area: Basic sanitation

South African challenge 1994

Total population 38,6 mil

Total population below RDP 20.4 mil

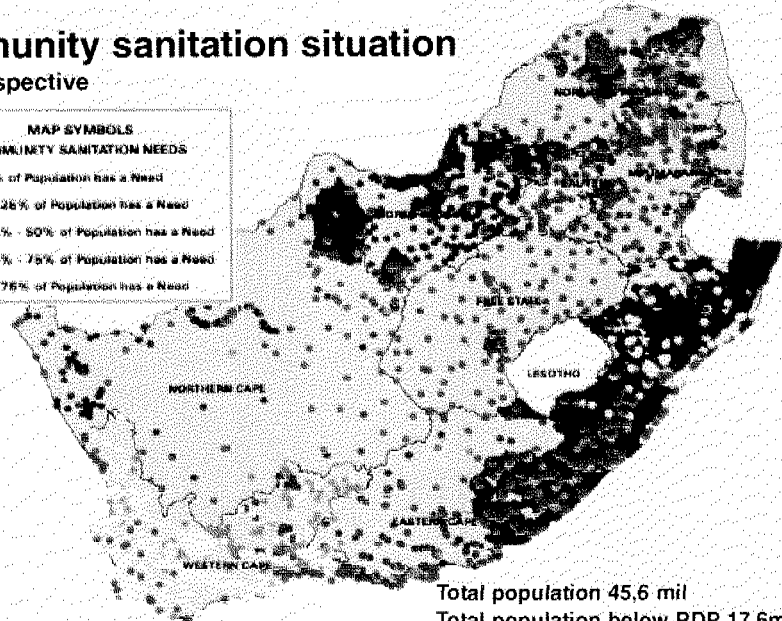


# Community sanitation situation

2003 perspective

**MAP SYMBOLS**  
**COMMUNITY SANITATION NEEDS**

- 0% of Population has a Need
- < 25% of Population has a Need
- ◐ 25% - 50% of Population has a Need
- ◑ 50% - 75% of Population has a Need
- ◒ > 75% of Population has a Need

