

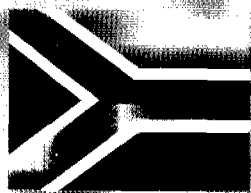
SUSTAINABLE

MANAGEMENT OF

# FRESH *water*

## RESOURCES IN SOUTH AFRICA

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## F O R E W O R D



In 1994 the new South African Government of National Unity inherited the legacy of inequality that had characterised the previous system of governance in the country. Nowhere was this more evident than in the deeply entrenched inequity in access to and control over water resources. It was clear that a supremely innovative framework for sustainable water resources management would be needed. Water needed to be seen as a priority to satisfy the grossly neglected basic human needs of the past, and the growing water demands of the present, to help alleviate poverty and democratise society, to protect ecosystems and to contribute to economic and social development.

South Africa has committed itself to Agenda 21. The country set out to review its old water policy and legislation within the context of the principles established by Agenda 21. A four-year process of review of the country's water policy was launched, with intensive nation-wide public consultation, including with people that have historically been excluded from policy-making - people in deep rural areas, women, and those that had no access to drinking water and sanitation. A new National Water Policy for South Africa was adopted in 1997. The policy takes South Africa away from a system of inequality in access to and control over the country's scarce water resources by a minority sector of the population, and leads it to a modern, representative system founded on the fundamental values of fairness and equity, and optimal yet sustainable use.

A new era of water management has dawned for South Africa. This publication provides a brief overview of the core changes brought about by South Africa's new national water policies, of the progress we have made over the past four years, of the work that remains to be done and the challenges that we need to face to achieve sustainable management of freshwater resources. In a very real sense, the responsibility for implementing our new Water Law does not lie with the National Government alone, but with all South Africans right across the spectrum of society.

PUBLISHED BY  
WATER AND FORESTRY  
PRIVATE BAG X313  
0001 PRETORIA

PROFESSOR KADER ASMAL, MP  
MINISTER OF WATER AFFAIRS AND FORESTRY  
March 1998

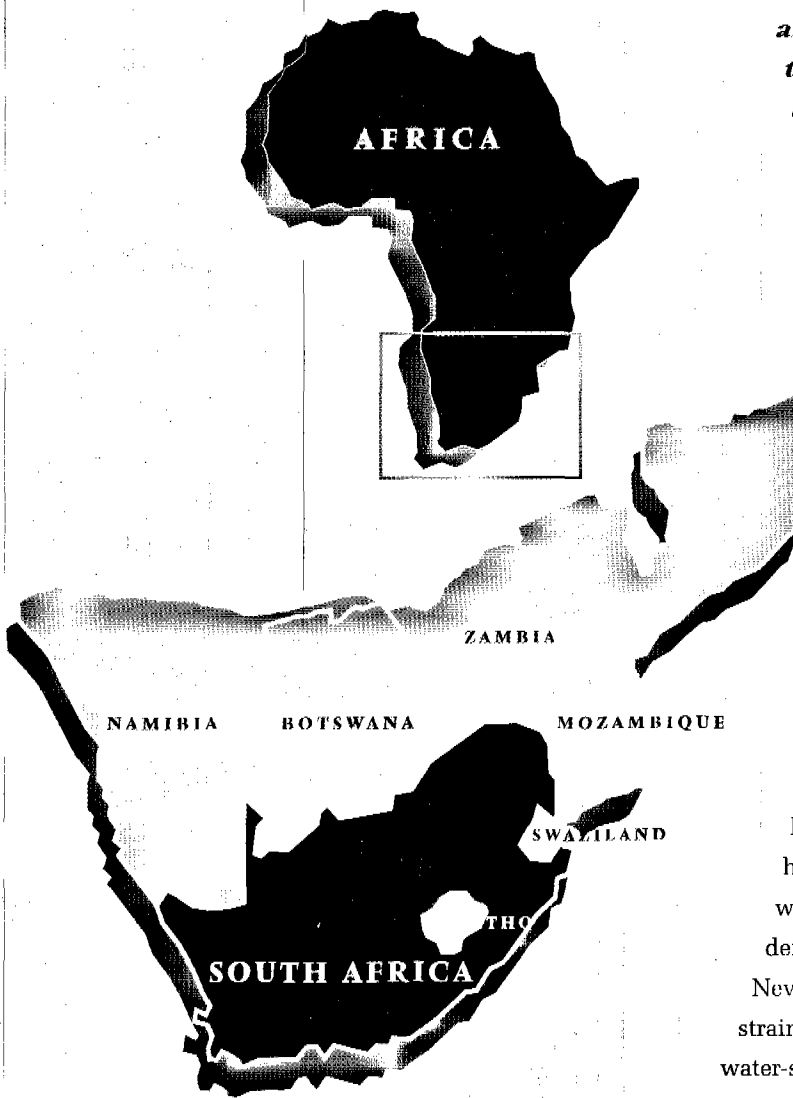
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# FRESHWATER RESOURCES IN SOUTH AFRICA

