

Water Supply and Sanitation Policy

White Paper

Water – an indivisible national asset

PREFACE

This White Paper on ***Water Supply and Sanitation Policy*** is the first in a series of policy papers which my Department will be producing during the next few months. Included in the series will be a White Paper on Forestry Policy and a process to revise and consolidate all water legislation.

This White Paper is written in a provocative style to challenge all who are affected or engaged in water in South Africa to participate in the process of policy formulation. Everyone must contribute to a sustainable policy for water supply and sanitation. The problems of tackling the backlog of the past belong to us all.

When I was appointed Minister of Water Affairs and Forestry in May 1994 I already had an appreciation for the immensity of the task ahead to provide even the minimum basic water and sanitation services to all our people, but the vastness of the task becomes more apparent day by day. I am inundated with appeals. I understand the growing impatience that I encounter but if we do not all gain an understanding of the task and how long it will take, we will land in a quagmire of panic-driven decisions. There are many facets of this problem elucidated in this White Paper but let me emphasise the most important.

Firstly we need to understand that water supply schemes must be properly planned. All options must be considered. The communities served by schemes must take ownership of them and take responsibility for them. Water tariffs must be paid so that there are enough funds for those who have no water supply. We must all play our part.

An equally hard reality is that not everyone's needs can be met at once. There are limits to our resources, both now and in the future. Hence we will have to set priorities which I and my

Department do not intend to do alone. Priorities must be built from ground level and then they must proceed to the Provinces to be assessed on a provincial level. Finally I will have to ensure that there is equity at national level. Priorities must be jointly set and collectively agreed.

I have no intention of assuming the Provinces' and local governments' responsibilities for basic service provision. My Department will only play a supporting role where needed and only for as long as it is needed. This is discussed at length in the White Paper.

I invite all those interested and concerned with water supply and sanitation to study this document and to comment. What emerges from such a debate will be the best we can achieve at the time. As we travel this road as a nation we will have to adjust our policies and procedures. Our vision must remain vibrant and dynamic to meet the needs of our people.

The final chapter on policy on any matter is never written.

This document is dedicated to the millions of our citizens who struggle daily with the burden of not having the most basic of services. The time has come to take your destinies into your own hands with the assurance of support from our new democratic State.

**Prof. Kader Asmal, MP
Minister of Water Affairs and Forestry**

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Section A: Introduction

South Africa is a land of contradictions and extremes. Nowhere is this clearer than in the distribution of basic services. In a country with nuclear power, cellular telephones and vast inter-catchment water transfer schemes, more than 12 million people do not have access to an adequate supply of potable water; nearly 21 million lack basic sanitation. Public action is needed to remedy this unacceptable situation, but it must be action based on a clear policy which is premised on the rights of all people to determine their own future. The goal of Government is thus to ensure that all South Africans have access to essential basic water supply and sanitation services at a cost which is affordable both to the household and to the country as a whole.

WATER AND SANITATION : CENTRAL TO RECONSTRUCTION AND DEVELOPMENT

The Reconstruction and Development Programme (RDP) adopted by the Government of National Unity is more than a list of the services required to improve the quality of life of the majority of South Africans. It is not just a call for South Africans to unite to build a country free of poverty and misery. It is a programme designed to achieve this objective in an integrated and principled manner.

The lack of basic services such as water supply and sanitation is a key symptom of poverty and under-development. The provision of such services must be part of a coherent development strategy if it is to be successful.

The way in which South Africa's limited water resources are used must also be part of such a development strategy. The creative management and use of water will be vital to assure the RDP's objectives of eradicating poverty and promoting sustainable economic and social development.

Water is central to development. A small amount is essential for people's physical survival. Beyond this, a limited amount is needed for basic personal hygiene and household uses. In more affluent communities, water is used as a "luxury", for gardens and swimming pools.

In a similar manner, basic sanitation services are required to ensure personal and public health. Many communities desire and demand the convenience and comfort which higher levels of sanitation service can provide.

The contribution of water and sanitation services to development is of course far wider than their impact on households. Water is a key factor of production in manufacturing industry, power generation, mining and agriculture. It sustains the natural environment which is why it is not only the quantity of water available which is critical but also its quality, its fitness for use. For this reason, both sanitation services and economic activities which can pollute water and render it unfit for use must be controlled.

The limited water resources of South Africa are a national asset which must be properly managed if they are to bring maximum benefit to the country as a whole. As custodian of this precious resource, the Department of Water Affairs and Forestry (DWAF) has the national responsibility of ensuring that both the needs of people and of the economy which sustains them are effectively met.

In this context the provision of water supply and sanitation services cannot be separated from the effective management of water resources for other, economic, purposes. Only by addressing both aspects together, in an integrated manner, can the objectives of the RDP be fully met.

A new Department of Water Affairs and Forestry

Until the new interim Constitution came into effect, South Africa was divided into eleven different "homeland" administrative and political areas - the four nominally independent TBVC states, six "self-governing" territories and the dominant "RSA" territory, governed by the tri-cameral parliament.

The amalgamation of all water and forestry related personnel, functions and budgets of the previous homelands, together with the assumption of new functions of water supply and sanitation, will at least treble the size and budget of the previous "RSA" Department of Water Affairs and Forestry. It is not the intention that the previous central Department assumes the senior role and that all the other personnel and functions fall under its authority. On July 1, 1994 a new Department came into existence by proclamation of the President. Because of the proportions and the substantially different and new functions to be undertaken in order to meet the objectives of the Reconstruction and Development Programme, all the Government staff from all parts of the previous structures will be part of building the

Department into a new organisation. This is not a short process. It is anticipated that a period of eighteen months to two years will be required to form a new Department.

A Strategic Management Team (SMT) has been established to advise the Minister on the process of transformation and on the development of the new Department of Water Affairs and Forestry. This is made up of persons from outside the Department and senior officials. It is the objective not only to develop a new organisational structure but also a new ethos and vision.

In the interim, whilst the process of amalgamation is underway, a new Chief Directorate of Community Water Supply and Sanitation has been established to promote water supply and sanitation provision.

The responsibilities of this Chief Directorate are :

- assuring the effective ongoing operation of potable water supply systems for which DWAF is responsible;
- planning the expansion of services in collaboration with the provincial governments and in keeping with the policies outlined in this White Paper;
- promoting such investments as may be necessary to achieve the expansion of services,
- developing the organisations needed at both local and regional level to achieve the goals of the Government of National Unity as expressed in the Reconstruction and Development Programme;
- monitoring and regulating water supply and sanitation activities in accordance with the Constitution.

SCOPE AND PURPOSE OF THE WHITE PAPER

The objective of this White Paper is to set out the policy for the new Department with specific regard to water supply and sanitation services. It does not address other functions of the Department such as the management of the quantity and quality of water resources except insofar as they are relevant to the main theme.

This is not because the other issues are less important. Further policy statements are in preparation and a major review of the Water Act No. 54 of 1956 is planned. The focus on water supply and sanitation services reflects the current absence of coherent policy in this area and the high priority given to them by the Government of National Unity. This is in turn a response to the need for urgent action expressed repeatedly at local level; after jobs and housing, water supply is the issue which South Africans want to see Government address most urgently.

The absence of clear policy is of particular concern since it is widely agreed that service provision should be implemented at local level wherever possible. For this to occur, a clear framework is needed which enables local level organisations to play their role with full knowledge of what support they can expect from higher levels of Government.

As important, goals need to be set and progress in achieving them needs to be monitored. Only in this way can problems be identified and resolved at an early stage.

The White Paper is divided into five Sections, A to E. The purpose of the White Paper is to:

- Provide some historical background regarding water supply and sanitation development in South Africa;
- Explain the development approach which has guided policy formulation;
- Put forward certain basic policy principles;
- Outline the institutional framework proposed for water supply and sanitation services;
- Provide standards and guidelines for basic service delivery;
- Set out policy for the financing of services;
- Outline certain immediate initiatives which are being taken;
- Provide supplementary policy and briefing information on important related topics.

The document is not intended to present a detailed strategy for achieving the overall goal outlined in the introduction. This will be developed by the new Department once the basic policy has been discussed and accepted although some current initiatives will be outlined.

A further function is to make the issues addressed understandable to as wide a group as possible. While the policy reflected in the document is the result of wide consultation, it is not the last word on the subject. The involvement of all interested parties will be needed if the goals of the policy are to be achieved. Comment on the document is invited from all concerned parties.

Section B: BACKGROUND AND CONTEXT

A QUESTION OF EQUITY

The fundamental issue to be addressed in the water sector is that of equity. The line which divides those with adequate access to water from those without is the same line dividing the rich from the poor, the hungry from the well fed, the line of race and privilege. It is one more example of the inequities in all spheres of our society; in health, education, housing, and land ownership. The goal of the new Department of Water Affairs and Forestry is to end the inequity in access to basic water supply and sanitation services.

To help understand the issues, it is useful to distinguish between two separate but related elements. Firstly, inequity in the allocation of water resources and secondly, inequity in water supply development.

Water resource allocation Existing legislation provides for the allocation of water between different interests and user groups. In many parts of our arid country, much of the available water has already been allocated for someone's use. In principle, water for domestic or "primary" consumption always receives priority. Yet, despite the fact that water for human consumption is but a small proportion of the total available, many communities have totally inadequate access to drinking water; meanwhile farmers use large volumes of water for irrigation and stock farming even in the more arid areas of the country. This is a contradiction which is deeply felt and widely resented.

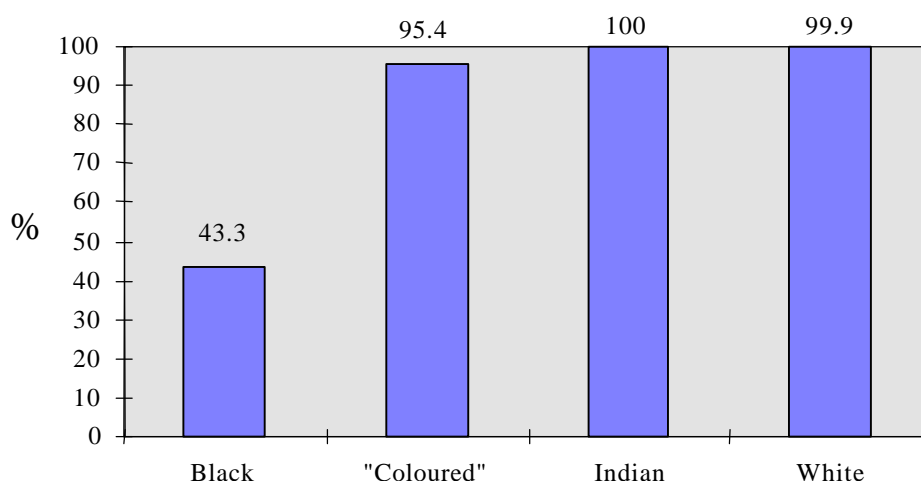


Figure 1 Piped water distribution¹

¹ Source: *Baseline Household Statistics - SALDRU / World Bank Poverty Study, 1994*, based on a survey of approximately 9 000 households throughout South Africa. (Piped water refers to those who have internal household water or yard taps. This is not considered as a basic service as defined in this White Paper, but as a realistic long term goal.)

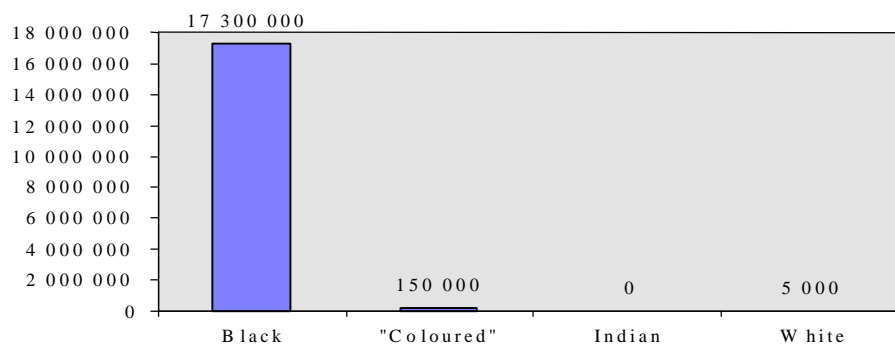


Figure 2 Population without piped water ¹

Water supply development This inequity in access to water has a simple origin. The public funds available for water supply development have been invested mainly to assure that bulk supplies are available to those who can afford to exploit them. This has benefited farmers who can install pumps to take water from rivers to irrigate their fields, and municipalities which build plants to extract and purify water to sell to their citizens. Poor communities, for lack of both funds and organisation, have not been able to take advantage of their "right" to primary water supplies.

THE HISTORY OF WATER DEVELOPMENT IN SOUTH AFRICA

The history of water in South Africa cannot be separated from the history of the country as a whole and all of the many factors which went to create both one of the darkest and one of the most triumphal chapters of human experience. The history of water is a mirror of the history of housing, migration, land, social engineering and development.

One sector of the economy of South Africa has developed from a rudimentary settler level through an agricultural phase plagued by droughts and depressions into that of a sophisticated, mining and industrialised economy using modern techniques in keeping with those of the western world. The other sector of the economy is poverty-bound, its poverty aggravated by the systematic destruction of traditional subsistence economies. This sector enjoys little of the services and advantages of the wealthy sector which was developed largely at the cost of the poor. The development of South Africa's water resources has been linked more with supporting the progress of the country's wealthy sector than with alleviating the position of the poor, particularly in the rural areas.