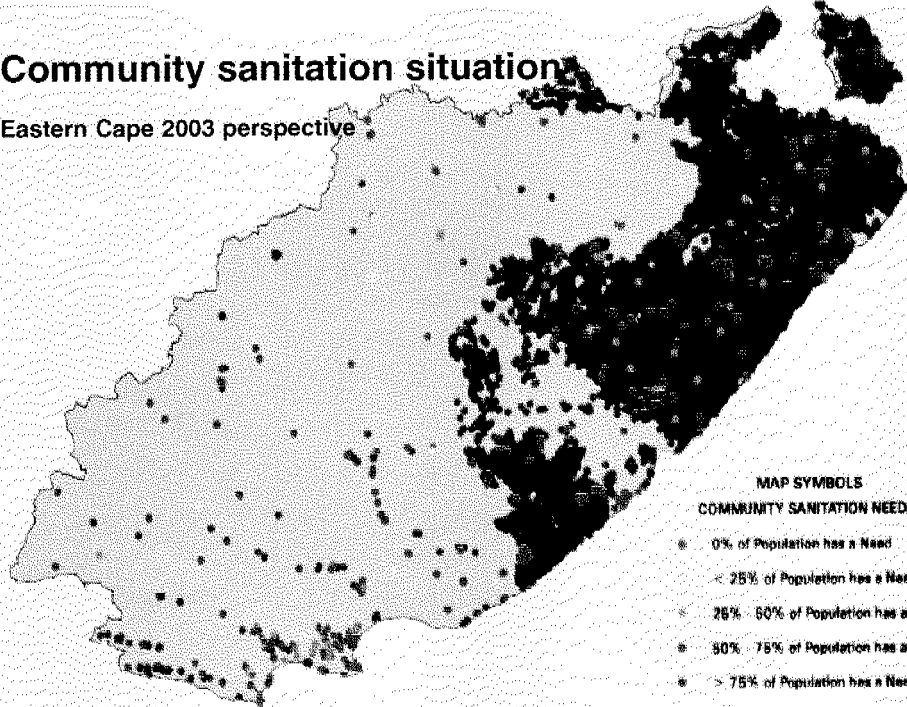


Total population 45,6 mil  
Total population below RDP 17,6mil



# Community sanitation situation

Eastern Cape 2003 perspective



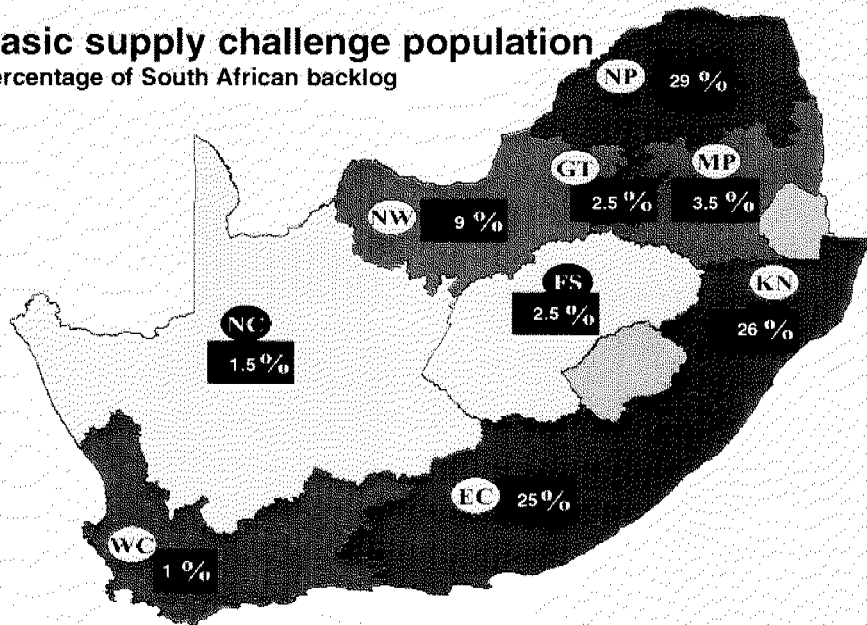
## MAP SYMBOLS

### COMMUNITY SANITATION NEEDS

- 0% of Population has a Need
- ◐ < 25% of Population has a Need
- ◑ 25% - 50% of Population has a Need
- ◒ 50% - 75% of Population has a Need
- ◓ > 75% of Population has a Need

# Basic supply challenge population

Percentage of South African backlog



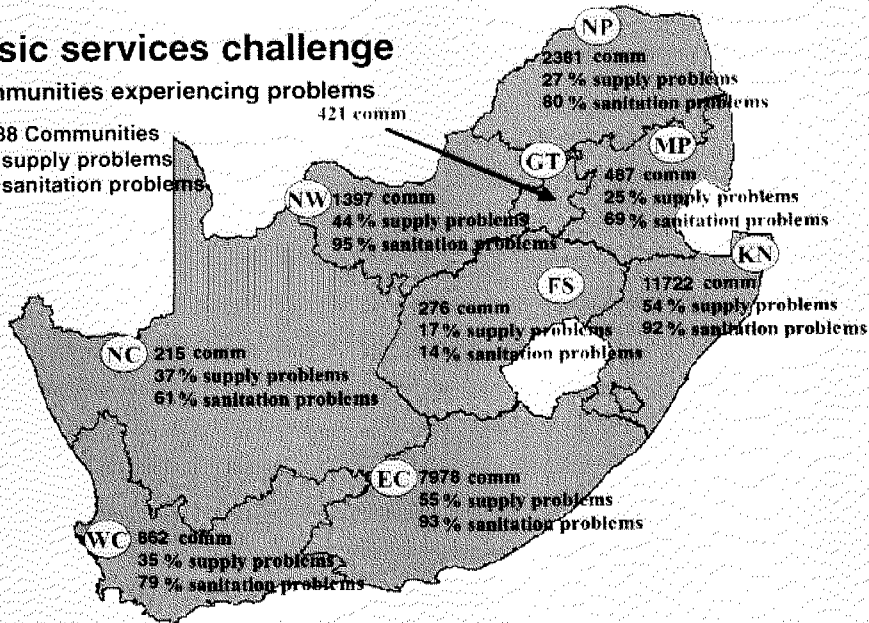
# Basic services challenge

Communities experiencing problems

25 738 Communities

50% supply problems

89% sanitation problems



# Schools and clinics needy situation

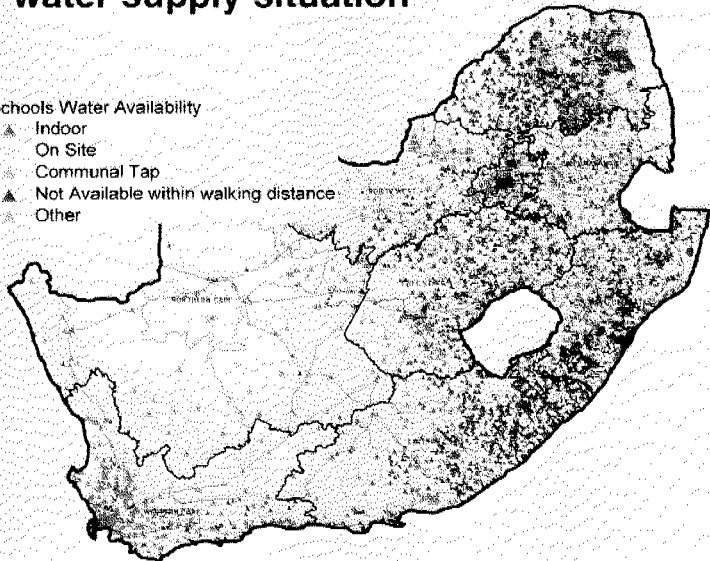
December 2002

	Schools	Clinics
<b>Total</b>	<b>27 914</b>	<b>4 361</b>
<b>Water supply inadequate</b>	<b>57%</b>	<b>61%</b>
<b>Sanitation inadequate</b>	<b>66%</b>	<b>69%</b>