*Globally, freshwater resources are under pressure to meet growing demands from different use sectors, while pollution is reducing the suitability of existing resources for use. Through Agenda 21, UNCFD articulated the need for new approaches to freshwater development, management and use as global freshwater resources become increasingly vulnerable and the potential for regional water crises rises.*

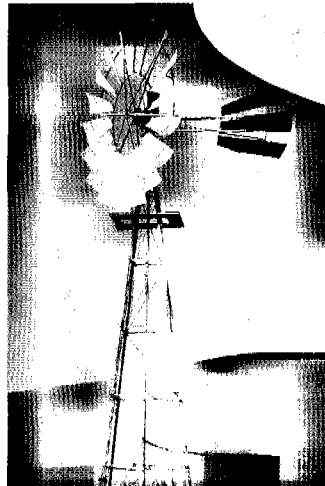
As with much of Sub-Saharan Africa, South Africa experiences a semi-arid climate. In addition, water resources are very unevenly distributed across the country. At the present population level of around 40 million, there is just over 1200 kl per person per year of available fresh water. This places South Africa on the threshold of the internationally-used definition of "water stress."

The industrial centre of the country has grown around mineral resources and not around a major watercourse. Urban expansion thus took place in areas of low freshwater availability. This has led to the construction of large dams and to a highly developed water infrastructure that brings water from areas of high rainfall to areas of high demand, sometimes across international boundaries. Nevertheless, water supply has been a continual constraint to social and economic development in arid or water-scarce areas.



Some of the realities affecting available freshwater in South Africa are:

- 12 million people do not have ready access to safe water supply and sanitation
- rainfall in substantial parts of the country is unreliable, with the risk of prolonged droughts and floods
- most of the significant sites for dams have already been used, and presently store about 90% of exploitable surface runoff
- conservative estimates are that all available freshwater resources will be fully allocated by around 2030.



## POLICY-MAKING AND LEGISLATIVE CONTEXT

*The changes in South African society, our growing population, and the imperatives for equity of access to water, have placed new demands on what is, although renewable, a limited resource.*

South Africa has been compelled to develop new water policy and legislation, and to take action in order to ensure that all people have access to water in their daily lives, that the productive use of water in our economy is encouraged, and that the environment which provides us with water and which sustains our lives and economy is protected.

The process of revision of water policy and legislation has taken four years, supported at each step by intensive public consultation and debate. In the meantime, initiatives to provide safe drinking water and sanitation for millions of South Africans have been proceeding as rapidly as practically possible.

The country's new water policy and legislation have been founded on the principles of equity and sustainability. National Government has the obligation to ensure that water resources are protected and used for the benefit of all South Africans, now and in the future. The commitment to sustainable use of water



resources means that, even where the immediate demands for development are very high, society must find different development approaches which ensure that water resources are not degraded or over-utilised beyond recovery.

Key steps since 1994 in the revision of South Africa's water policy and law are:

- *White Paper on Water Supply and Sanitation*
- Discussion document *Water Law Principles*
- *White Paper on a National Water Policy for South Africa*
- *New Water Services Act*
- *National Water Bill* submitted to Parliament.

## EQUITY AND SUSTAINABILITY

In order to ensure equity of access to water, ownership of water is no longer vested in riparian landowners. Rather, national government is responsible for custodianship of water resources. This responsibility includes the allocation of water resources.

The key to balancing equity with sustainability lies in new legal provisions for the "Reserve" - the water needed to supply basic human needs and to protect aquatic ecosystems in order to ensure ecologically sustainable development. Only the Reserve is a right to water in law: all other uses of water resources are authorised according to the criteria of public interest, equity, efficiency and optimal utilisation.

Riparian rights to water have been replaced by water use authorisations of fixed limited duration, with provisions for revision on a regular basis if necessary. There is also no longer any "private" water in South Africa, and this has ended the uncontrolled use of underground water.

Authorisations and licences will be issued for all water use, including waste disposal. There is provision for re-use and recycling of water between users within a catchment on a mutually agreed basis, as long as equity and sustainability are not compromised, and provision for market-based trading in water.