By the end of the 19th century most of the water used in South Africa was for white commercial agriculture. Water for irrigation was generally diverted directly from rivers, since few dams had been constructed. Legislation enacted in the early years of this century protected the water rights of farmers along rivers and the State concentrated on the construction of works to benefit irrigation.

The great economic depression which commenced in 1929 and the coincident drought gave impetus to the construction of several labour-intensive State schemes on which destitute whites from drought-stricken areas were employed and settled. In the mid-1930's subsidies were introduced to accelerate the development of private irrigation schemes.

Later, the emphasis on irrigation in the legislation proved to be inadequate for the water requirements of an expanding industrial base. Accordingly, in 1956 a new Water Act (Act 54 of 1956) was passed, which was intended to ensure an equitable distribution of water for industrial and other competing users, as well as to authorise strict control over the abstraction, use, supply, distribution and pollution of water, artificial atmospheric precipitation and the treatment and discharge of effluent.

In the years following the Second World War subsidies for municipal water schemes were introduced to improve the standards of supply, although these were subsequently modified to assist only smaller municipalities that would otherwise not have been in a position to carry out works of a satisfactory standard. These subsidies made only a marginal contribution to the total cost of service development. Later, several Government regional water supply schemes were constructed, such as the Orange Free State Goldfields Scheme to promote the exploitation of newly discovered gold. Because of the scarcity of water and the geographical mismatching of demand and supply, a more recent trend has been the construction by the State of large inter-basin transfer schemes, such as the Orange-Fish, Tugela-Vaal, Riviersonderend-Berg River and Usutu-Vaal projects, which involve large and sophisticated engineering works, such as the Lesotho Highlands Project.

With the introduction of Grand Apartheid and the balkanisation of the country into the homeland territories and the tri-cameral parliamentary "own affairs" administrations, it became very clear that virtually all of the vast investments mentioned above served the white sector of South Africa and the rest were left to fare for themselves. The government, using elaborate financial mechanisms, (including the Development Bank of Southern Africa) engaged in some development of water but the investments were very unevenly distributed and totally inadequate. Because of the lack of political legitimacy of the homelands it was impossible to enforce any tariff policy and so the homeland budgets became increasingly absorbed into the payment of operating subsidies. In many rural areas around the country 75% of existing water schemes are out of order. Within white "RSA" the black townships were placed under the authority of the "Black Local Authorities" and also largely left to fend for themselves. Under illegitimate and inefficient management, the meagre services which did exist in the townships could not survive the protracted boycotts which black civil society resorted to as one of the last remaining tools of resistance before the fall of apartheid.

The history of the development of sanitation services closely parallels the history of water service development in South Africa. In the wealthy municipalities and towns the development of water supplies generally made provision for the greater quantities of water required for water borne sewage services. Black local authorities in some areas undertook water borne sewage development but in many places the bucket system is still used today. In rural areas the situation is even worse with very low levels of service provision. The impact that this state of affairs has had on the health of the population and on the environment at large is enormous.

INSTITUTIONAL FRAGMENTATION

The institutional arrangements in the water sector reflect the past policies of "separate development". Water resource management, historically a function of Central Government, was divided between the institutions of the former "homelands". Both the management of water resources and water supply and sanitation services were often hindered by this division. Permanent Water Committees established between South Africa and the "homelands" had to draw up international agreements governing the use of water from rivers which crossed and recrossed their boundaries; water supply pipes were built to serve one community but not their immediate neighbours in an adjacent "state"; separate waste water treatment plants were built almost side by side.

Organisations with some involvement in water resource management or service provision proliferated. They included:

- three houses of the tri-cameral parliament and their "own affairs" Departments;
- ten "homelands" each with their own departments of works, local government, agriculture and water affairs;
- four provincial administrations;
- numerous Regional Services Councils, Joint Services Boards, Joint Co-ordinating Committees and similar structures;
- parastatal bodies including the Development Bank of Southern Africa and the development corporations of the homelands;
- 16 water boards;
- several large metropolitan authorities with large water and waste departments as well as hundreds of smaller local authorities with responsibility for service provision;
- many non-governmental organisations both local and foreign.

This proliferation of institutions has contributed to the problems that the country now faces. But it is not the number of institutions as such which has resulted in today's inadequate service provision but rather:

- the absence of coherent policy;
- the absence of an institutional framework which established clear responsibilities;
- the overlapping of institutional boundaries as well as the exclusion of many areas of great need;
- a lack of political legitimacy and will; and
- critically, the failure to make resources available where they were most needed.

DEVELOPMENT APPROACH

The development approach which guides the policy proposed for water supply and sanitation is derived directly from the principles which underpin the Reconstruction and Development Programme. It is also informed by substantial, sobering, international experience gained during and after the International Drinking Water and Sanitation Decade of the 1980s.

Reconstruction and development

The RDP principle of an integrated and sustainable programme has already been identified as critical to the success of service provision. It is recognised that there is limited value in having a water supply and sanitation strategy which is not part of a comprehensive development strategy.

The need for development to be a people driven process is fundamental. There is wide international experience which confirms the view that the provision of services in poor communities will fail if the people themselves are not directly involved. The involvement and empowerment of people is thus a cornerstone of the approaches proposed. One reflection of this must be the democratisation of the institutions at all levels of the sector since they are often among the first points of contact between communities and the organised State.

Since water in particular can easily become a focus for conflict within and between communities, the development of effective delivery mechanisms must contribute to the RDP principle of achieving peace and security for all. Related to this, the very establishment of the goal of assuring that all South Africans have access to the basic services needed to ensure their health is a contribution to the process of nation-building.

Finally, the link between reconstruction and development remains a guiding concept. The RDP identifies the provision of infrastructure for services such as water supply and sanitation as one of the key elements of its strategy for developing the South African economy along its new path. The way in which services are provided must ensure that they do not simply satisfy peoples' basic needs but also contribute to the growth of a dynamic economy, which is increasingly able to provide all South Africans with opportunities for a better life.

Water supply and sanitation should be integrated into programmes for the provision of other basic needs. The co-ordination of the various public organisations involved in the planning and delivery of basic services is therefore essential. It is necessary to consider at least four mutually related factors required for development:

- physical infrastructure such as water supply, sanitation, roads, electricity and communications.
- social infrastructure including schools, hospitals, clinics and welfare organisations.
- economic infrastructure which is the employment, production and trading base including access to markets and finance.
- institutional infrastructure being organisational and civil administration structures at all levels. These should provide access to ordinary people to the processes of democratic local, regional and national government.

International experience

South Africa can benefit from many lessons learned internationally in the field of community water supply and sanitation services which has been a matter for growing world concern since the 1960s.

In the belief that access to adequate supplies of clean water and adequate sanitation is important not just for public health but also for overall prosperity, the UN General Assembly proclaimed the period from 1981 to 1990 as the "International Drinking Water and Sanitation Decade". The intention of the Decade was to promote the well-being of mankind world-wide by bringing about a substantial improvement in the level of services for the poor.

The aim of encouraging the provision of at least minimal services to everyone throughout the world within a decade proved to be over-ambitious. The rate of progress fell far short of that hoped for with population growth outstripping progress in many countries. As a result, the goal of universal coverage remained a distant vision. A year before the Decade ended, four out of ten people still lacked basic services.

The Decade did however succeed in focusing attention on core problems. Economic pressures imposed tight constraints on investments in water supply and sanitation, especially in developing countries with flagging economies and high debts. It became clear that governments and donors could provide only a fraction of the resources needed and that communities themselves would have to carry much of the cost of service provision.

Similarly, investment itself was only the start of the process. Many new water systems soon failed because of inadequate maintenance and ineffective management. The need to empower communities to take responsibility for their own service provision was a lesson learnt from harsh experience.

The initiative and impetus launched by the Decade has nevertheless continued. Valuable experience in approaches to attain sustainable development has been gained, much of it systematised in the proceedings of several world conferences, notably Abidjan 1990, New Delhi 1990, and Dublin 1992.²

The troubled experiences of other countries, especially in Africa and Latin America, need to be heeded and sound development principles applied if South Africa is to be more successful than they have been in achieving equitable access to sustainable basic infrastructure for all its people.

At the Abidjan conference, it was agreed that for sustainable progress, particularly in rural development projects, there was a need for:

- involvement of communities in the planning, design, financing, construction and maintenance of improved water supplies, with women's groups taking the leading role;
- use of public and private sector resources to provide initial training and long-term support, so as to create an environment in which community management can function successfully; and
- choice of affordable, sustainable technology.

Until recently, cost recovery policies in the water supply sector world-wide were dominated by a view that is now recognised as outdated. The thrust of the programmes was based on the premise that neither rural nor peri-urban communities could afford to pay for services.

An insistence that disadvantaged people should pay for improved water services may seem harsh but the evidence indicates that the worst possible approach is to regard poor people as having no resources. This leads to people being treated as the objects rather than as the subjects of development; it generates proposals for unaffordable subsidies which tend to reach only those with influence, leaving the situation of the majority unchanged. Promises of free services for all have, in practice, usually resulted in some service for a few and little or none for most. A key element influencing a household's willingness to pay for an improved water supply is the households' sense of entitlement to Government services and their attitude toward Government policy regarding water supply and sanitation. In general, communities are reluctant to involve themselves in countries where the perception prevails that it is the Government's responsibility to provide services.

Other international experience suggests the primary role of central Government agencies and donors must not be that of direct providers and financiers of services. Rather than operate and maintain water supply systems directly, central Government and external agencies should create an environment within which locally based organisations can plan, construct, and manage their own services. These can include both local government institutions as well as specialised utilities operating on a commercial but accountable basis.

Aside from the establishment of a policy framework and the setting and monitoring of policy goals, central Government agencies still have vital supportive functions to perform in the areas of training, information dissemination, and technical and managerial assistance. In addition, they continue to have an important role in the targeted allocation of finance to achieve public goals.

NO EASY ROAD

The achievement of the Constitutional goal that all South Africans have the right to a healthy environment will be no easy task. The continent of Africa and the rest of the developing world is littered with failed good intentions implemented by highly qualified engineers, economists and development "specialists". South Africa can only avoid travelling the same road if programmes are guided by the considerations outlined above.

Both the principles of the Reconstruction and Development Programme and international experience emphasise that success depends on the adoption of the policies and practices which enable people to take their own development destinies in their own hands.

² Abidjan, 1990 "African Conference Statement: Abidjan Accord"; Abidjan, Côte d'Ivoire; May 10-11, 1990

New Delhi, 1990 "Global Consultation on Safe Water and Sanitation for the 1990s"; New Delhi; 1990

Dublin, 1992 "International Conference on Water and the Environment: Development issues for the 21st century"; Dublin; 26-31 January 1992

It is the intention of this Government to create the enabling environment necessary to ensure that all South Africans have access to acceptable levels of water supply and sanitation.

SECTION C: WATER SUPPLY AND SANITATION POLICY

POLICY PRINCIPLES

Based on local and international experience, and on the premises of the Reconstruction and Development Programme, the following principles are adopted as the basis for the policy which follows. These principles assume a context of universal human rights and the equality of all persons regardless of race, gender, creed or culture.

Policy principles:

1. **Development should be demand driven and community based.** Decision making and control will be devolved as far as possible to accountable local structures. There is a reciprocal obligation on communities to accept responsibility for their own development and governance, with the assistance of the State.
2. **Basic services are a human right.** This will be interpreted, in terms of the Constitution, as a right to a level of services adequate to provide a healthy environment. They do not imply the right of an individual person or community to demand services at the expense of others.
3. **“Some for All”, rather than “All for Some”.** To give expression to the constitutional requirements, priority in planning and allocation of public funds will be given to those who are presently inadequately served.
4. **Equitable regional allocation of development resources.** The limited national resources available to support the provision of basic services should be equitably distributed among regions, taking account of population and level of development.
5. **Water has economic value.** The way in which water and sanitation services are provided must reflect the growing scarcity of good quality water in South Africa in a manner which reflects their value and does not undermine long term sustainability and economic growth.
6. **The user pays.** This is a central principle to ensure sustainable and equitable development, as well as efficient and effective management.
7. **Integrated development.** Water and sanitation development are not possible in isolation from development in other sectors. Co-ordination is necessary with all tiers of government and other involved parties and maximum direct and indirect benefit must be derived from development in, for instance, education and training, job creation and the promotion of local democracy.
8. **Environmental integrity.** It is necessary to ensure that the environment is considered and protected in all development activities.

It must be noted that principle 1 may appear to contradict principles 2 and 3 in that the first implies a demand driven development philosophy whereas the second and third imply a supply driven, centralised approach. **The primary principle is that development should be demand driven.** The second two principles will determine how the State prioritises its response to community demand.

“Demand” in this context should be clearly understood as the motivation for development originating from within the community, not from some outside agency (including the State) on behalf of the community. “Demand driven development” does not mean that the community simply “demands” services from the Government. This ultimately leads to the community having no control over its own future and becoming disempowered.