# School water supply situation

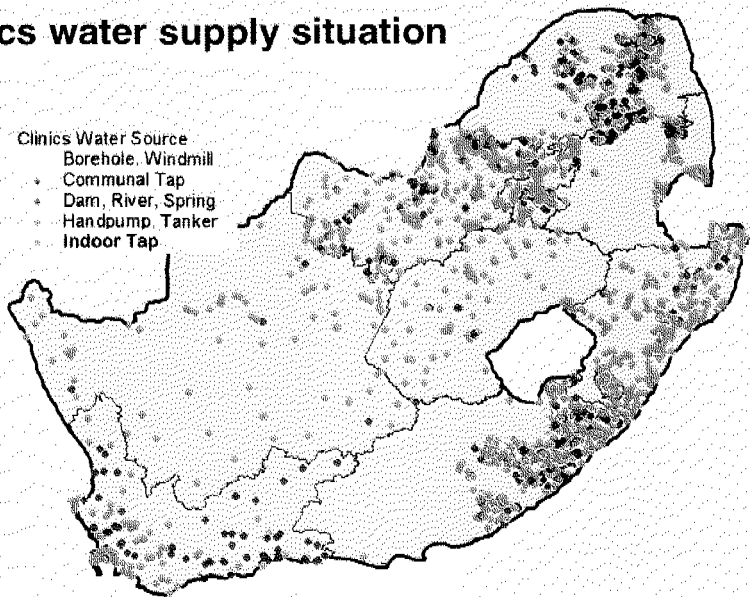
## Schools Water Availability

- ▲ Indoor
- On Site
- ◐ Communal Tap
- ▲ Not Available within walking distance
- ◑ Other



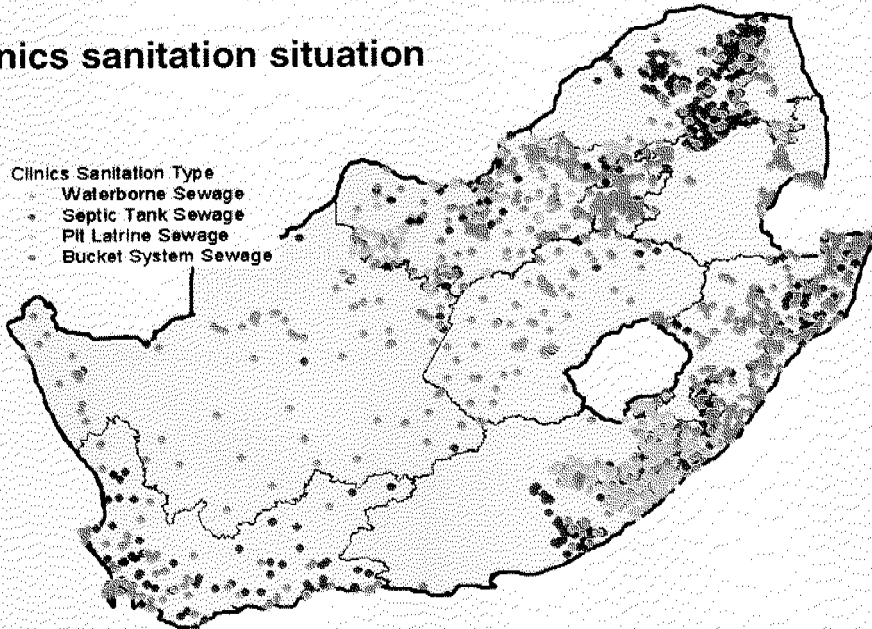
# Clinics water supply situation

- Clinics Water Source
- Borehole, Windmill
  - Communal Tap
  - Dam, River, Spring
  - Handpump, Tanker
  - Indoor Tap



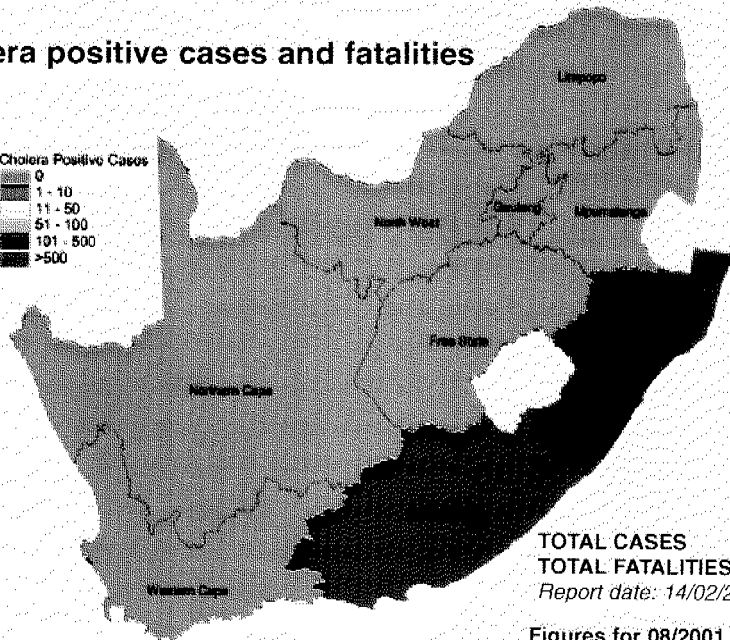
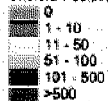
# Clinics sanitation situation

- Clinics Sanitation Type
- Waterborne Sewage
  - Septic Tank Sewage
  - Pit Latrine Sewage
  - Bucket System Sewage



## Cholera positive cases and fatalities

### Cholera Positive Cases



**TOTAL CASES**      19103  
**TOTAL FATALITIES**      125  
*Report date: 14/02/2003*

Figures for 08/2001 - 01/2003



# Water services delivery

People served (December 2002)