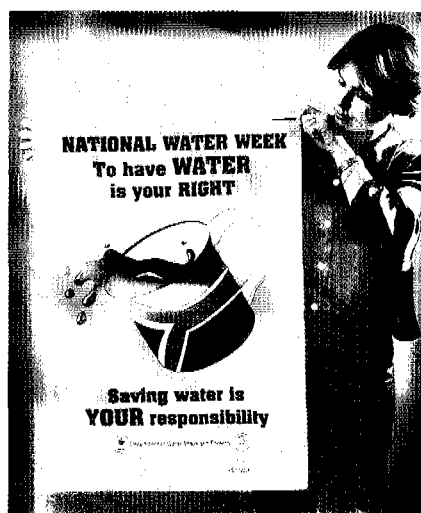
### SUSTAINABILITY

SOME FOR ALL, FOR EVER

*South Africa will manage its water resources through equitable allocation and utilisation of water for social and economic benefit, and through environmentally sustainable practices. Sustainability is not regarded as an end in itself, but as a critical approach by which to ensure the renewable supply of water to provide for the needs of both present and future generations.*



Water resources are not regarded as being freely available for uncontrolled impacts and emissions of wastes, yet it is not realistic to prevent at all costs impacts and waste discharges to the water environment. These impacts and discharges can and must be managed and regulated to achieve adequate long-term protection of water resources. With the pressures of rapid and extensive economic development, there has been a need to establish protection measures which are practical and flexible, and which can take into account the extreme variability in the nature and characteristics of aquatic ecosystems.



## NATIONAL WATER CONSERVATION CAMPAIGN

*This campaign, which commenced in 1995, employs measures such as school water audits, water-wise gardening programmes, informative billing systems and an annual National Water Week which ensures major publicity for the concept of water conservation.*

*The Schools Educational Programme has to date reached over 600 000 children, in over 1500 schools.*

The National Water Policy of 1997 outlines a new and broader approach to protection of water resources, and integrates, in a structured decision-making framework, two key features. These are, firstly, resource-directed measures for protection which focus on the water resource as an ecosystem, through clear objectives which represent the desired level of protection for that resource. Secondly, there are source-directed controls. These include a wide range of regulatory measures which are focussed on the sources of impacts on water resources, and which are intended to control impacts in such a way that the objectives for resource protection are achieved.

A classification system for water resources provides the context for setting appropriate resource quality objectives and source controls. A system of economic incentives will be put in place to foster the development of low-waste and non-waste technologies, and to reduce pollution and other impacts on water resources.

Voluntary as well as mandatory measures for water conservation ensure that water is used efficiently. Effective demand management is a factor in all water supply, management and development decisions.



## THE WORKING FOR WATER PROGRAMME

*Many catchment areas in South Africa are riddled with invasive alien trees that use precious water before it can reach public streams. Launched in September 1995, the Working for Water Programme today employs over 40 000 previously unemployed people to clear catchment areas of invasive alien plants. More than 50% of these people are women; more than 40% are youths between 18 and 25 years; many are disabled. The social benefits to these people and their families, and the ecological advantages, are tremendous.*

## WATER SUPPLY AND SANITATION

SAFE WATER  
SUPPLY AND  
SANITATION FOR  
MARGINALISED  
COMMUNITIES  
HAS BEEN THE  
GOAL OF  
12 PRESIDENTIAL  
PROJECTS,  
INITIATED IN  
1994.



The provision of safe drinking water and adequate sanitation is a critical factor in breaking the cycle of poverty and under-development. National government has afforded an extremely high priority to community water supply and sanitation since 1994, and the national Community Water Supply and Sanitation Programme is now in its fourth year of operation.