INSTITUTIONAL FRAMEWORK

Institutional goals

South Africa's entire framework of government is undergoing massive transformation at central, provincial and local level. In this process, it is essential to ensure that existing institutional capability for

water supply and sanitation provision is maintained in the short term. It is equally important, if the objectives of Reconstruction and Development are to be met, that the foundations of a sound institutional structure are laid for the long term, consistent with the provisions of the Constitution and the principles outlined above.

The policy of the Department of Water Affairs and Forestry is to ensure that all communities in the country have access to basic services and to the support that they need to achieve them. This does not imply that the provision of these is necessarily the direct responsibility of the Department. What is required is a framework within which responsibilities and lines of support for water supply and sanitation activities are clear. This institutional framework will necessarily involve a range of other agencies, notably provincial and local governments as well as other interested parties such as the private sector and non-governmental organisations. The Department of Water Affairs and Forestry will support the work of the other agencies; as important, it will assume the responsibility to fill the gaps in the interim.

In this context, the institutional goals of the Government with regard to water supply and sanitation services can be stated as follows:

In the long term, the goal is that the provision of services to consumers should be the function of competent, democratic local government supported by provincial governments. Where necessary and appropriate second tier institutions (such as Water Boards) will provide bulk or regional water supplies or wastewater disposal services to local authorities under the supervision of the Central Department of Water Affairs and Forestry. This Department will be responsible for water resource management, for monitoring and regulating functions and specifically to ensure that an enabling environment for community based water supply and sanitation development is maintained. Public agencies should be served by a strong private and NGO sector.

In the medium term, the objective of Government is to support institutional development at local level as well as to provide financial and technical assistance for the physical development of water supply and sanitation services. This will be achieved through the restructured Department of Water Affairs and Forestry at regional level and through second tier water institutions such as the Water Boards, with the full involvement of the private and NGO sectors.

In the short term, the immediate goal is to maintain service delivery, to rationalise the central Government Department and ensure the smooth integration of all the previous homeland staff, functions and budgets into a new national Department with appropriate regional structures; to transform and democratise the Water Boards and to "gear up" to achieve medium term goals.

The following section details the roles of each of the different levels of government and other agencies within the broad institutional framework described above.

The role of Central Government

The role of the Central Government in the water sector can be divided into two distinct areas:

- **Managing the nation's water resources in the public interest and,**
- **Ensuring that all citizens have access to adequate water and sanitation services.**

The structure of Central Government and its agencies must reflect these separate but related functions.

Thus the task of water resource management has to be carried out directly by a central agency. This is because naturally occurring water can only effectively be managed within a river basin or catchment area. Since in many cases provincial and other political boundaries divide catchment basins, and because water is a strategic national resource, water resource management is defined as a national function in the interim Constitution.

For the provision of water and sanitation services, Central Government has a less direct role. It must be able to comply with the constitutional obligation to ensure that every South African has "an environment which is not detrimental to his or her health or well-being" and the equality provision in the Constitution. This requires the capacity to establish national policy guidelines, a national water and sanitation development strategy, the formulation of criteria for State subsidies, the setting of minimum services standards as well as monitoring and regulating service provision.

This onus on Central Government applies even in the case of Schedule 6 functions which are a provincial competence since, in terms of the interim Constitution:

"Where it is necessary for the maintenance of essential national standards, for the establishment of minimum standards required for the rendering of services ... the Constitution shall empower the national Government to intervene through legislation or such other steps as may be defined in the Constitution."

The distinction between the functions and responsibilities of the Central Government and the Provincial Governments need to be clearly defined, particularly where they inter-link. The Water Boards form such a link between the Central Government and Local Government through their engagement in the provision of bulk services where there is an advantage to be gained from regional management.. Water Boards are agents of the Department of Water Affairs and Forestry, established under the Water Act. The main reasons why they are under the authority of the Central Government are because their areas of operation often cover more than one Province, and because they undertake important resource management functions on behalf of the Department of Water Affairs and Forestry.

The role of Provincial Governments

Water and the management and development of water resources fall outside the functional areas specified in Schedule 6 of the Constitution of South Africa Act 1993, which sets out the legislative competence of provinces. In terms of Section 126(1) of the Act they are thus the responsibility of the National Government. However the same section of the Act does make the Provinces responsible for local government matters. Since local government is charged with the responsibility to:

"... make provision for access by all persons residing within its area of jurisdiction to water, sanitation [and other services]... providing that such services and amenities are rendered in an environmentally sustainable manner and are financially and physically practicable",

Provincial Governments clearly share the responsibility for assuring service provision, specifically through the promotion of effective local government.

In this context, the need for close collaboration between provincial and central agencies is clear. While Central Government may be responsible for assuring essential functions where local structures are unable to do so, this has to be done in such a way as to support the development of local government to proceed with its own affairs under provincial supervision.

It is of utmost importance that the closest co-operation be maintained between the Department and the Provinces given their joint interest in the development of the capacity of local government to provide water and sanitation services on an equitable and efficient basis.

To ensure effective formal communication and liaison between the Department and the Provinces, Provincial Water Liaison Committees have been established. These are formal statutory bodies established under existing legislation. The functions of the Provincial Water Liaison Committees include liaison with the Department, the identification of priorities and critical areas of need, and advising on the implementation of the Reconstruction and Development Programme as it relates to water supply and sanitation.

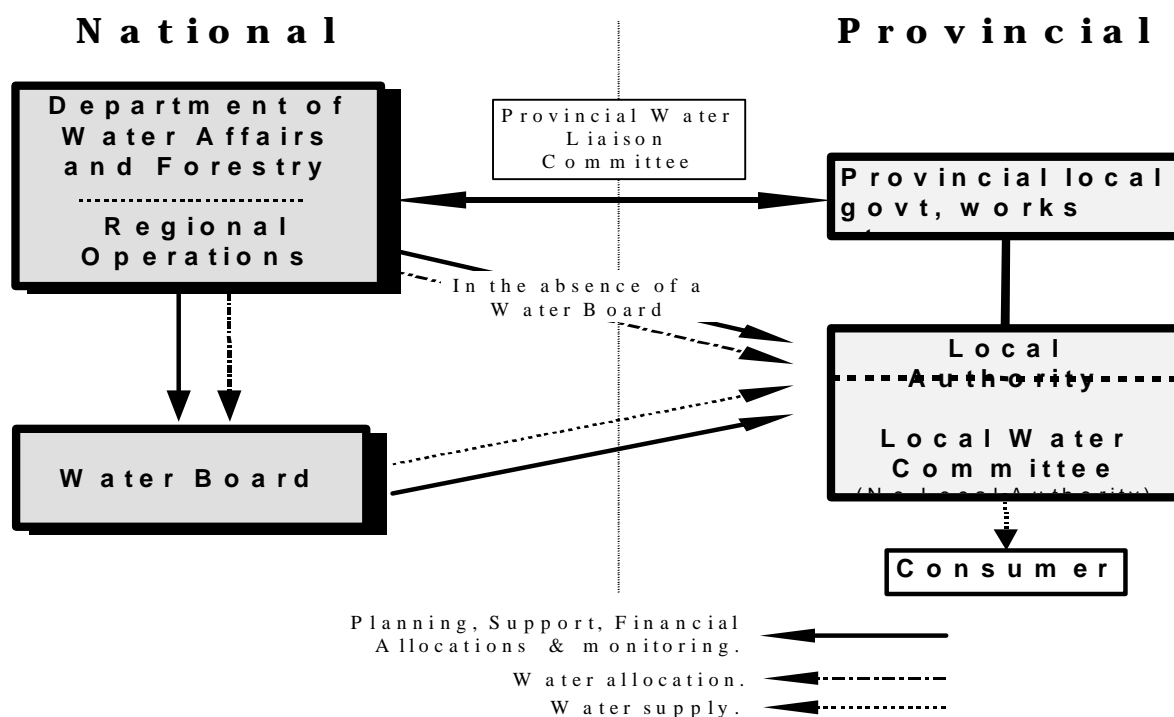


Figure 3 Central Government and Provincial responsibilities

The role of Local Government

The responsibilities of local government are clearly stated in the extract from the Constitution cited above. As emphasised throughout this White Paper, the key to sustainable water and sanitation development is the existence of functional, competent local government.

The dilemma facing the Department of Water Affairs and Forestry is that it is unlikely that effective local government will be established in all areas for some time. The moral and political demand for water however requires immediate action of the Department. It is for this reason that the Department has tabled legislation which enables it to intervene on two fronts.

- First, the mandate of the Water Boards will be expanded so that they can provide water supply and sanitation services to the final consumer.
- Secondly, the Minister of Water Affairs and Forestry will be empowered to establish statutory Local Water Committees (LWCs) to undertake the task of local water and sanitation service provision.

The detailed implications of these initiatives are outlined below. In the present context, it is simply necessary to emphasise that these provisions are made in order to enable the Department of Water Affairs to support the development of local government and not to usurp its functions.

The role of the National Water Advisory Council

The Minister of Water Affairs and Forestry is establishing a National Water Advisory Council in order to ensure that a wide cross-section of South African society, representing all water users, have the opportunity to comment and advise on all aspects of water in the country.

In respect of the specific issues surrounding water supply and sanitation, the National Advisory Council will play an important role in advising on priorities, monitoring progress and ensuring that equity is achieved. The Council will have, as part of its membership, people who both come from communities which are unserved and who understand the difficulties of sustainable development in our particular South African circumstances.

The role of the Private Sector

In order to achieve the objectives of the Reconstruction and Development Programme and implement the policy set out in this White Paper, all sectors of South African society will have to be involved in partnership with the government, particularly those where the resources and skills of the country have been vested in the past. The private sector represents a vast resource which must be harnessed to contribute to the implementation of this policy in a variety of areas including:

- capital investment
- operation and maintenance
- training and capacity building
- organisation development
- financing and commercial services

Capital Investment The area of capital investment is that in which the private sector has historically played the largest role. As designers of systems, contractors and suppliers of goods and services, the private sector has enjoyed hundreds of millions of rands worth of business in service provision in poor communities.

Unfortunately, because of the framework within which projects were implemented, many projects in poor communities which were viewed as relatively rudimentary have often experienced failure rates which would be considered as totally unacceptable in a more "conventional" sector.

There is a need to evaluate the reasons for poor performance and to propose steps to remedy them. In this context, while the development of innovative proprietary products is welcomed where these are cost effective and meet community needs, it is often the case that management and skills are what is required rather than new products. Developers are advised to prove their products in realistic field situations before attempting to market them more widely.

Operation and maintenance There is great interest internationally in the involvement of the private sector in service provision. Such involvement may range from simple short term plant management contracts, paid on a "cost plus" basis, to the complete privatisation of full water supply and sanitation systems in which the concession holder owns the infrastructure and is responsible for financing its expansion.

Full scale privatisation is not presently considered to be an option in those areas of South Africa for which the Department has responsibility. However, a number of "delegated management" contracts are already in operation and others are being discussed.

The Department will consider proposals for the private sector to provide services where these may be in the public interest and where this approach is supported by the community concerned. Given the challenges facing the sector in the development of financially self-sufficient, consumer orientated services, there would appear to be particular opportunities for innovative partnerships in these areas.

In no case will contracts which undermine the functions or authority of any tier of the legitimate government be supported. A commitment to the building of local administrative, technical and managerial capacity will be a major criterion in assessing such proposals as will the views of organised labour. Given the growth of the private sector in this area, the Department will develop a more detailed policy both for its own use as a contractor and regulator and in order to fulfil its role as adviser to other agencies.

Training and capacity building and organisation development The growth of activities in this area will provide opportunities for private sector involvement. Some of these are discussed in the section on training, below.

Financing and commercial services The use of market finance to complement government grants and user charges in the provision of services is well established. Specific requirements in this area are currently being discussed with major lenders and are referred to in the finance section.

The role of the professions One of the most important reservoirs of skill in South Africa are the professionals working in the private sector. Private sector professionals will have to continue to adapt their skills and their orientation to engage in the type of development now required. The main incentive for them to do this is that new approaches will be needed by future spending programmes in the sector.

Among the requirements will be a change in the world view of the people and organisations concerned. In terms of the RDP, it is Government's intention to put the community first, to ensure transfer of control to the local level, to make the community the client. Engineers and other professions will thus have to adapt to serving non-expert clients. Firms which wish to participate in programmes of service delivery are unlikely to succeed if they approach communities with a paternalistic or "upliftment" paradigm.

In the past the Government has made use of panels of consultant registers from which to draw expertise to undertake project work. This method has merit since clear criteria can be laid down against which prospective consultants can be accredited for different types of work on the basis of both qualifications and past experience. A new register is currently being compiled which will take account of both the new skills required (such as social science and community organising abilities) and the new scope of work to be undertaken by the Department and its related agencies.

The role of Non-Governmental Organisations (NGOs)

NGOs have played an important role in South Africa over many years under difficult, and at times, dangerous conditions. Much of their work was in fact lobbying and fighting for the rights of the oppressed, part of the struggle against the powers of the State. This has produced a cadre of leaders with a critical approach to society as well as organisations with proven capacity to innovate and work effectively at community level.