	<b>Basic supply</b>	<b>Total benefiting</b>	<b>Expenditure</b>
<b>DWAF</b>	<b>5.9 mil</b>	<b>7,7 mil</b>	<b>R 5.57 bil</b>
<b>CMIP,DH</b>			
<b>DPW</b>	<b>3.9 mil</b>	<b>9,6 mil</b>	<b><sup>2</sup>R3.80 bil</b>
<b>Total</b>	<b>9.80 mil</b>	<b>17,3 mil</b>	<b>R 9.37 bil</b>

<sup>1</sup> urban, rural, bulk, and partially served

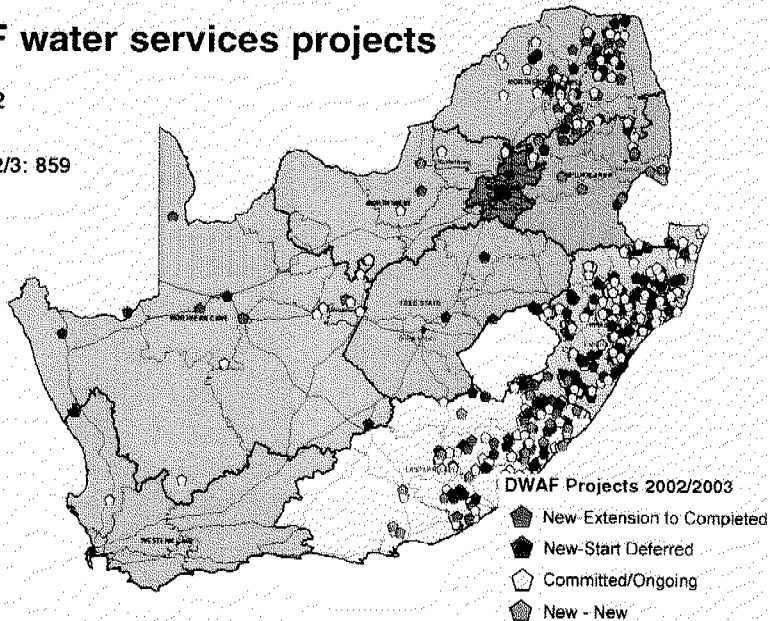
<sup>2</sup> also utilising existing services

• excludes local government and private initiatives

# DWAF water services projects

Dec 2002

Total 2002/3: 859



# Sanitation total perspective

People served (December 2002)

	Basic sanitation	Total benefiting	Expenditure
DWAF	0.62 mil	1,06 mil	R 558 mil
CMIP,DH			
DPW	2.90 mil	<sup>1</sup> 5,60 mil	<sup>1</sup> R 1.88 bil
<b>Total</b>	<b>3.52 mil</b>	<sup>2</sup> <b>6,66 mil</b>	<sup>4</sup> <b>R 2.46 bil</b>