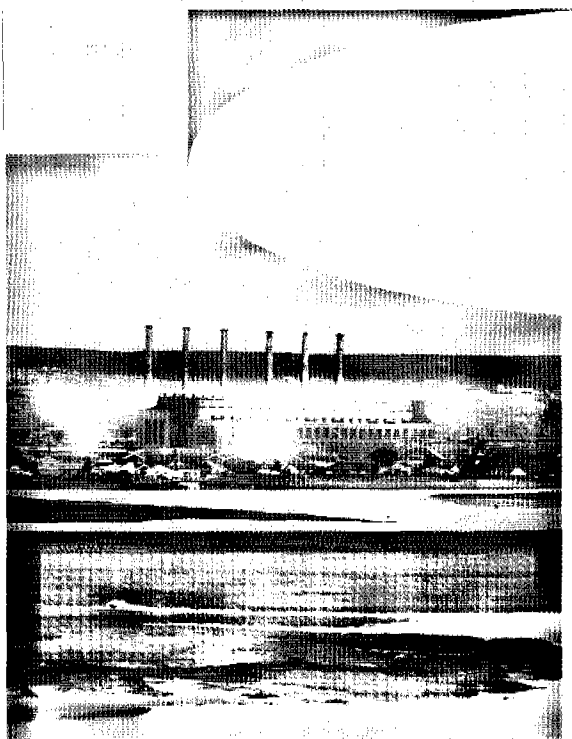
Provision of water supply and sanitation in South Africa is regulated by way of the new Water Services Act of 1997. The Act provides, in its initial stages of implementation, for a minimum of 25 litres of water per person per day within 200 metres of their homes, at a "lifeline" tariff affordable to both the household and the country as a whole.

The target groups for this provision are mainly rural settlements in economically depressed regions of the country, where water gathering is a labour-intensive burden that falls primarily on women and children.

More than 1 000 water supply and sanitation projects have been successfully implemented throughout the country since 1994, with large-scale community involvement and capacity building. Delivery to the approximately 12 million people who are still without access to water and sanitation will be phased across the country according to provincial and local priorities, with job creation an added benefit for communities in economically depressed areas.



## ECONOMIC ISSUES



Economic development is a key building block in the process of social restoration and democratisation of South African society. Water, in turn, is key to economic development. Beyond the constitutional right to water for basic human needs, the new legislation makes provision for water to be used in rebuilding the economic functioning of marginalised sectors of the country, and in combatting poverty.

A Water Pricing Policy with prices that reflect the true value of water will be developed within a reasonable time frame. All significant water use will be charged for, regardless of where it occurs, including the use of water resources for effluent disposal, and the reduction of runoff where this is to the detriment of downstream water users. The ultimate goal is for a realistic portion of the financial cost of providing water and access to it, to be recovered from users, with the intention of promoting efficient use of the resource.

Exceptions to this are the adoption of "lifeline" tariffs for water services in respect of basic human needs. The disadvantaged will be assisted to afford water charges through special dispensations. Water subsidies will be phased out in the future.



## TRANSPARENCY AND ACCOUNTABILITY

*The proposed new legislation requires that the Minister, Director General and Catchment Management Agencies consult with stakeholders before making decisions.*

*Transparency and accountability will be strengthened by the establishment of a Water Appeals Board to hear disputes. Disputes on matters of law will be referred to the High Court.*

Although the ultimate responsibility for water resources management rests with the Minister, many functions will either be delegated or devolved to lower tiers of government. There will thus be shared responsibility for, and user participation in, water management.

Water allocation will be controlled and administered at local level within the framework of national policy, and within regional water management areas that coincide with natural river catchments. Water User Associations, incorporating current Irrigation Boards, will be formed to accommodate all the users who share the same resource, in order to broaden and democratise the use of water.

## INTEGRATED CATCHMENT MANAGEMENT

*All water in the water cycle is considered to be part of the common resource, and there is a move towards management of water resources on a catchment basis.*

*New legislation provides for formal structures and processes for integrated water resource management at a catchment and local level, through the establishment of Catchment Management Agencies with strong user representation. A great strength of such agencies is that they provide a forum within which all the appropriate government agencies and stakeholders work towards consensus on the management and development objectives for a catchment, and on the land and water management strategies which are required in order to meet those objectives.*

## BUILDING CAPACITY



EMPOWERING WOMEN ENSURES THAT THEIR VOICES ARE HEARD IN THE QUEST FOR SAFE, AVAILABLE WATER. THE WATER SUPPLY AND SANITATION POLICY RECOMMENDS THAT ALL STATUTORY BODIES IN THE WATER SECTOR SHOULD COMPRISE A MINIMUM OF 30% WOMEN, AT ALL LEVELS. MORE THAN 26 000 WOMEN AND 13 000 YOUTHS ARE ALREADY INVOLVED IN THIS MANNER.

The historic lack of capacity in the country's water sector is potentially the single most limiting factor to implementing South Africa's new water policies. To ensure sustainability, new water supply and sanitation projects have a budgetary component dedicated to training. Instrumental here is the involvement of community members themselves, including women, in all phases of the projects, from design through to implementation and management.

Sustainable and participatory water resources management can only be achieved in South Africa if human resource capacity is developed not only in national government, but in all relevant organisations and agencies. Investment is being made in capacity-building in marginalised and disadvantaged groups, as well as at a technical level.