What many NGOs have been working for over the years is now incorporated in the vision of the Reconstruction and Development Programme of the Government. Much of the RDP was drafted from inputs from NGOs. It is now possible for the Government at various levels and NGOs to work together in a way which was not possible in the past. The Department of Water Affairs and Forestry is committed to working with NGOs.

The role of NGOs will be determined by the communities in which they work. The principle of making the community the client will apply to NGOs as well as to the private "for profit" sector.

The role of International Co-operation

The Department of Water Affairs and Forestry welcomes international co-operation and assistance to meet its development objectives. There are a number of areas of possible engagement.

Sharing of experience and knowledge Neighbouring countries, and many other countries around the world, have been engaged in the provision of basic water supply and sanitation services to their citizens for many years. We have a great deal to learn from them and to share with them.

Many of our neighbours face similar problems to us in regard to climate, available water sources, community organisation, local government and scarce financial resources. With South Africa's recent political settlement there is increased scope for a range of inter-action including :

- Policy development,
- The exchange of experience, skills and expertise,
- Technology exchange,
- Information,
- Training materials and resources,
- Research,
- and many other possibilities.

It is not only in Southern Africa where interaction will be sought. A great deal of experience, both good and bad, exists in Latin America and South-East Asia, and in the industrialised nations. Interaction has already occurred with a number of international agencies, including the United Nations, and discussions are proceeding to establish co-operative initiatives. The building of solidarity amongst Southern development orientated countries (as opposed to Northern

“developed” countries) is also an important strategy to assist in our own development in South Africa.

Aid and development finance The Department welcomes co-operation with foreign agencies. There are very limited opportunities for financing arrangements other than grant financing in the arena of basic service development because such development is by definition in poorer communities who require assistance in order to provide services, making it very difficult to repay loan finance. A number of discussions are currently being held regarding grant and technical assistance with a range of agencies from a number of different countries.

Foreign engineering firms and suppliers of equipment There are an increasing number of foreign engineering firms and suppliers of equipment seeking to do business in South Africa. The engagement of foreign firms is welcomed by the Department. The following points are made in order to provide guidance:

- Foreign companies should encourage the growth and development potential of existing South African firms, especially new and emerging black owned and led firms.
- Foreign companies should seek to operate within the ethos of the policy of the Government and the Reconstruction and Development Programme, and the standards as laid down by national and local authorities.
- Projects should be undertaken within the context of the development planning of the Department, the Provincial authorities and local government in any given area and projects should be approved by these authorities.
- Local communities and local authorities should not find that they lose control of their development processes.
- Particular care should be taken to ensure that projects are sustainable when the foreign involvement comes to an end.
- The granting and acceptance of all foreign loans must fall within the requirements laid down by Cabinet.
- Local skills and capacity should be built in the course of projects and skills should be transferred.
- Agreements should not lead to the use of equipment manufactured in foreign countries which is not appropriate to the South African situation, which is not acceptable to the local community or which does not meet the standards or specifications of the Department or local authority.

BASIC SERVICE PROVISION POLICY

The policy of the Department of Water Affairs and Forestry, in full support of the objectives and targets of the Government's Reconstruction and Development Programme, is to ensure that all South Africans can have access to basic water supply and sanitation services within seven years or less. The following section of the White Paper provides basic guidelines for the provision of services and for capacity building and training.

The setting of guidelines and standards must be approached with caution. Guidelines are intended to assist decision making whilst standards are enforceable absolute limits. The rigid application of guidelines or inappropriate standards can have the opposite effect to that intended. An example would be the closure of "sub-standard" water supplies which forced communities to revert to sources of even worse quality.

Given that they are chosen to be the minimum needed to ensure health, the levels of service presented below should be seen as minimum standards to be applied in publicly funded schemes unless a relaxation has been specifically approved.

This does not mean that higher standards cannot be applied. However, there is a direct correlation between the standard of service and the cost, both in terms of initial capital and operation and maintenance. Where higher standards of service are to be provided, the costs will not normally be supported by the programmes of the Department.

Details of the relevant financial policies and tariff arrangements are provided below.

Water supply

Basic water supply is defined as:

Quantity: 25 litres per person per day. This is considered to be the minimum required for direct consumption, for the preparation of food and for personal hygiene. It is not considered to be adequate for a full, healthy and productive life which is why it is considered as a minimum.

Cartage: The maximum distance which a person should have to cart water to their dwelling is 200 m. In steep terrain this distance may have to be reduced to take account of the extra effort required to cart water up steep slopes.

Availability: The flow rate of water from the outlet should not be less than 10 litres a minute and the water should be available on a regular, daily basis.

Assurance of supply: The supply should provide water security for the community. Two factors are important here.
First, schemes for domestic water supply should ensure the availability of "raw" water for 98% of the time. This means that the service should not fail due to drought more than one year in fifty, on average.
Second, the operation and maintenance of the system must be effective. The aim should be to have no more than one week's interruption in supply per year.

Quality: Once the minimum quantity of water is available, its health-related quality is as important in achieving the goal of a water supply adequate for health. The quality of water provided as a basic service should be in accordance with currently accepted minimum standards with respect to health related chemical and microbial contaminants. It should also be acceptable to consumers in terms of its potability (taste, odour and appearance).

Upgradability The desire of many communities to upgrade a basic service to provide for household connections should be taken into account during planning. If this is not done the system could either fail due to illegal connections or have to be expensively upgraded when there is a demand for house connections. Any additional infrastructure required to provide upgraded services will not be considered as part of the basic needs infrastructure.

Sanitation

Policy and practice regarding sanitation provision is relatively undeveloped. Because of the strong linkage between sanitation services and public health, the health sector must play a significant role in all aspects of sanitation policy creation, planning, implementation, and monitoring. Details of this remain to be established. In the interim, the following guidelines will be followed by the Department.

Adequate sanitation: The immediate priority is to provide sanitation services to all which meet basic health and functional requirements including the protection of the quality of both surface and underground water. Higher levels of service will only be achievable if incomes in poor communities rise substantially. Conventional waterborne sanitation is in most cases not a realistic, viable and achievable minimum service standard in the short term due to its cost. The Ventilated Improved Pit toilet (VIP), if constructed to agreed standards and maintained properly, provides an appropriate and adequate basic level of sanitation service. Adequate basic provision is therefore defined as one well-constructed VIP toilet (in various forms, to agreed standards) per household.

Bucket systems of sanitation are not considered as adequate from either a health perspective or in terms of community acceptability. They should be phased out over a period of five years throughout the country.

"Intermediate" sanitation systems: Innovative and proprietary systems will be tested against performance criteria and measured in terms of operations requirements, value-for-money and customer satisfaction.

Local responsibility Responsibility for the implementation and management of sanitation services lies with the local authority. Second tier agencies and the Department will only take action where local government does not exist and such action will be aimed at ensuring that the local capacity to provide adequate services is established as soon as possible, enabling the speedy withdrawal of higher level authorities. Where local authorities do not exist the Department will use Local Water Committees as the vehicle for sanitation development.

Household and individual responsibility Sanitation is a very private matter. Unless the individual and the household are committed to the success of a health and sanitation programme, little will be achieved. Communities seeking public subsidies for the capital costs of household sanitation need to demonstrate widespread individual household support which will have to include a contribution to the cost of service provision.

Labour based approach Sanitation improvement programmes, especially those promoting on-site systems, have considerable job creation potential through the use of local materials, products, suppliers, and contractors, and the use of labour-intensive techniques. Such programmes will be supported by the Department in conjunction with the National Public Works Programme.

Capacity building, education and training The national responsibility to support regional and local efforts requires the development and dissemination of appropriate programmes for promotion, training, and health and hygiene education. This is an issue where the linkage with the health sector is particularly important. Second tier agencies will be required to help build capacity and train personnel at the local level and to provide support until such capacity has been established.

Housing policy Since sanitation is provided at household level, consistency with urban and rural housing policy is essential, both to ensure consensus on standards and strategies and to avoid double subsidies.

Environmental policy Sanitation systems must be environmentally sound. Both on-site sanitation and waterborne systems can create environmental problems. The impact of different sanitation options must be weighed against the impact of unimproved sanitation practices. The risk of groundwater and surface water pollution must be assessed and options considered which include the costs of alternative water sources or water treatment versus alternative methods of sanitation provision.

Training and capacity building

Training is one of the factors which will determine whether or not the objectives of the Government of National Unity will succeed in the implementation of the Reconstruction and Development Programme. This is particularly the case in the water and sanitation sector. The enormous backlog of basic water and sanitation services to local communities will not be reduced unless the communities themselves are empowered to undertake their own development. This is not possible if they do not have the skills required which they can only acquire through training and experience.

Although training is not cheap, the costs of project failure are far greater. Because of the long lead times in establishing training resources and in training suitable trainers, it is imperative that the issue receives a high and early priority. The Department of Water Affairs and Forestry has therefore embarked on a programme of action which commenced with the holding of a national workshop on training and capacity building in October 1994. In the near future a national water supply and sanitation training strategy will be published.

Training of engineers, technologists, technicians, social scientists and other skilled persons will need to be increased if there are to be sufficient such persons to meet future needs. Particular attention needs to be given to ensuring that training is goal orientated to meet new demands. Greater numbers of technologists and technicians are required in proportion to the number of degreed engineers. There is a need to develop new courses to train people as general development practitioners with an understanding of both the social dynamics of development as well as specific technical skills. Specific attention will be given by the Government to ensure that race and gender issues are addressed in respect of training to more truly reflect the proportions reflected in our society at large.

Scale An estimated 12 000 to 15 000 communities do not have adequate water and sanitation services. They also largely do not have the local government skills and structures to undertake service development, operation and maintenance. To build the capacity of such a vast number of communities and to provide trained support staff over a seven year period is a national undertaking of vast proportions. It will require the commitment of many sectors of society and the allocation of substantial resources.

Categories of training required Training and capacity building is not only required at community level. Skilled personnel are needed across a broad spectrum. The training categories include:

- General community awareness on water and sanitation, and related issues, including providing information packs and teaching aids to schools;
- Training of Local Authorities and Local Water Committees in the principles of democratic governance and public office, a basic understanding of water and public health, administrative skills and necessary technical skills;
- Training of community support personnel. Creative solutions are required to produce a cadre of development support workers who are equipped with a balanced set of both community organisation skills and appropriate technical skills;
- Training of specialised watercare technicians (plant operators etc.) The Department of Water Affairs and Forestry and the water sector have already made significant progress towards ensuring that there are sufficient adequately trained watercare staff to meet the increasing demands;
- Training of professional and managerial staff.

The establishment of a National Community Water and Sanitation Training Institute The Minister has specified that a National Community Water and Sanitation Training Institute is to be established at the University of the North with the support of the Water Research Commission. It is proposed that the Institute will build a national centre of expertise and research to address such issues as adult training and education methodology, assessment of the impact of education and training programmes, community training requirements, and training content. The Institute will also be a centre for the training of trainers and will seek to co-operate with other universities, particularly those which have historically been disadvantaged, to develop a network of training centres around the country. The Institute will also seek to work closely with the existing initiatives in other sectors of adult education and will seek contacts and interchange with similar training institutions in southern Africa and elsewhere.

FINANCE AND TARIFF POLICY

There are limited public funds available for water supply and sanitation and the policy of Government is to use these as far as possible to achieve the goal of ensuring that all South Africans have access to at least basic levels of service. The question of who pays, how much, for what and how is one of the most contentious policy issues of all.

A key principle of the Reconstruction and Development Programme is that services should be provided and paid for in a manner which does not require ongoing Government funds to keep them running. To achieve this it is necessary to review both the cost of providing services and the way in which these are paid for.

Water is a natural resource - considered by many to be a "gift from God" - which as such should be free. The **cost** of water arises from the need to abstract it from a source, treat it and bring it to where it is required. This cost of water (or a sanitation system) is made up of three basic components:

- Capital costs: the money required to build the water scheme. These costs vary depending on the nature of the scheme. They may include the costs of storage facilities such as dams and reservoirs, water treatment plants, pump stations, main pipe lines, reticulation, bore hole drilling and equipping, or simple spring protection.
- Operation and maintenance costs: the costs of keeping the services running. Also known as "recurrent costs", these include the costs of maintenance and operating staff, fuel or electricity for pumps, replacement of broken pipes and fittings, the costs of chemicals for treating the water etc.
- Replacement costs: the money required to replace an engine or a pipeline when it reaches the end of its useful life.

Financial policy

Financing, the question of how to pay for the construction, running, maintenance and replacement of services, is a complex issue. Simply put, however, sources of finance include:

- Consumers, through their cash contributions and tariff payments;
- Government, at all levels, which can give grants from money it raises from taxes and other sources;
- Loans, which can be obtained from the "money market", although a Government agency may be needed to assist small communities and organisations to obtain such funds;

- Donations and cheap or concessional loans may be available from local or foreign sources for some projects;
- Privatisation which can raise funds for service provision in a number of ways.

The basic policy of Government is that services should be self-financing at a local and regional level. The only exception to this is that, where poor communities are not able to afford basic services, Government may subsidise the cost of construction of basic minimum services but not the operating, maintenance or replacement costs.

This will require a substantial revision of present policy since Government grants or "subsidies" have been given in the water sector for many years. These have generally been targeted at specific sectors of the population to promote policy objectives such as agricultural production in the commercial sector and the stabilisation of the "separate development" homeland structures. In addition, specific water supply and sanitation subsidies to small local authorities and to "water-poor" areas have in the past been used for the benefit of only a limited section of the population.