<sup>1</sup> 2,2 mil housing

<sup>2</sup> urban, rural, bulk

<sup>3</sup> also utilising existing services

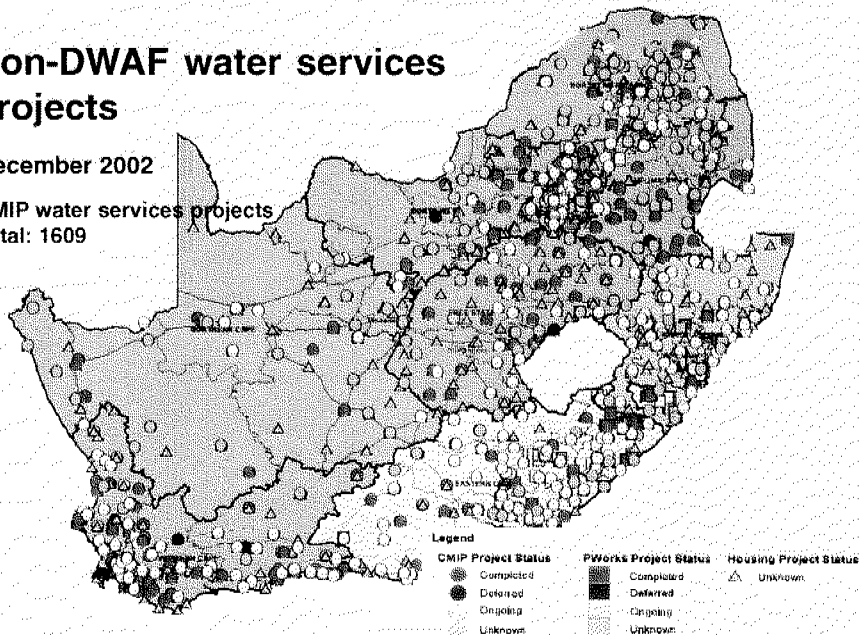
<sup>4</sup> estimated

• excludes local government and private initiatives

# Non-DWAF water services projects

December 2002

CMIP water services projects  
Total: 1609



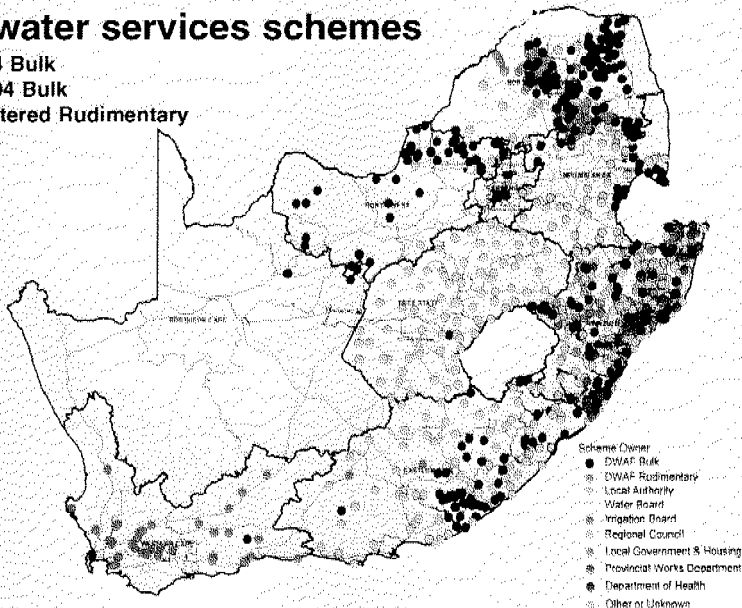
# DWAF water services schemes

316 Pre 1994 Bulk

196 Post 1994 Bulk

45 LM Clustered Rudimentary

557 Total



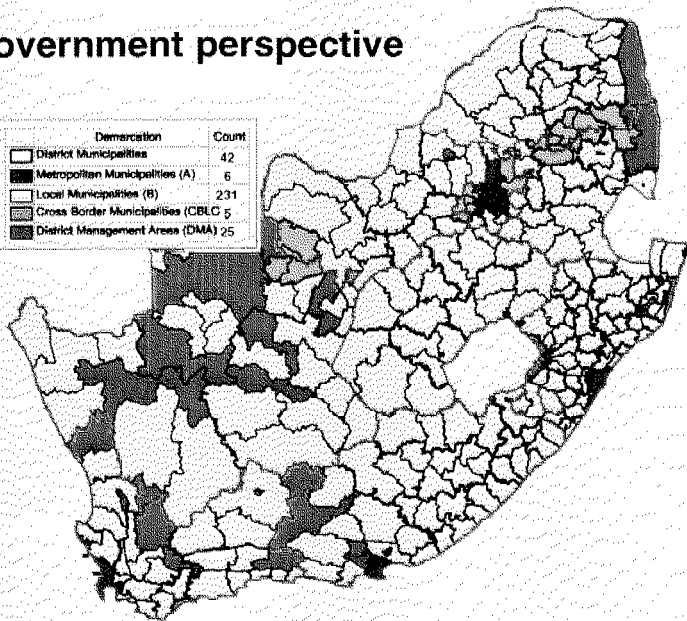
# Institutional perspective

## Local government

<b>Local government level</b>	<b>Description</b>	<b>Total</b>
District management	Metropolitan council (A)	6
	District municipality	42
Local level	Cross border municipality	5
	<b>Sub-total</b>	<b>53</b>
	Category B	231
	<b>Total</b>	<b>284</b>
	District management area	25

## Local government perspective

Demarcation	Count
District Municipalities	42
Metropolitan Municipalities (A)	6
Local Municipalities (B)	231
Cross Border Municipalities (CBLC)	5
District Management Areas (DMA)	25








# Provincial perspective

## Eastern Cape

### MAP SYMBOLS

#### COMMUNITY WATER NEEDS

-  0% of Population has a Need
-  < 25% of Population has a Need
-  25% - 50% of Population has a Need
-  50% - 75% of Population has a Need
-  > 75% of Population has a Need