## INFORMATION FOR WATER RESOURCES MANAGEMENT



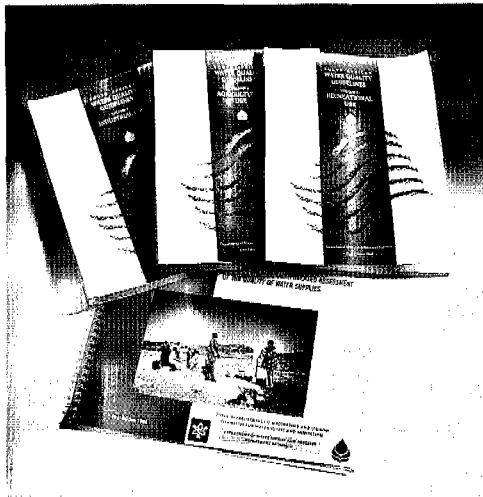
THE PILOT PHASE OF A NATIONAL RIVER HEALTH ASSESSMENT PROGRAMME IS BEING IMPLEMENTED ALL OVER THE COUNTRY RIGHT NOW. CAPACITY BUILDING AND CREATION OF ENVIRONMENTAL AWARENESS ARE INTEGRAL COMPONENTS OF THIS PROGRAMME



Successful implementation of national water and sanitation policies rests on the provision of high-quality information to support sound decision-making.

Information on the status of water resources, factors affecting water resources, and present and future demands on water resources, must be readily available not only to national government and to water management and planning agencies, but also to stakeholders and the public. National government has taken the lead in initiating systems and networks to collect and store data and to facilitate information flow.

National water quality monitoring and flow gauging networks are in place, with a central database housing information dating back several decades. Information to support decision making is readily accessible, and a range of applications for water quality assessment have been developed.



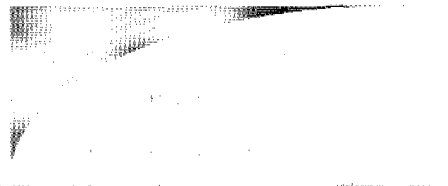
## WATER QUALITY GUIDELINES

*The South African Water Quality Guidelines serve as the national reference tool for assessing the quality of water resources and for setting objectives for receiving water quality.*

*The volumes related to domestic supply, agriculture, recreation and industrial water use were published in their second edition in 1997, and the guidelines for aquatic ecosystems were published in their first edition in 1997. The development of these guidelines arose from a need to have reference tools which were appropriate for South African conditions, not only in terms of climate, hydrology and ecosystems, but also in terms of the urgent need for development in South Africa to meet water and sanitation targets, and to encourage economic growth.*

## INTERNATIONAL PARTNERSHIPS

South Africa and her neighbouring States share a common destiny in the region. South Africa is a signatory to the Southern African Development Community (SADC) Protocol on Shared Water Resources, and to many bi-national and multi-national agreements with neighbouring states. In some cases, there are long-standing partnerships of co-operation and joint projects, such as the Lesotho Highlands Water Project. Along with its SADC partners, South Africa shares a hope for regionalised water resource management and development. The first priority allocation after the Reserve is the water required to meet obligations to neighbouring states in shared river basins.



## THE WAY AHEAD

*To bring new water policy and legislation into effect will require a major programme of work. Specific mechanisms will be required for a smooth transition from the old system to the new. The economic and administrative implications of implementing new water policy and legislation mean that certain elements will be most efficiently implemented through a phased process, according to the social, economic and technical circumstances prevailing in each region or catchment.*

A number of subsidiary policies, which will form building blocks in the overall water resources strategy and management in the country, are currently proposed or are being developed, for example:

- a Water Pricing Policy
- an Irrigation Policy
- a Disaster Management Policy
- a Water Conservation and Demand Management Policy.

Much progress has been made over the past four years. There have been remarkable successes in ensuring that South Africans have equitable access to basic water services that will be self-sustaining. A solid basis has been established from which to guide the allocation and use of water in the national interest.

A new approach to water resource management, one founded on the principles of equity and sustainability, will enable South Africa to achieve its social and economic goals without unnecessary conflict and in a manner which protects our resources for utilisation by future generations. The policy outlined in the White Paper on National Water Policy, and the new legislation arising from it, will provide the national government with the tools required to fulfil its role as custodian of our precious water resources, and to achieve the national goal of ensuring that there will be some water, for all who need it, for ever.

ENQUIRIES AND MORE INFORMATION:

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