Details of the new Government subsidy scheme for the provision of basic water and sanitation services have not been finalised. The following points provide the basic policy framework:

1. Government subsidies will be made available to communities which can not otherwise afford minimum water supply and sanitation services.
2. Subsidies will only be available to cover the cost of minimum services provision and will not cover operating and maintenance costs.
3. Other subsidies provided by the Department of Water Affairs and Forestry for water supply and sanitation provision will be phased out, particularly in respect to operation and maintenance costs, except in cases where subsidies are required in the public interest such as for the protection of the environment.
4. Subsidies will normally be paid to local authorities or statutory Local Water Committees, rather than direct to a service provider.
5. The amounts of subsidies will be determined locally by the actual cost of providing basic services.

In order to establish the financial implications of this policy, a national water supply and sanitation development strategy will be completed in the near future which will provide greater detail of the extent of a national programme in terms both of numbers of households to be served and the cost of supporting such service provision.

The implementation of such a strategy in terms of the policies presented in this White Paper will depend upon resources being available for the purpose. These are not available from the budget of the existing Department which has been seriously eroded over the past ten years (refer to the Figure) and special provisions will have to be made to achieve critical goal of the Reconstruction and Development Programme to ensure that all citizens have access to basic services. Excluding the possible savings for the Government through the phasing out of operating and maintenance subsidies, and assuming that a substantial proportion of basic services in urban areas will be funded by housing subsidies, in order to achieve the goal of ensuring that the majority of citizens do have at least basic services within seven years, the annual budget of the new amalgamated Department will need to increase from an estimated R1,6 billion per annum (1,28% of the total budget) to approximately R2,8 billion (2,24%). [1994 prices]

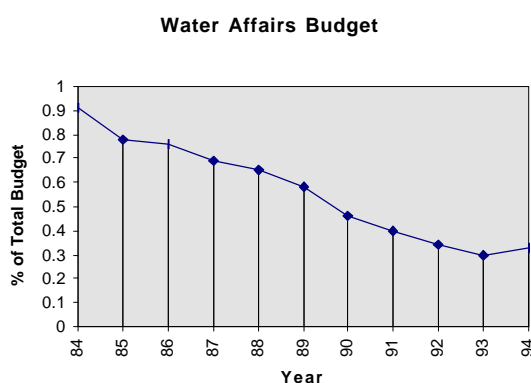


Figure 4 DWAF budget decrease as % of total budget

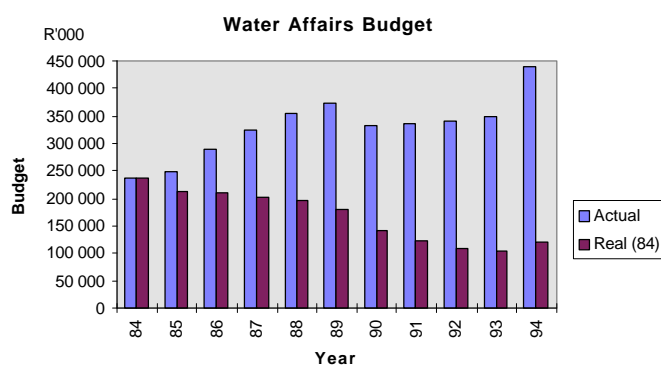


Figure 5 DWAF Budget decrease in real terms over 10 years

An additional 1% of the national budget over seven years would meet the goal of providing universal basic water supply and sanitation services to all citizens.

Urban service financing. In urban areas, the cost of internal services and reticulation within a township's boundaries are generally considered to be part of the development costs of the property. There are however the additional costs of connector, bulk and treatment services of both water and sanitation. These costs are not considered as part of the internal services and are therefore not covered by the housing subsidy.

A key concern of the water sector is to ensure that provision is made for these costs. The experience of some Latin American cities needs to be avoided where the service to otherwise successful housing developments have collapsed. This will be particularly important as the role of the Water Boards is expanded and their ability to provide implicit subsidies to urban areas is reduced. This is an instance where, although such issues are essentially the concerns of local authorities, the Government and Water Boards, who are bulk suppliers, will have to be involved in addressing the problem.

Services in economically viable urban areas must be managed in a financially viable and sustainable way, whilst ensuring that adequate services are provided to the whole population. The agency responsible for these services in each discreet urban area therefore has the following responsibilities:

- To ensure that all households within their areas of service are provided with at least basic services within a reasonable time frame.
- To facilitate the provision of higher service levels through appropriate financing and tariff mechanisms, whilst ensuring the financial viability of the water and sanitation sector.
- To develop a business plan to show:
 - * the investment requirements and programme to meet service level goals decided, in terms of the above two principles, in consultation with the elected representatives of local residents;
 - * how the required capital investments will be funded, within the given capital subsidy policy framework;
 - * how the operating and maintenance costs, including interest and capital redemption charges on borrowed capital, will be fully recovered;
 - * the extent to which residents can afford and are willing to pay for the new services provided in terms of the tariff and income policy adopted.

The role of the Department of Water Affairs, as regulator and monitor of the sector, will be to advise the appropriate financial authorities on the viability of such plans from the perspective of achieving comprehensive provision of basic services.

Rural service financing. Although there are discussions about the introduction of rural service subsidies, the debate on subsidies and the financing of infrastructure in rural areas is not as advanced as in an urban context. Since the rural areas are already the worst serviced areas of the country and face an almost total lack of viable local government, the Department of Water Affairs and Forestry will give high priority to them.

As indicated above, the Department's policy on the financing of water and sanitation in rural areas is that basic minimum services may be subsidised by the Government, within the constraints of finances available to the State. The mechanism for such subsidies will be described in detail elsewhere. A basic principle is however that the communities should normally be the channel for such subsidies, through either a Local Water Committee or local government agency, although the implementing agent may be a Water Board or any other agent chosen by the Committee and approved by the Department.

Where communities choose a higher level of service than the basic service, such as making provision for household connections, the extra costs will have to be borne by the community. The

Department of Water Affairs and Forestry, or its agent (for example a Water Board), will however endeavour to assist the community to raise such extra finance.

Development in marginal areas The funding of services in marginal areas of the country with limited potential for sustainable economic development is a matter of concern since many of these areas are inhabited by victims of the removal and consolidation activities of apartheid governments. While it is argued that to invest further development capital in these areas will result in maintaining apartheid, failure to do so will penalise the victims once more. The policy of the Department will be that such communities are entitled to basic services as are any other citizens. Investment beyond basic services will however be related to the development potential of the area and the resulting ability of the local people to support higher levels of service.

Financing services beyond basic minimum levels The financing of local services is generally considered to be a local government issue. However the implications of financing policies are far-reaching and it is often the Central Government who is called in to solve problems when local authorities are not able to service their obligations. It is for this reason that the Government must lay down guidelines and, in some instances, constraints. The Department will support and assist local governments, Local Water Committees, Water Boards and Provinces to arrange financing where communities choose higher levels of service than the minimum levels or where communities can afford the finance costs.

The role of Water Boards Water Boards are expected, in terms of the Water Act, to be run on a self-financing, non-profit basis as independent financially viable institutions. Some of the larger Water Boards, acting as public sector corporations, have been very successful in raising money on the capital markets within the country. Repayment for the loans raised by Water Boards is achieved through the income received from the sale of the services to bulk consumers and direct consumer tariffs where applicable. As indicated below, it is proposed that the scope and function of Water Boards be reviewed to extend their capacity to serve a wider population. Where Water Boards provide additional functions, such as support to Local Water Committees, these costs may be reimbursed by grants channelled through the relevant local body.

Water Bonds The Department of Water Affairs and Forestry is currently discussing the notion of a National Water Bond and has a mixed public and private sector Working Group investigating the viability of such a scheme. The objective is to enable the smaller institutions in the water and sanitation sector to gain the advantages of scale and access to expertise to raise "cheaper" money whilst ensuring an attractive return for investors.

External finance, privatisation and other sources It is not expected that the value of foreign grant funds for water supply and sanitation programmes will be particularly significant in terms of total Government expenditure. Larger amounts of foreign loan funds, often of a concessional nature, will be available although the conditions attached to many of these loans impose costs and risks that reduce their apparent attractiveness.

The Department of Water Affairs and Forestry will however actively develop relationships with external funders with a view to identifying possible areas of financial co-operation. Of particular interest will be the potential to use concessional finance to fund the more economically viable schemes undertaken by the Department. This may enable Government to allocate further grant funding to meet the needs of the poorer communities.

As indicated in the discussion on the role of the private sector, full privatisation involving the sale of water supply and sanitation infrastructure is unlikely to yield significant sums of money since those services which are attractive to foreign investors are currently able to finance their operations and expansions from consumer tariffs and normal market loans while providing an effective service.

Internally within the statutory sector, there may, however, be opportunities to hand over certain Government water schemes to Water Boards who would take over financial responsibilities for them. The possibility that this could be done in a manner which would generate savings which could be applied elsewhere in the sector, will be investigated.

Service provision and catchment transfer schemes Catchment transfer schemes which transfer water in large quantities from one river basin to another have become common in recent years as a consequence of increasingly limited water resources. Such schemes are paid for in the long term by the consumers in recipient catchments and the development involved can bring direct

benefit to local communities in the form of both jobs and infrastructure such as local water supplies and access roads.

Concern has however been expressed because, while the requirements of far off consumers are provided for, the specific service needs of local communities in the catchment as a whole are often not met. The policy of the Department is that it is unjustifiable to develop a catchment transfer scheme while there are communities in affected parts of the catchment without basic water supplies. Catchment transfer projects will thus in the future include the development of local water supplies as an integral part of the project and a plan for such provision will have to be included when the White Paper for a scheme is tabled in Parliament.

Tariff policy

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Tariffs are the price paid for services. A sound tariff policy is essential if user contributions to the cost of service provision and operation are to be collected in a rational and systematic manner. While an overall national tariff would be virtually impossible to establish, since every water supply and sanitation system has a different cost, there is an urgent need for clear guidelines for the setting of tariffs for service provision.

The setting of tariffs and the adoption of tariff systems may be a local matter in the case of small supply schemes within a local authority area. Where larger, regional, schemes are involved, the adoption of tariff structures is also the concern of bulk suppliers such as Water Boards. Further, if Government is providing subsidies, it too may wish to establish certain tariff structures. Where support services are provided by regional agencies, the cost of these will also have to be determined by both local communities and the service providers.

There is at present great uncertainty throughout the country about tariff policies. In many areas water has been provided free of charge whilst in others the poor have effectively been subsidising the rich through inequitable tariff systems. There are various expectations of free services or of blanket set rates.

The policy of the Department is that all consumers of potable water must contribute to the cost of their water supplies. In poor communities which are unable to afford to pay both the construction and operation costs of schemes provided by Government, a social tariff covering only the operating expenses will be charged for the minimum level of service, which is a communal water source. For higher levels of service, the full cost of supply will be charged.

Provided the costs are covered, the tariff may be charged as a fixed monthly levy, a charge per volume of water received, or direct payment by the community towards the operation, fuelling and maintenance of their water supply. This policy will be put in place immediately in the case of new schemes. Where other arrangements currently exist, the new arrangements will be introduced in close consultation with the communities involved, within a period of two years.

Operating and maintenance costs: Communities must pay for their operating and maintenance costs to ensure both equity and sustainability. Where communities do not pay, and Government must cover these costs on their behalf, the result is a rapid reduction in finances available for the development of basic services for those citizens who have nothing. This has been the experience in apartheid South Africa where, for political reasons, many of the homeland administrations either did not or could not ensure that operating and maintenance costs were paid by consumers and soon found that their entire budgets were consumed in maintaining the existing very low levels of services. The result is that a small portion of the population enjoys free services whilst the majority has no services. It is therefore not equitable for any community to expect not to have to pay for the recurring cost of their services. It is not the Government who is paying for their free services but the unserved. This denies the principle of "Some for all - not all for some".

The other reason why operating and maintenance costs should be borne by the communities is the principle of Community Based Development. If the community expects some outside agency to be responsible for keeping their supplies going, they will have no control over the processes and lose leverage and ownership. Responsibility for keeping the service going is placed with a remote authority and accountability is lost. This will have an impact on the reliability of the supplies since

the person who has to carry water every day is likely to be far more interested in the sustainability of the village water scheme than some remote Government official.

Uniform tariffs. The adoption of a uniform tariff system throughout the country has been proposed in some quarters. The provision of water supply is unlike other basic services such as electricity in that the development of the water sources and the costs of supply vary greatly from one place to another. If a uniform basic tariff were set throughout the country or even in a particular region it would generally result in poor communities who had access to relatively low cost systems subsidising other, perhaps better-off communities, with more expensive systems. The costs of administering the transfer of such funds from one part of the country to another would add a further burden and it would be almost impossible to maintain transparency.

