

UNIVERSITY OF THE WESTERN CAPE

FACULTY OF LAW

The use of Groundwater as an option for the realization of the right of access to basic water and sanitation in South Africa.

(A research paper submitted in partial fulfillment of the requirements for the LLM degree in the Faculty of Law, University of the Western Cape)

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Date: 15th May 2004:

Dedication

To

My parents, father Dyandyoki Mgawuli and mother Nolinset Mgawuli, thank you for the support you gave me throughout the programme

To

My sisters, Someka and Xolelwa, the source of my strength in my academic life

And

To all the rural people who are still without basic water and sanitation in South Africa



Declaration:

I Zuko Mgawuli hereby declare that this work is original and the result of my own effort. It has never on any previous occasion been presented in part or whole to any institution or board for the award of any Degree. I further declare that every secondary information used has been duly acknowledged. I am responsible for any error whatever the nature, in this work.

Student

Signed

Date.....

Supervisor

Signed.....

Date.....



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List of abbreviations/ acronyms

APPA	= Atmospheric Pollution Prevention Act
CESCR	= Covenant on Economic, Social and Cultural Rights
CMA	= Catchment Management Agencies
CSIR	= Council for Scientific and Industrial Research
CMS	= Catchment Management Strategies
DG	= Director General
DWA	= Department of Water Affairs
DWAF	= Department of Water Affairs and Forestry
DIWA	= Department of Agriculture and Water Affairs
ECA	= Environmental Conservation Act
ESCR	= Economic, Social and Cultural Rights
EIA	= Environmental Impact Assessment
GG	= Government Gazette
GNU	= Government of National Unity
IGRM	= Integrated Groundwater Resource Management
IRDP	= Integrated Rural Development Programme
LDD	= Law Democracy and Development
NEMA	= National Environmental Management Act
NWA	= National Water Act
NWRS	= National Water Resource Strategy
RDM	= Resource Directed Measures
RQO	= Resource Quality Objectives
RDP	= Reconstruction and Development Programme
RDM	= Resource Directed Measures
SAJELP	= South African Journal on Environmental Law and Policy
SDC	= Source Directed Controls
SDP	= Water Services Development Plans
WB	= Water Boards
WISA	= Water Institute of South Africa
WMA	= Water Management Areas

WRC	= Water Research Commission
WRMF	= Water Resources Management Framework)
WSA	= Water Services Act
WSA	= Water Service Authority
WSAM	= Water Situation Assessment Model
WSDP	= Water Services Development Plans
WSI	= Water Services Institutions
WSP	= Water Service Providers
WUA	= Water User Association



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Abstract

The most contentious issue in the present South African Constitution is the realization of the rights entrenched therein. These rights are contentious because they are justifiable in their nature, subject to judicial processes and courts have in many cases interpreted them to impose positive and negative duties against the state. Positive duty means that it is the state responsibility to ensure that at least something is done (positively) in the realization thereof and negative duty means that the state must refrain from obstructing the functioning of the right. It is often argued against the realization of the rights that the state has limited resources to put rights in reality because for the rights to be realized they require pumping in of resources. In the discussions of the right to sufficient water and sanitation on which this paper is focusing, various factors make this right a little difficult to be realized. These factors include amongst others the scarcity of water resources in the country and the tension between human and environmental needs in the resource utilization. This paper therefore tries to show that the right of access to sufficient water and sanitation must be realized and that the available water resources must be used so that both human and environmental demands do not compromise one another. It is therefore argued that the state has to realize this right, where possible by focusing on groundwater as an option in the realization thereof. The Constitution will therefore form the backbone of this paper. I shall supplement the Constitutional discussion with Policy or Strategy, Legislation and on Ecological (environmental) perspective. This research therefore tries to provide a potential solution to the problems surrounding water resources between humans and the environment in relation to the use of the water a natural resource.



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Key words:

- Constitution
- Policy/ strategy
- Legislation
- Rights
- Water resource
- Groundwater
- Sustainable use of water
- Humans and environmental needs
- Ecological needs



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CHAPTER 1

Groundwater Contribution

1.1. Introduction

1.2. Problem Statement

Groundwater contributes between 45 and 60 per cent of the domestic water supply and 90 per cent of the rural water supply.¹ When the resource is used for human needs, due care must be taken of environmental needs as well. Although groundwater contributes up to a maximum of 97 per cent towards human needs, there still remains a challenge to speed up the delivery of safe water because about eight million rural people are without safe water.² The environment on the other hand requires water for its survival. Despite the recognition of the water needs for the environment in the early 1970's, poor understanding of South African hydrology prevailed when our water law was developed. This is reflected in the different legal rules, which are applied differently in the management of water resources and where different legal status is being given to water resources.³ Groundwater was regarded as private water, subject to private management by owners, and surface water governed by the Department of Water Affairs (DWA).⁴

Human water needs are dependent on the natural environmental functions such as photosynthesis, decomposition of material, recycling of substances, particularly oxygen, nutrients and carbon dioxide.⁵ The concept of water for the environment is defined by Rabie as the minimum water quality and quantity which aquatic ecosystems require for their organisms to survive and for them to be able to perform their normal functions.⁶ Human and environmental needs are interdependent and the function of the one depends on the other. This results in the increased consumption of water for domestic purposes especially in developing countries such as South Africa, in both urban and rural areas. This happens even though most rural communities do not have access to water supply. In some areas large water schemes have resulted in the lowering of the water table, causing wells to dry up. Consequently, those who depend on this resource find it

¹ Water Research Commission, Towards Resources Directed Measures: Groundwater Component (RDM) report, April 2002 (available in www.uwc.ac.za/earthscience)

² Statement by the Minister of DWAF, Mr. R. Kasrils, Effective exploitation of hidden treasure could ensure a better life for all, published 27 November 2000 (available in www.dwaf.gov.za)

³ A. Rabie, Water for the Environment 1998 (61) THRHR at page 111

⁴ J.R. Vegter, Groundwater Development in South Africa and an Introduction to the Hydrogeology of Groundwater Regions. Prepared for the WRC by Vegter (Hydrogeological Consultant) WRC Report No TT 134 June 2001 p- 45

⁵ Rabie (fn 3), Para 3 at p- 112

⁶ Rabie (fn 3), Para 3 at p- 112

difficult to collect water. The over-utilization of water resulted in great difficulties especially to women, specifically in rural areas where women in particular bear the burden of obtaining water.