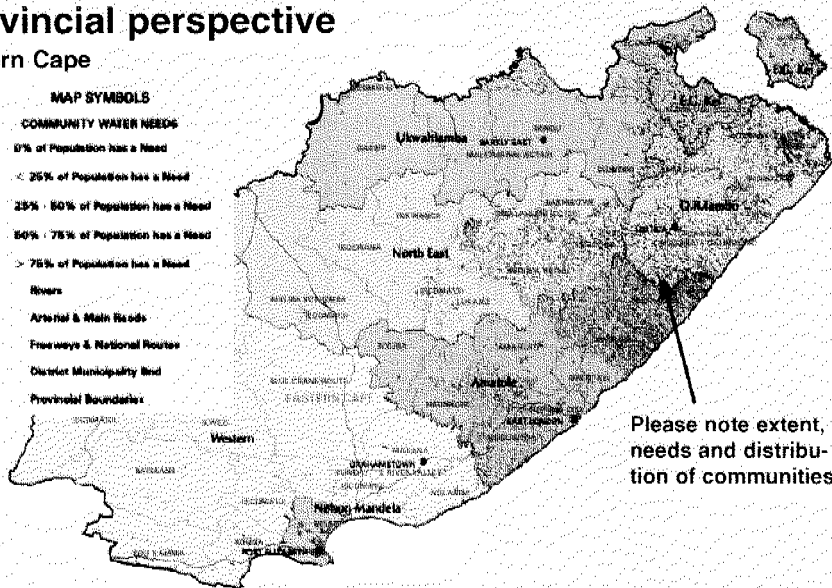
#### Rivers

#### Arterial & Main Roads

#### Free ways & National Routes

#### District Municipality Bnd










#### Provincial Boundaries

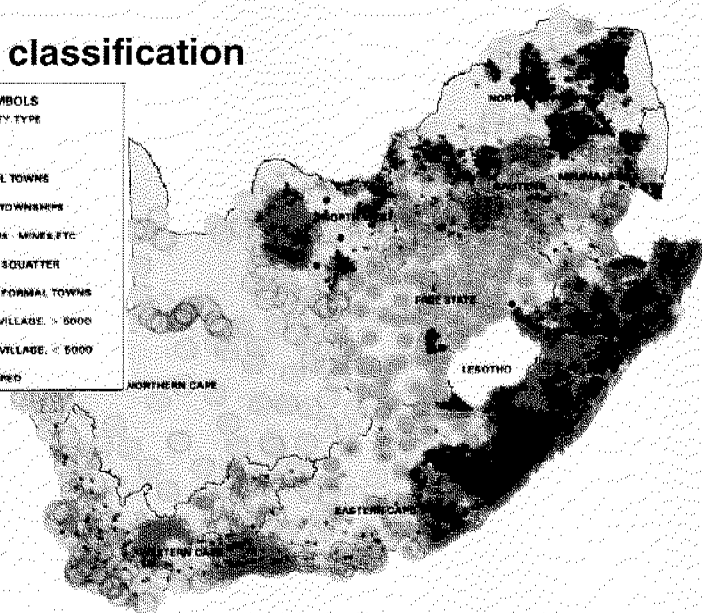


Please note extent, needs and distribution of communities



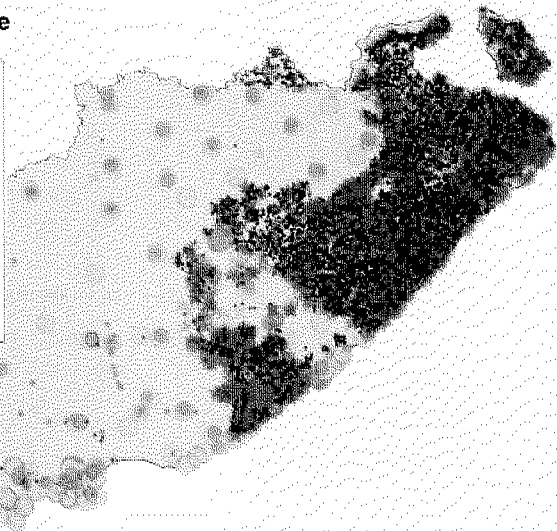
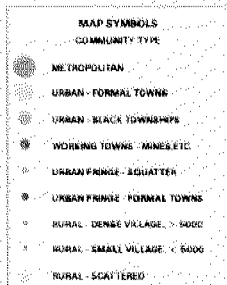
# Community classification

MAP SYMBOLS	
COMMUNITY TYPE	
	METROPOLITAN
	URBAN - FORMAL TOWNS
	URBAN - BLACK TOWNSHIPS
	WORKING TOWNS - MINES, ETC.
	URBAN FRINGE - SQUATTER
	URBAN FRINGE - FORMAL TOWNS
	RURAL - DENSE VILLAGE. > 5000
	RURAL - SMALL VILLAGE. < 5000
	RURAL - SCATTERED



# Community classification

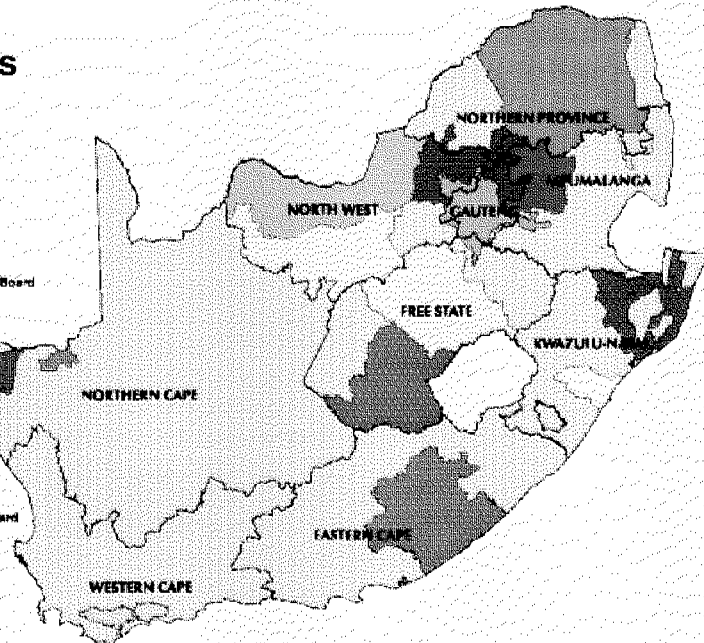
## Eastern Cape perspective



# Water boards

## Water Boards

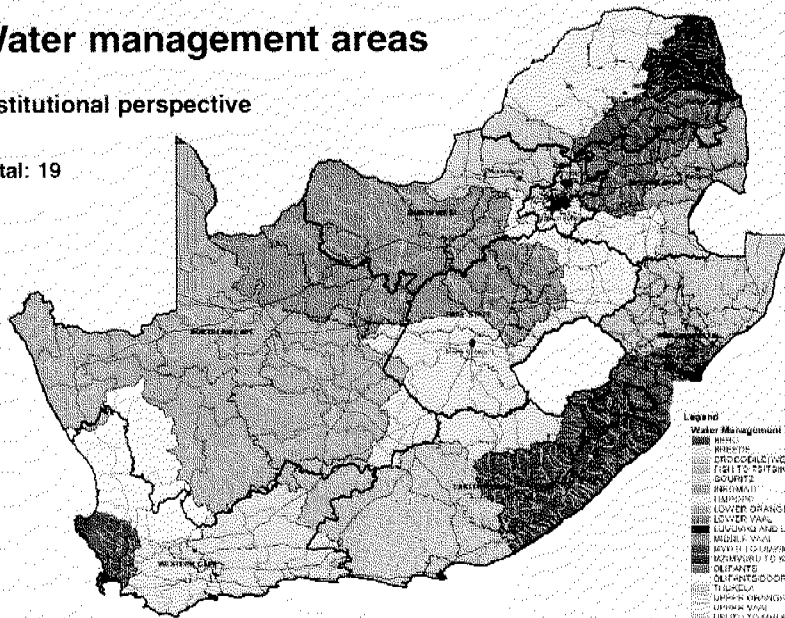
- Lesalla Northern Water
- Botshelo
- Suerbuck Ridge Water Board
- Magalies Water
- Kangoa Water
- Rand Water
- Sedibeng
- Mbatuze Water
- Bloom Water
- Namakwa Water
- Peledrift Water Board
- Umgani Water
- Amatzis Water Board
- Albany Coast Water Board
- Overberg Water