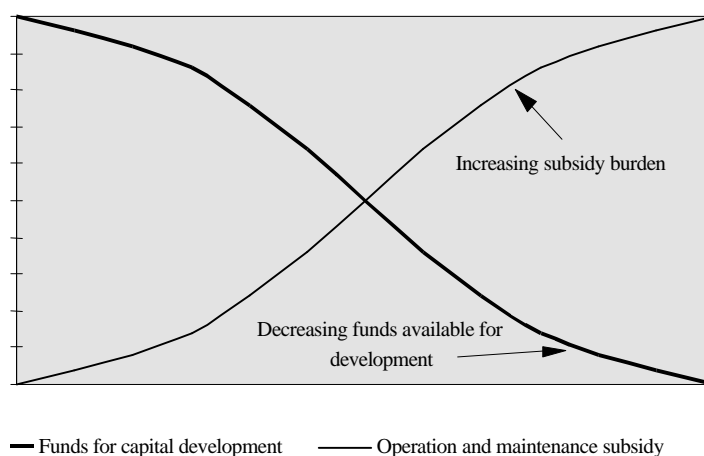
Life-line (social) tariffs It is the policy of the Department of Water Affairs and Forestry to support the adoption of life-line tariff systems to ensure that every person has at least a basic level of service. It is neither possible nor wise to set such a minimum tariff at national level - that would be equivalent to the setting of a uniform tariff rate. Such rates need to be set at local or regional level with the full participation of all interested parties.

Sliding tariff scales In accordance with the principle that water has an economic value which should be recognised, the policy of sliding tariff scales is endorsed by the Department of Water Affairs and Forestry. The basic approach identifies three separate tariffs:

A life-line or social tariff. This is to cover basic human needs. The quantity shall not exceed 25 litres per capita per day. The tariff shall be set so as to cover only the operation and maintenance costs.

Normal tariff. This is for normal use. The quantity shall not exceed 250 litres per capita per day and shall be provided at cost (operation and maintenance plus capital) including the losses incurred through the life-line tariff.

Marginal tariff. Water consumption exceeding 250 litres per capita per day will be charged for at marginal cost defined as the present day cost of the latest or next augmentation scheme. Sliding tariff scales require some form of metering. The guidelines provided will be considered as the standard for all Government assisted or subsidised schemes. It should be noted that, whilst these guidelines are provided in the form of daily amounts per person, these may need to be transformed into formats which simplify administration such as typical monthly consumption per household.



: 6 The operation and maintenance subsidy burden

Marginal tariffs and the re-evaluation of capital costs A technical issue which may be of importance is the accounting approach used to calculate tariffs in large regional schemes. Because certain communities have been served for a long period, the historic cost of the original infrastructure is very low and it has little impact on tariffs. The cost of replacing or expanding such infrastructure is very high. It is possible that calculating certain tariffs on the basis of the current value of the infrastructure would help both to restrain the growth of water consumption, an increasingly important consideration in many areas, as well as generate funds for investment in basic needs.

The options and their potential impact will be reviewed by the Department as part of its overall approach to sector financing.

Communal tariffs: Where communal services are provided by the Local Water Committee such as a borehole equipped with a handpump or a street standpipe, the average usage is unlikely to exceed the basic level. In such cases residents could pay a uniform life-line tariff as described above.

Improvements in water supply and sanitation services: Where communities or individuals wish to upgrade or improve their water supply or sanitation services to a higher level than the basic services described in this White Paper, this cost should be fully paid for by the individual or community. Depending on the nature of the upgrade and the local circumstances, the improvements could be paid for through a connection fee, the ongoing tariff or a combination of both. The provision of alternative forms of credit should be considered to assist consumers who would not otherwise be able to afford connection fees.

Tariffs and service choice. A common experience in many countries is that there is consumer resistance resulting in non-payment where the consumer community has not been fully involved in the development processes, in the choice of service levels and in the processes of tariff setting. Often resistance occurs where the level of service does not meet the expectations of the consumers. People are often prepared to pay a higher rate for a service which meets their expectations than a lower rate for a service which does not. Often therefore lower levels of service are less sustainable than higher levels.

Non-payment for water In those parts of the country where consumers have enjoyed free supplies of water, the costs have been borne by the State usually through the now defunct homeland administrations. This was often because of the over-riding political environment and because of administrative and management inadequacies. In terms of the policy set out above this situation will have to change. Full payment of at least recurring costs will be introduced over a period of two years. This will coincide with those communities who enjoy such services gaining greater control and responsibility for them through the introduction of democratic local government during this period.

There are a number of communities who have recently stopped paying for water services in the light of confusion surrounding Government policy and the expectation that, since the elections, it is the Government's responsibility and function to provide water without charge. This is incorrect and is leading to serious financial problems and the possible interruption of services in some areas. Such communities should resume payment without delay in order to avoid the diversion of scarce funds earmarked for the development of water and sanitation supplies in unserved areas.

Unauthorised connections: A major problem faced by many communities is the practice of unauthorised connections. Residents make connections to the mains to provide private houses with water which, in many cases, is also used to irrigate vegetables and gardens. Since this water is not metered and not paid for, consumption is often very high. This practice generally results in the failure of the system and those consumers in high lying areas or at the end of the distribution system do not get any water.

In some cases, these connections were made because no provision had been made for consumers who wished to have higher levels of service. In line with the policy regarding non-payment, such connections should be regularised within two years. After this period, sanctions will have to be imposed.

SECTION D: IMMEDIATE INITIATIVES

In response to the high priority attributed to water supply and sanitation services, a number of initiatives have already been taken by the Department of Water Affairs and Forestry in line with the policies described above. These are presented below.

REGIONAL WATER SUPPLY AND SANITATION OFFICES

The Department of Water Affairs and Forestry will have two organisational structures for the execution of its water supply and sanitation activities. These are the direct capacity established in the Department's own regional offices and statutory institutions such as Water Boards.

In accordance with the principle that all South Africans shall have access to basic services, the network of supporting second tier institutions will cover the entire territory of the nation.

The role of these second tier institutions will be to support organised local government as well as communities where effective local government has not yet been established. They will respond to demand from the communities as well as act directly to ensure that the minimum standards established by national Government are achieved. They will also act as bulk regional suppliers of water where appropriate.

The location of existing regional offices of the DWAF is catchment based in accordance with the requirements of their water resource management functions. They are thus often not ideally placed to support water supply and sanitation activities in the former homelands where the majority of South Africa's rural population still lives. The scope of these activities suggests that new, specialised regional offices will be required to undertake this role. These will be located where appropriate, usually in the provincial capitals to accommodate the need for liaison with provincial governments on issues of planning and operation.

These water supply and sanitation offices will be the executive arm of the Department except where Water Boards are established. When this occurs, the regional offices will continue to play a role in the planning of new services, the allocation of central Government funds and the monitoring and regulation of service provision.

THE EXPANDED ROLE OF WATER BOARDS

Water Boards will be considered as the primary agent of the Department of Water Affairs and Forestry in the development of water supply and sanitation services at regional level. Water Boards will continue to function as non-profit parastatal autonomous utilities as described in the Water Act of 1956, under the authority of the Minister of Water Affairs and Forestry.

Water Boards were established to supply bulk water for industrial or municipal use within an area determined by the Minister of Water Affairs and Forestry. In future Water Boards will be charged with fulfilling an appropriate role in the provision of services to all communities in their service areas. The role of the water boards will be of two types:

- Firstly they will continue to supply water directly to organised communities and, where appropriate, to individual consumers. This may also include the provision of sanitation services where appropriate.
- Secondly they will perform a support role. They will assist in the establishment of statutory Local Water Committees and in the training of the committees to manage their own water supplies and sanitation service provision. Assistance will take the form of technical, administrative and training assistance to Local Water Committees and to Local Authorities.

The service areas of Water Boards may accordingly be divided into supply areas and support areas.

Water Boards will continue to function as independent financial entities on a break-even basis. This is important to ensure that they operate efficiently and effectively. They may however be employed as agents to undertake basic services provision on a subsidised basis where the subsidies will be provided by the Government to local authorities or LWCs. Water boards should function in a publicly accountable fashion as transparently as possible particularly in the issue of subsidies. Water Boards are not a replacement for local authorities and should not attempt to establish such a role.

In order to ensure that Water Boards fulfil their required function in terms of the policy set out in this White Paper and in support of the Reconstruction and Development Programme, the following programme has been instituted:

- The present persons serving on the Water Boards do not reflect the full spectrum of consumers of water. This is being rectified at present to ensure that there is proper representation of all sectors of society.
- Under the previous government the area of supply of Water Boards did not include homeland territories. In consequence, the areas of supply of the present Water Boards are in many respects illogical and will be redefined and rationalised.
- The functions of Water Boards need to be redefined to include supplying water to local communities where there is no local authority and to include sanitation. In addition, Water Boards will need to support communities in the development and operation of small local water supply systems where bulk supply systems are inappropriate.

- Tariff structures need to be revised in some instances, with justifiable tariff equalisation where appropriate.
- New Water Boards need to be established where they do not exist at present.

LOCAL WATER COMMITTEES - SUPPORTING THE DEVELOPMENT OF LOCAL DEMOCRACY

As described in the section on the role of local government, the Minister of Water Affairs and Forestry will be empowered, in terms of the amendment to the Water Act currently before Parliament, to establish statutory Local Water Committees (LWCs) to undertake the task of local water and sanitation service provision.

It must be stressed that the LWCs will be temporary and will ultimately be integrated into local government structures when these are established and are competent to perform the function of service provision.

The functioning of the LWCs will be governed by regulations which will be drafted in consultation with the Department of Provincial Affairs and Constitutional Development and with the Provincial MECs for Local Government as well as with representatives of community based organisations.

The objective of the regulations is to encourage and empower communities, not to entangle them in endless bureaucracy and impossible requirements. It is the intention to encourage those communities which have already advanced substantially with local water or development committees and forums to register under the new regulations, rather than to create new parallel and inevitably conflicting structures.

LWCs will be statutory bodies empowered to act as legal persons, to own materials and plant, to trade on a non-profit basis, to enter into approved loans and generally to carry out the business of providing water and sanitation services to their communities. LWCs will be financially accountable to the community they represent, and to the Government as statutory bodies.

In many parts of the country, in both urban fringe areas and in villages and dense settlements in the former homelands, water and sanitation schemes of varying standards already exist. These were provided by various authorities, largely in the absence of effective, credible local government. The proposed LWCs are therefore required in areas where services already exist in order to assume responsibility for such services at a local level, but also specifically in the unserved areas. Where applicable and once they have established the competence, the LWCs will take over the ownership and management of existing water supply infrastructure.

The function of the Department of Water Affairs and Forestry and its agents will be to support the LWCs to carry out their functions, not to do their work for them which would lead to disempowerment. The Department, through the Community Water Supply and Sanitation structures, or through its agents, will therefore concentrate on the provision of training, capacity building, planning advice, technical assistance and construction supervision.

Although the regulations have not yet been drafted, it is proposed that the LWCs will proceed with the development of services as follows:

Initially, a committee will have to be able to demonstrate that popular elections have been held and that the committee enjoys popular support. On registration the Committee will be eligible to apply for a Training Grant. Training will include the committee and the community at large. The content of training will vary from region to region to take account of differences and will be designed in consultation with communities and interested parties in each region. Training will be carried out by a range of institutions. Training is not a once off occurrence but a process which will also be included in the following stages.

On successful completion of training Committees will be eligible to apply for a Planning Grant to enable them, with the assistance of an accredited agency (a Water Board, an NGO or a consultant), to plan their water and sanitation development programme in conjunction with other development programmes. To avoid planning being done in isolation from the catchment and adjacent communities, the Department or its agents will provide support and guidance. Committees will also at this stage be expected to begin to take responsibility for management of existing infrastructure. The planning may include items such as:

- an assessment of possible water sources and supply schemes, either local or from a bulk supply,
- assessment and choice of level of service by the community,
- planning of a community sanitation programme and community public health awareness campaign,

- assessment of the cost implications and the availability of finance beyond the state subsidy for basic services if the community chooses a higher level of service,
- planning for labour based construction,
- planning of tariff structures,
- planning for the LWC to operate and maintain the system and to employ suitable local watercare staff,
- planning and review of the governance capacity of the LWC.

On the basis of an approved plan, Committees may apply for a Construction Grant provided that they meet set requirements for tariff structures, operation and maintenance procedures, and provided that they have demonstrated consistent committee competence and democratic process.

This procedure will provide a clear and simple progression for communities to attain at least basic water security and an adequate level of safe sanitation. It will also put the control of the process into the hands of the communities - they will progressively handle the finances, they will appoint the agent of their choice to assist the planning and the construction, they will have to choose the scheme and level of service they require and they will have to weigh up the cost implications of their choice. The Department or its agents will assist communities who have difficulties embarking on the process but applications for registration will only be accepted from communities, not from agents on behalf of communities.

NATIONAL SANITATION STRATEGY

There are a number of areas where policy will be formulated and where national guidelines are required. These areas are:

- the institutional and working links with the health sector,
- guidelines for the planning and implementation of sanitation projects,
- clarity on the extent of basic services deemed to be included in the national housing subsidy and how the bulk services to such schemes are to be financed, both with regards to capital and operating costs,
- policy on pricing, finance and standards and a strategic planning tool to assist urban services managers to make informed investment decisions on the basis of a longer term view of their possible impact and financial implications.
- guidelines on how to assess the relative environmental, health and social impacts of off-site and on-site sanitation systems,
- guidelines on waste recycling and beneficiation, and the siting of treatment and disposal works to ensure that they are environmentally acceptable and accessible,
- guidelines to ensure that communities are enabled to manage waste so that the greatest possible proportion of total waste is brought into the formal waste stream,
- guidelines for private sector engagement particularly with respect to financing, long-term asset management contracts and asset transfers,
- guidelines for appropriate education and training programmes.

MONITORING AND INFORMATION

Monitoring, performance auditing and regulatory functions

An important function of the Central Government is, whilst devolving implementation to the lowest level possible, to ensure that what happens at grass roots level meets the required standard. The policy in this White Paper is aimed at opening up the arena for as many participants as possible to engage in the task of developing basic water and sanitation services. For this to be effective, it will be necessary to monitor and regulate their performance.

The policy is designed to ensure that the local community controls the process through existing Local Authorities or the proposed Local Water Committees. Unfortunately there is scope for unscrupulous operators to exploit the communities and the people, and there is scope for the failure of public bodies to perform their functions.

High standards of performance will be expected of statutory bodies including second tier bodies such as Water Boards and local authorities. The policy of the Government, as expressed in the RDP, is to promote a more thorough approach to performance auditing in Government and parastatal organisations. The monitoring of performance will both be to ensure that standards are maintained and to ensure that adequate basic service coverage is achieved and maintained in order to achieve the equity objectives of

the Government. The financial performance of institutions will be regularly assessed including the effectiveness and efficiency with which subsidies are used.

For monitoring and performance auditing to be effective:

- A system of clear standards and criteria must exist. The Department will establish such criteria, after broad consultation, and will ensure that all parties are aware of the standards and regulations.
- An appropriate information system must exist which will enable the Department to know what is actually happening at both grass root level and in the public bodies responsible for water supply and sanitation provision.

A Directorate will be established in the Community Water Supply and Sanitation structure of the Department to undertake these functions.

The objective of monitoring and performance auditing is not primarily punitive but supportive. The objective is to ensure that goals are met, which is best achieved through support and co-operation rather than through coercion. Where the reason for non-achievement or non-compliance is a lack of managerial or administrative capacity the Department will seek to provide assistance to build such capacity.

Information and decision support systems

Central Government has a responsibility to ensure that basic services are delivered and has a performance monitoring role. Other organisations at various levels will be responsible for implementation and operation. Such functions at different levels are not possible in the absence of adequate information. The Department is therefore planning to establish a National Water Supply and Sanitation Information Management System.

In order to successfully support a national basic water supply and sanitation programme the existing information systems in the country need to be upgraded to overcome various shortcomings. Information is dispersed amongst a range of organisations such as the former homelands, various Government Departments, Water Boards, consultants and non-government organisations, and is not readily available. Information is also duplicated and data inconsistencies exist.

The focus of the Department of Water Affairs and Forestry of the previous "RSA" was on the management of the water resources of the country, excluding the former homeland areas. However, many elements of the information systems of the previous Department of Water Affairs would form vital elements in the proposed National Water Supply and Sanitation Information Management System such as :

- **Water sources** - The Hydrological information system [surface water] and the National groundwater data base
- **Water quality** - Quality data base
- **Water allocations** - Water right information system
- **Water demand** - Water demand information system
- **Spatial information** - Geographic information system

The information system must provide useful and accessible information for communities, Local Water Committees and Local Authorities, second tier water bodies i.e. Water Boards, Provincial Governments, consultants, NGOs, and various other Central Government Departments
The principles of the proposed National Water Supply and Sanitation Information Management System will be:

- The National System must be people - focused and service orientated.
- Information should be accessible to communities and to all levels of the water industry. Information available to different sectors should be useful, relevant, reliable and in an appropriate format (electronic formats and printed format).
- The information system should make maximum use of the previous Department of Water Affairs and Forestry information systems and information from all other relevant sources in the country.
- Participation in the information system must encourage co-operation and co-ordination among the various levels in the water industry.
- The new Department of Water Affairs and Forestry will be the custodian of the information system and will rely heavily on various organisations for updating the information.

SECTION E: SUPPLEMENTARY POLICY AND BRIEFING INFORMATION

There are a number of policy issues which are related to basic water supply and sanitation service provision. These should be read in conjunction with the issues already raised in this White Paper.

SUPPLEMENTARY POLICY

Women - the focus of development

Development experience world-wide has demonstrated that women play a fundamental role in the provision and maintenance of basic services. Women are the key to household health and have borne the burden of underdevelopment over the years. They care for those who suffer the inevitable consequences of unsafe water and sanitation, and they are the basic survival strategists of the household and the community. As stressed in the RDP, any policy or project which does not ensure their full and active engagement at all levels is bound to meet with failure or only partial success.

The contribution of women must extend far beyond the patronising concept that their role is restricted to involvement in basic services only, as described above. Women must assume increasing roles in all spheres and levels of the water sector, particularly in the public service.

In order to ensure successful and sustainable development, and to give substance to the constitutional prerequisite that women should enjoy a full and proper role in society, all statutory bodies in the water sector, including Local Water Committees, shall be recommended to comprise a minimum of 30% women. This should apply at all levels, particularly in management, and should be instituted within five years. Measures will be established to monitor progress in this regard.

Water and the environment

The Department of Water Affairs and Forestry's policy on the environment is based on the unity and indivisibility of all aspects of human life and the total environment in which human development occurs. It is therefore a contradiction to talk of sustainable development from the perspective of service provision without ensuring that the environment from which the resource is derived is protected and sustained. In this regard the "indivisibility" of water as a natural resource is clearly evident - each activity or call on the resource has an impact and an effect. The environment should not therefore be regarded as a "user" of water in competition with other users, but as the base from which the resource is derived and without which no development is sustainable. Protection and conservation of the natural resource base is therefore imperative. Even the simplest and smallest of projects thus requires attention. The concept of water as having economic value should therefore be extended to it also having intrinsic environmental value.

The Department will compile guidelines for sustainable development in the near future, after due consultation. The guidelines will aim to ensure that, in all developments irrespective of size, the following issues are addressed:

- The resource characteristics are understood,
- Abstraction is sustainable and does not degrade the resource,
- Provision is made for monitoring the resource,
- Protection measures are implemented where necessary,
- Simple environmental impact assessment procedures are applied,
- An auditing function is established to review development projects and to ensure that the guidelines are being applied.

Further policy perspectives of the Department in relation to the environment are:

Conservation and demand management In a semi-arid country such as South Africa, different users are increasingly having to compete for water resources. This could lead to the long term degrading of limited sources of water which will be difficult if not impossible to rehabilitate. An important element of both water supply and water resource management is the establishment of a culture of conservation and the introduction of stringent demand management strategies to reduce water usage and the stress on resources.

Consultation Arising from the unity and indivisibility of human development and the environment, the role, opinion, and local wisdom of communities and other interested and affected parties is

essential in ensuring the sustainability of both development and the environment. Of particular importance is the role of women and youth.

Water research

Water research in South Africa has tended to follow the requirements of the water sector in general and therefore has a similar history. Research has been concentrated on addressing the problems and needs of the wealthy sector and South Africa has become world renowned in some of the finer points of effluent treatment, weather modification and other specific scientific issues. Centres of expertise have been built over periods of many years in white universities which are of great value and importance to the country.

The policy of the Government is to shift the emphasis of research to gaining a greater understanding of the needs of communities and the problems associated with achieving the goals of universal basic service coverage in the country, whilst ensuring that important areas of research presently underway are continued. Much existing research could assist the objectives of the RDP with relatively few adjustments. The emphasis will also shift to creating centres of expertise in the historically under-resourced universities which are well placed to address the needs of rural people around the country.

A number of meetings have been held with senior officials of the Water Research Commission to discuss how this new policy can best be implemented and plans are being prepared. The make-up of the Board of the Commission is also under review to ensure that the members more closely reflect South African society and the new policy emphasis in particular.

Managing droughts and other disasters

The new Department of Water Affairs and Forestry, as a national Government department, assumes responsibility to provide assistance at appropriate levels in the event of disasters related to water. The majority of such crises are either drought or flood. In most instances it is the poor who suffer most because a small change in their circumstances can have a far greater effect on their ability to survive than a similar change in the lives of more affluent citizens. The poor are often forced by their circumstances to occupy land which is prone to disaster, such as the more arid parts of the country and flood plains.

Drought is a common occurrence in the country and, as the demand on limited resources increases, the situation becomes more vulnerable. Water scarcity is often more a case of poor management of water supply systems than the physical lack of water - the situation is merely highlighted during dry periods because alternative sources such as rivers and springs cease to yield an alternative supply. It is the policy of the Department that crises such as drought need to be managed and co-ordinated on an inter-departmental basis because multiple resources are needed to support affected communities.

Because drought is a common occurrence it would be expected that greater preparedness would exist to alleviate its impact. In the past most drought aid has been channelled into reducing commercial agricultural debt and many marginal communities, particularly in rural areas, have had very little effective and sustainable support.

During the present 1994 drought crisis the Department has established joint crisis committees with Provincial authorities. A sum of R3 million in drought support finance was approved by the Cabinet to enable the Department to take immediate steps to assist the worst hit communities. Ad hoc solutions to disasters are inadequate. The Department of Water Affairs and Forestry supports the proposal to create an inter-departmental structure to take responsibility for long term national disaster management and mitigation strategies.

Irrigation boards

One of the primary users of water is the agricultural sector. Water is perhaps the major production input and access to water determines the potential wealth of the farmer. As described above, the early history of water development in South Africa was focused on irrigation and enormous public resources were allocated to the development of water resources for the owners of suitable agricultural land who constituted a very small proportion of the population.

Irrigation Boards are statutory bodies established in terms of the Water Act. The administration of the Irrigation Boards was placed under the Department of Agriculture by the previous government although their legal status remains in terms of the Water Act. The administration of irrigation boards will revert to the Department of Water Affairs and Forestry in the near future.

The amount of water that Irrigation Boards are permitted to use is determined by an allocation or apportionment made by the Department of Water Affairs and Forestry. The allocation of water has a direct impact on property values and is seen as a property right by many. In many parts of the country the water is fully allocated which creates enormous problems for those communities who previously were not permitted to own land or for whom water is now required for basic services and development. Where existing allocations of water do not allow for equitable access to all, or where they place a restriction on development for a particular sector of people, the Department will investigate far reaching re-allocations.

The policy of the Government on Irrigation Boards is similar to the policy for Water Boards and a strategy of rationalisation and democratisation will be implemented in due course.

BRIEFING INFORMATION

Water as a natural resource

Water is a scarce and valuable resource in South Africa. Most parts of the country do not have high rainfall and droughts are an ever-present threat in all regions.

Surface water: South Africa's average annual rainfall of 500 mm is only 60 per cent of the world average. It is poorly distributed, particularly relative to areas experiencing growth in demand. Only a narrow region along the eastern and southern coastlines is moderately well-watered, while the greater part of the interior and the western part of the country is arid or semi-arid. Sixty-five per cent of the country receives less than 500 mm of rain annually, which is usually regarded as the minimum for successful dryland farming. Twenty-one per cent of the country receives less than 200 mm. As it gets drier towards the west the rainfall becomes more variable. Over most of the country the average annual potential evaporation, which ranges from about 1 100 mm in the east to more than 3 000 mm in the west, is well in excess of the annual rainfall, which reduces the surface runoff greatly.

The combined average annual runoff of South Africa's rivers is estimated at 53 500 million m³. Owing to the variability and the high evaporation losses from dams, only about 62 per cent or 33 000 million m³ of the average annual runoff can be used cost-effectively with present technology. For instance, in some areas the rivers have periods of up to 10 years of low flow, which must be catered for in the planning and the operation of water supply systems. Rainfall is restricted, possibly in cycles, by the forces of nature, over which neither the Department of Water Affairs and Forestry nor even the Government of National Unity has any control. A vital component of the water supply mechanism is the catchment area itself, the development of which must be managed according to sound environmental and resource allocation principles.

In many parts of the country, the local resources are fully utilised or overdrawn. A question which demands attention is the equity of the present water allocations. The allocation of water rights is akin to the ownership of land in South Africa, with a very similar question of equity. For water management to benefit all people in South Africa equitably, the available water has to be treated as a national asset.

Ground water: The importance of ground water is rapidly growing throughout the country because of dwindling surface water resources and the need to develop local resources optimally. Unfortunately, most of South Africa is underlain by hard rock formations, so only about 5 400 million m³ of water per annum may be obtainable from underground sources. The ground water is also saline over large areas of the country. Although ground water plays a lesser role in the water supply of South Africa than it does in many other parts of the world where extensive primary aquifers are the main sources of water, it is often the only source available to isolated communities, or may be the most cost-effective alternative.

A difficulty hampering the use of ground water is uncertainty about its location and the potential supply from boreholes, mainly owing to insufficient knowledge about the characteristics of ground water sources. The Department has embarked on a groundwater characterisation and mapping programme to overcome this, although the programme needs to be accelerated.

Water quality Unfortunately, limited water availability is only part of the problem. As South Africa is a water deficient country, all effluent has to be purified and returned to the rivers. As a result of inadequate effluent treatment and illegal discharges, the quality of water is deteriorating in many areas. In time, quality may become a more important factor than quantity in water management in some areas, particularly in the interior.