# Water management areas

Institutional perspective

Total: 19



# Communities and water resources

## Communities utilisation of water resources

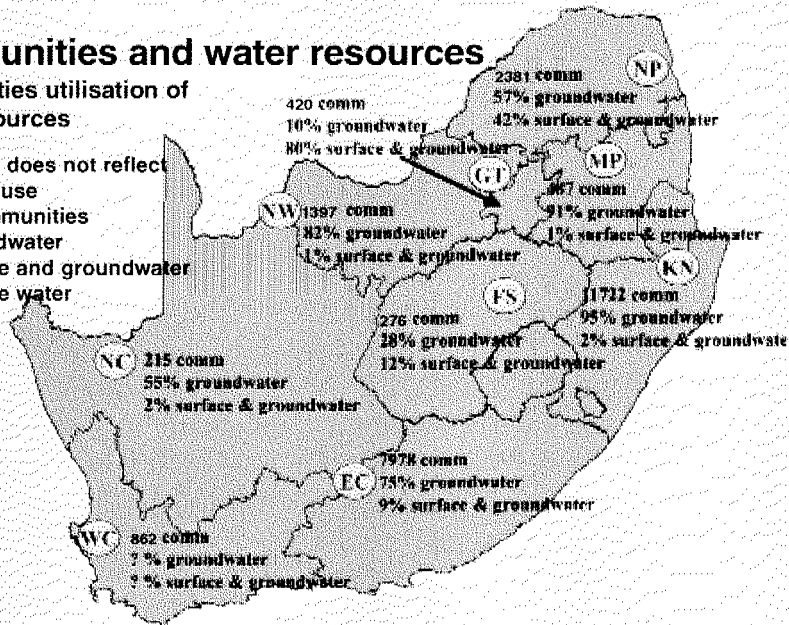
Percentage does not reflect population use

25 738 communities

74% groundwater

14% surface and groundwater

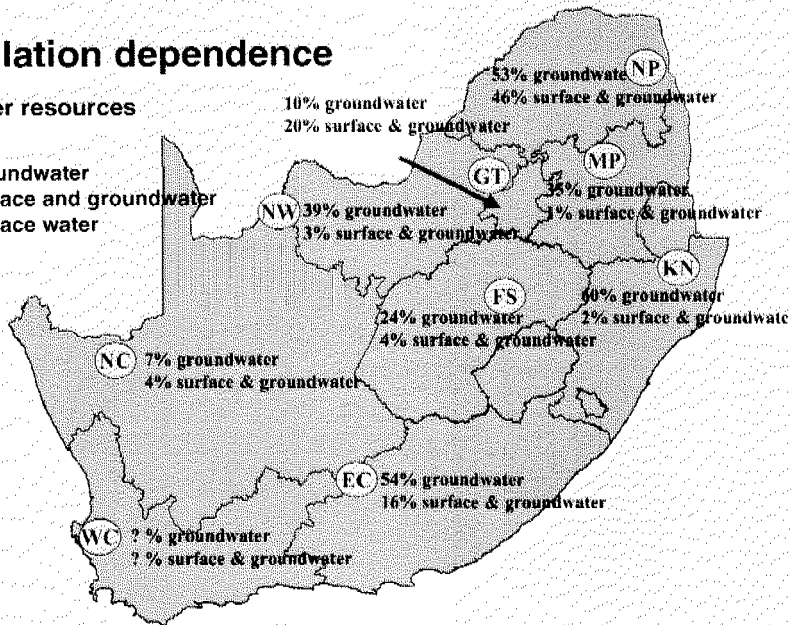
12% surface water



# Population dependence

On water resources

46% groundwater  
17% surface and groundwater  
37% surface water



# Free basic water

- **Goal:** "the provision of free basic amounts of electricity and water to our people will alleviate the plight of the poorest among us" (Mbeki 2001)
- **Criteria:** 6000 litres per household per month
- **Implementation date:** 1 July 2001
- **Responsibility:** Local Government