The aim of water quality management by the Department is to ensure the fitness for use of our water resources for domestic, industrial, agricultural and recreational purposes on a sustainable basis while protecting the ecological integrity of the water environment. A comprehensive water quality management policy has been developed by the Department which embodies the principles of pollution prevention, a precautionary approach and a receiving water quality objective that will meet user requirements

Water rights and the law

Water law is extremely complex. It is inter-linked with many other aspects of law including land rights. Water law has a direct bearing on the everyday lives of all South Africans and therefore is very relevant to the achievement of the goal of universal basic service coverage in the country. South African water law has developed over time and now needs to be revisited to ensure that it meets the needs of all, especially the poor.

The present situation The water law of South Africa has been developed over the past 300 years primarily in the interests initially of agricultural land owners and more recently in the interests of industry and urban municipalities. The law has been based on the legal concepts brought by the Dutch (Roman Dutch law) and the British colonialists. The suitability of transposed law to both the climate of South Africa and the needs of the majority of its people is questioned.

The initial Roman law concept of *dominus fluminis* distinguished between private water and public water, and determined that the right to the use of public water was vested in the State. The use of public water by any other individual or body was subject to the authority of the State. Exclusive use, for any purpose, of private water rests with the owner of the land on which it is found. All other water is public water. The British introduced the principle of riparian rights which gave riparian land owners the right of use of public water which effectively replaced the principle of *dominus fluminis*. Riparian property is land through which a water course passes or which is bordered by a water course. Water law was first codified in a number of Irrigation and Conservation Acts between 1906 and 1912. These acts divided public water into normal and surplus water. Normal flow was deemed to be the perennial part of a river's flow and surplus flow is irregular high flows. The use of water by riparian landowners was determined differently for normal and surplus water. Normal water was on the basis of proportional apportionment, which is determined by the Water Courts in the case of disputes. A riparian owner is entitled to as much of the surplus flow as can be stored and beneficially used.

With increasing urbanisation and industrialisation a review of the water law became necessary which led to the promulgation of the Water Act of 1956 (Act 54 of 1956). The Act retained the principle of riparian rights but introduced some restrictions on the quantity of surplus water which could be stored or diverted without State sanction. Control by permit of the use of public water for industrial and urban purposes was introduced. The Act also provided the State President with the authority to declare any area a Government Water Control Area where the State can exercise control over the use of public water. Provision was also made for the establishment of Water Boards, primarily for the supply of water to urban and industrial consumers.

Ground water Ground water is generally considered as private water unless its use is prescribed in terms of a Subterranean Water Control Area.

Water Quality The Act provides for the control of the discharge of pollutants into water courses as well as measures for taking action against offenders.

Ownership of water Private water is owned by the owner of the land on which it is found. Riparian land owners and concession holders who have gained the right to use public water are deemed to have the right of use but do not own the water.

Rights of different consumer categories The use of normal flow for domestic water and stock water has priority over irrigation and other uses. Up-stream use of normal flow for purposes other than domestic supply or stock water is restricted if such use would deprive down-stream users of such supply. Surplus water is not subject to such restrictions and riparian owners may use the entire normal flow of tributaries.

Situation in the previous homelands The Department of Water Affairs of the "RSA" had no jurisdiction in the homelands, however these areas generally adopted the Water Act of 1956 except for Bophuthatswana which developed its own Water Act.

Revision of water legislation South Africa is a semi-arid country with limited water resources. It is inappropriate for the country's water law to be based on systems imported from foreign countries with dis-similar climates. There is a need therefore to review South Africa's water law entirely. A White Paper to this effect will be presented to Parliament during the 1994 Session giving notice of this and calling for public representations on proposals for consideration in a new Act which will be prepared during 1995.

The principle that "water security for all" should supersede all other rights to water will be considered together with the concern that rights to access to water for all, particularly for basic human needs, have been prejudiced by the rights of riparian property owners and the concerns of industry and commercial agriculture.

There is also a growing need to regulate the exploitation of ground water which in many instances is at present being exploited beyond the capacity of natural recovery. This has a serious effect on the low flow of the country's rivers which compromises the water security of communities and directly harms the environment.

The sanitation issue

The question of sanitation, perhaps more than most development issues, needs to be seen in the context of an integrated development strategy. The impact of inadequate sanitation services on a variety of sectors needs to be fully understood. These include the impact on the water resources of the country, particularly water quality, and the impact on the health and well being of the population. It is for these reasons that water supply and sanitation are inextricably linked as part of the broader development process, and why the Department is undertaking the responsibility of assuring that all South Africans have access to adequate sanitation services.

Because of the obvious links between sanitation and health, the Department will work in close co-operation with the Department of Health in policy formulation, planning, implementation and monitoring. The Department will also work closely with Provinces to assist local authorities where necessary both to ensure that adequate services are developed and to ensure that water quality is not compromised through inadequate or ineffective waste treatment.

Sanitation goes far beyond the issue of toilets, although safe disposal of human excreta and other domestic waste water is a major and necessary requirement for safe sanitation. Personal, family and cultural hygiene practices and habits are critical. If these are unsound the upgrading of physical toilet facilities alone will not solve the problem. Therefore sanitation improvement encompasses an entire process, aimed at the home and the individual, which must include health and hygiene education as well as improving the physical infrastructure of toilet facilities, water supply and disposal of domestic waste water.

The health implications of poor sanitation practice and facilities are enormous. Diarrhoeal disease, intestinal infections, polio, typhoid and cholera result from poor sanitation. The incidences of the diseases in rural and squatter settlements are not fully documented because of inadequate health facilities. The average child mortality rate for children under the age of 5 in rural areas is estimated to be 12%, and 50% of deaths between the age of one month and a year are faecal related (gastro-enteritis).

An estimated 21 million South Africans do not have access to adequate sanitation facilities. The estimated number of people who do not have adequate sanitation in urban areas (broadly defined as metropolitan areas, including "dense settlements") is 7,67 million (31%). Some 2 million people still have to rely on the bucket system which, as stated is generally not an acceptable system from a health perspective or in terms of community acceptance. Only rough estimates of service levels are available from the rural areas. It is estimated that in these areas 14,1 million people do not have adequate sanitation services which is 85% of the rural population.

Everybody uses some form of sanitation facility every day. Those millions numbered above who do not have "safe sanitation" use either the inadequate bucket system, unimproved pit latrines or the veld. In addition there is a disturbing increase in inadequately designed or operated water borne sewerage systems where the impact of failure on the health of the community and the pollution of the environment is extremely serious. Inadequate lower levels of services may well pose less of a threat than failed high level services.

These inadequate facilities, combined with unhygienic practices and a general lack of formal water supplies, as well as safe disposal of other domestic waste water, represents South Africa's sanitation problem.

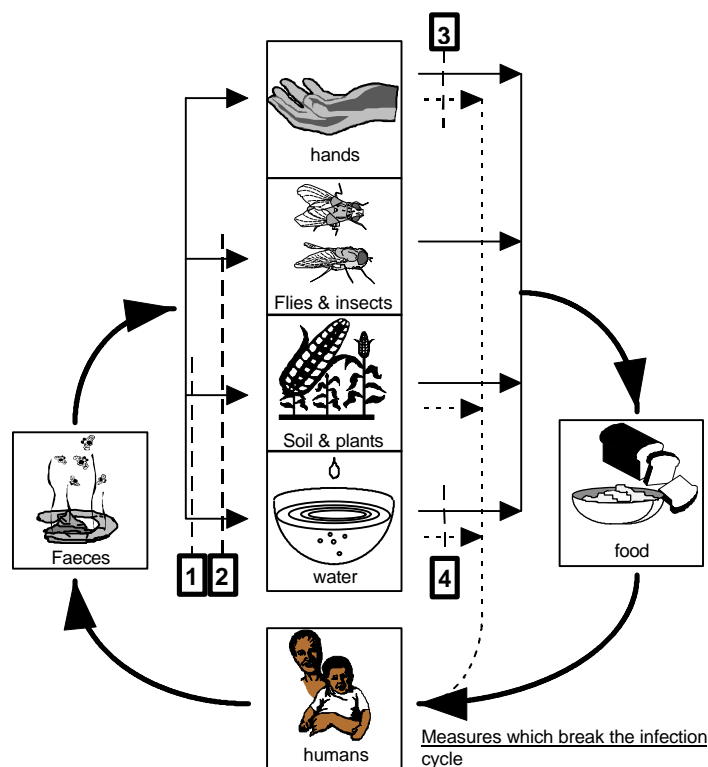
The effects of the sanitation problem are threefold:

- **Health impact** - the impact of the statistics presented above on the health of the urban and rural poor is significant. The effects on the quality of life, education and development potential of communities is difficult accurately to determine.
- **Economic impact** - the effect on household economies is serious, keeping families in the cycle of poverty, illness, illiteracy and lost income. The national cost of lost productivity, reduced educational potential and curative health costs is a major drain on the local and national economy.
- **Environmental effects** - inadequate sanitation leads to dispersed and diffuse pollution of water sources resulting in the water/faecal disease cycle for communities with untreated water supplies and increased downstream water treatment costs.

The causes of the problem are:

- **South Africa's political history** - The history of sanitation development in South Africa is bound up with the history of all other aspects of equity, land, development and the economy. There has been no political will in the past to address the problem.
- **Sanitation is not popular** - Sanitation is not a popular topic at any level in society. It is not an attractive career, nor is it a political campaign issue. The topic is uncomfortable and taboo. It consequently lacks the priority that it should enjoy in relation to the burden that it places on society.
- **Institutional fragmentation** - As in the water sector there have been hundreds of authorities and homeland structures in the past with nominal responsibility for sanitation. The confusion surrounding whether sanitation should fall under health, works, environment, or water has not, until now, been addressed.
- **Lack of national policy** - Given the institutional fragmentation of the past it has not been possible to develop a national sanitation policy. This White Paper provides some guidelines but it does not constitute a comprehensive national policy. The Department of Water Affairs and Forestry intends calling a national workshop in the near future involving all interested parties, particularly the Department of Health, to establish a national policy.
- **Poverty, illiteracy and poor education** - Poor sanitation does not exist in isolation from other poverty-related issues. It forms part of the poverty syndrome - it is hence both a cause and a consequence of impoverishment. Illiteracy and poor education result in an ignorance of the consequences of personal and family hygiene custom and practice. Whilst the ill effects of certain customary sanitation practices may have been less evident in the past, it is clear that, with increasing population densities in rural and urban settings, certain practices and traditional beliefs pose a serious threat to public health.

In conclusion, it can be seen that sanitation is a complex issue which makes sustainable development of sanitation services extremely difficult. To succeed, careful attention must be given to the development of a joint strategy involving the Department of Water Affairs and Forestry, the Department of Health and the Provincial Governments. The strategy of the Department to address sanitation is discussed in SECTION D .



The faecal infection cycle

- Measures which break the infection cycle**
- 1 Unimproved pit latrines
 - 2 Ventilated, improved pit latrines
 - 3 Hand washing
 - 4 Safe domestic water

SUMMARY OF MAIN POLICY POINTS AND CONCLUSION

SUMMARY

Policy Principles:

- Development should be demand driven and community based,
- Basic services are a human right,
- “Some for all” rather than “all for some”,
- Equitable regional allocation of development resources,
- Water has economic value,
- The user pays,
- Integrated development,
- Environmental integrity.

With regards to water supply and sanitation services, *the role of the Central Government* is to manage the nation's water resources, to ensure that all citizens have access to adequate basic services, and to promote a supportive and enabling environment for community based development. It is also to provide national policy, guidelines and standards, and to monitor and audit progress. Only where there is lack of local capacity will it intervene in terms of the Constitution.

The role of Provincial Government is to perform Schedule 6 functions in terms of the Constitution, particularly the development of local government.

The role of Local Government is the provision of services to residents. Statutory Local Water Committees may be established where local government does not exist. Local communities are therefore the point at which implementation, operation and maintenance of services will take place. Training and capacity building for communities is therefore an important part of the Government's strategy.

Water Boards will be democratised and rationalised and their mandate extended to include sanitation and provision of services direct to consumers in the absence of functioning local authorities.

The Private Sector and NGOs have a major role in serving the public sectors.

Basic adequate services are defined as potable water supply of 25 l/person/day within 200 m cartage distance, and a ventilated improved pit latrine.

The policy of Government is that services should be self-financing at a local and regional level. The only exception to this is that, where poor communities are not able to afford basic services, Government may subsidise the cost of construction of basic minimum services but not the operating, maintenance or replacement costs. Such basic service grants will be provided, as far as possible directly to the local authorities or Local Water Committees

Financing and tariff structures must ensure viability, efficiency and sustainability.

CONCLUSION

This White Paper presents both the hard realities of the task before us all as a nation and a vision of what we can achieve. The achievement of our goals is not the job of the Government - it is the job of all sectors of our society, particularly the thousands of communities for whom the policy laid out in this White Paper represents the hope of a better life.

Policy is dynamic. It is created to serve the people and we must continually be reassessing it to ensure that it is performing its role. Comment on this White Paper is welcomed, both now and in the months to come. As our mutual experience grows so will our ability as a nation to meet the needs of all our citizens.