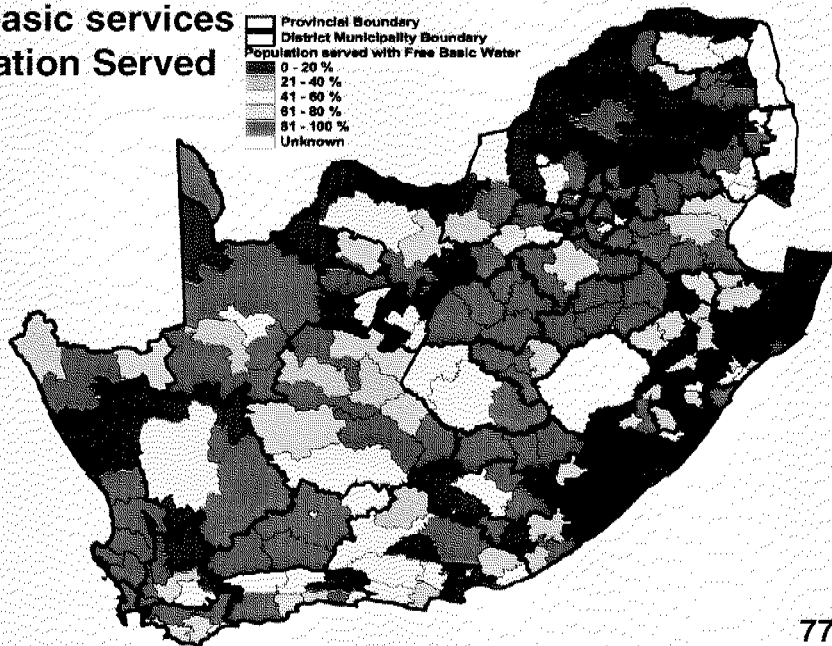
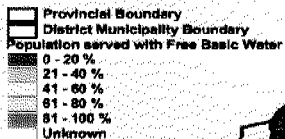
# Local authorities implementing free basic water

March 2003

Province	Total	Providing FBW	Providing via indigent policy
Western Cape	30	30	24
Eastern Cape	43	25	20
Northern Cape	31	26	23
Free State	21	20	10
Kwazulu-Natal	55	34	17
North West	27	20	12
Gauteng	13	12	6
Mpumalanga	27	18	7
Limpompo	27	18	7
Totals	262	194	126



# Free basic services Population Served



# Effective water services management

## Focus on:

- Effective and integrated planning: Water services Development Planning process, integrated development planning and integrated rural development programme
- Effective business management: Local Government, Water boards and providers
- Effective project planning
- Effective co-ordination and institutional arrangements
- Leadership: strategies, capacity building, Partnerships
- Monitoring and control; regulatory function; standards, norms and regulations; monitoring and evaluation systems
- Effective communication and information support

# Water Services Development Planning

## **Purpose:**

Provides Water Services Authorities with an integrated management tool which enables them to achieve access by all consumers to efficient, effective and sustainable water services.

## **Alignment:**

Integrated Development Planning, Integrated Rural Development Programme, other sector and development programmes.

## **Priority areas:**

1. Delivery: Provision of basic water and sanitation services (including Free Basic Water/Sanitation). Provision of higher levels of service, associated needs.
2. Water resources protection and management
3. Water services institutional arrangements

# Water Services Development Target

## **Presently:**

Progressively targeting all 284 Municipalities:

- 6 Metros
- 47 District Municipalities
- 231 Local Municipalities

With historical inheritance:

- 86% of these have embarked upon WSDP preparation process

## **Future:**

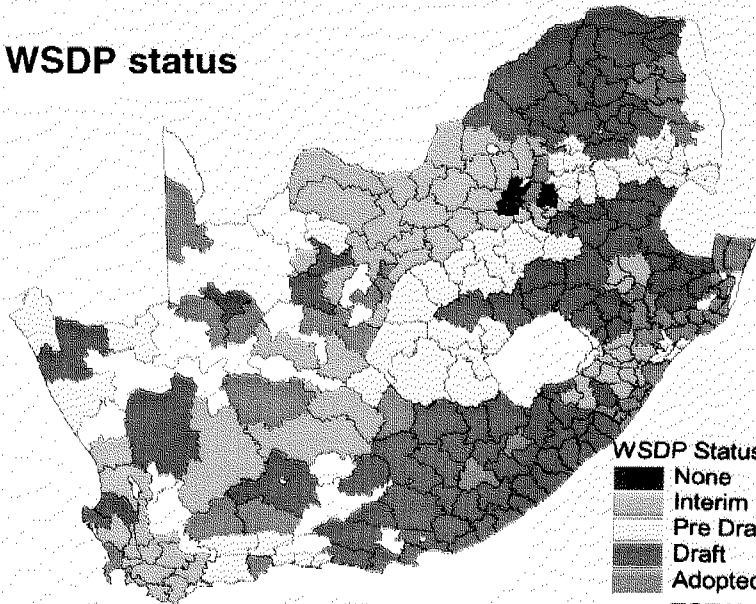
Upon resolution of "Powers & functions" only Water Services Authorities to submit WSDPs

# Water Services Development Support System

## Includes:

- DWAF'S WSDP Regional co-ordinates in all 9 regions/provinces offering daily support/assistance
- WSDP guidelines for Water Services Authorities: General Overview and Preparation Guide, July 2001; aligned to new IDP guide pack, released August 2001
- Web-based WSDP submission tool, including limited decision support, available by November 2001
- Financial support to assist with preparation in priority areas, particularly Presidential Development Nodes

# WSDP status



WSDP Status	
None	6
Interim	2
Pre Draft	52
Draft	103
Adopted	51
<b>TOTAL</b>	<b>284</b>

# Water services planning

ISRDP

priority rural nodes 2002

focus also on other nodes