It must be noted that in the demand for water, both human and environmental needs have an impact on the resource, which has now become deficient. In view of this it is unwise that emphasis should be placed on surface water only as a resource that could bring a better life for all. There exists another reliable resource, a "hidden treasure", which the Minister of the Department of Water Affairs and Forestry (DWAF) indicated as indeed a reliable natural resource for the betterment of the lives of our people. He referred to several areas where this resource is already being utilized. The Minister cited the rural village as an example where the well is widely seen as the source of life and security for the local community.⁷ This resource is groundwater. The value of groundwater therefore has to be recognized, and management mechanisms and enforcement measures be put into place to protect and to prevent damage to this resource. The Constitution is the guiding mechanism in the realization of rights. However, these rights are meaningless unless doors are opened so that people could become aware that they exist, especially people in rural communities. The State must provide the means through which these rights could become reality. In that way the State would be complying with its obligations under the Constitution and with court decisions.

1.3. Objectives

South Africa falls within the category of water deficient countries (i.e. water is scarce). The main objective of this paper is to emphasise concern and to indicate that South Africa's water situation is at a stage where all water resources should be utilized effectively and sustainably. All water resources have to be used and the country should be able to rely upon these resources irrespective of their occurrence in the cycle because reliance on one resource results in scarcity of water resources in general. Moreover, this could result in the neglect of other, alternative resources as reliable resources that could be used to ease the lives of South Africa's people.

Since our water resources are differentiated because of the occurrence in the water cycle (for example surface and groundwater) surface water is predominantly used and has decreased in quantity as well as quality. Human activities such as pollution and global warming have an impact on the resource. This paper tries to explore the possibility of expanding the utilization of groundwater as an option in the realization of the right of access to sufficient water and sanitation in rural communities, also there where groundwater is already often used.

⁷ See statement by the Minister of DWAF, (fn 2)

Moreover, the differentiation of the water resources caused by the previous water laws with regard to their management has resulted in the vulnerability of this resource (groundwater). This research intends to show that all water resources have to be managed, conserved, protected and developed in a holistic and integrated manner so that its utilization could be sustainable and could benefit humans and the environment to the advantage of the present generation as well as future generations in these rural communities.

1.4. Research Methodology

This research will be desk bound; there will be more reading of books, articles, journals, internet websites and case law as well as Government publications.

This research study is based on qualitative and quantitative methods. The qualitative method will help reveal the role players in the delivery of water in safe quality and in what quantity. I considered the qualitative method useful for this study because it would give a wider scope and understanding of the use of groundwater for human and environmental needs. In this sense the qualitative method has great potential to deliver sufficient information. This information will be useful because it will enable me as a researcher to gain more knowledge of groundwater management, protection, conservation and development in relation to the other water resource, surface water. It will also help me to understand the role of the Government in fulfilling its constitutional obligations, particularly towards rural communities. This method will also help me to understand the extent to which water policy, regulations and strategy are applicable in the management of water resources in South Africa.

The qualitative method is important in this study because it will enable me as a researcher to understand the nature of the resource, its importance for human use and its reliability as a source. The research will not be a comparative study of other national legal systems, but will refer to international instruments.

I chose this topic in order to gain experience in the manner in which South Africa's natural resources (water) are governed in relation to their use. I shall formulate a number of specific questions for interviews. These questions will be asked to obtain information needed in the utilization of groundwater. This research will be desk bound, as it will be conducted through reading books, journals, newspaper articles and internet websites. Review of the literature gathered from these different sources will give insight into the need and importance of using groundwater as an option for the realization of rights entrenched in the Constitution, particularly in rural communities.

I shall also use the results of quantitative research in this field. This will provide information about the extent to which groundwater is already utilized, about the impact on the resource as well as about the possibility of increasing the use of groundwater. This information will be related to the number of people who are still without water services. It will also be related to the needs of the environment. In this way I shall be able to use the best available information to base my arguments on.

1.5. Literature Review

Groundwater is a recognized water resource in South Africa. Groundwater is a “precious resource”.⁸ Our National Water Act (NWA) recognizes it as a water resource for the benefit of present and future generations including environmental needs.⁹ Groundwater by its nature is found underground. It can only be utilized once it has been extracted from the ground.

In South Africa, since 1910 and until 1984 the State Boring Services of the Department of Irrigation and Water Affairs (DWA) were responsible authorities for the drilling of groundwater. They were drilling groundwater solely for the purposes of providing water to farmers, local authorities and Governmental departments in the Transvaal region.¹⁰ From 1910 to 1984 there were 125 000 holes of groundwater.¹¹ These holes were drilled during investigations aimed at developing supplies for local authorities and for research purposes.¹² What is important about this time frame is that these boreholes were not only drilled for governmental purposes but for community development in water supplies.¹³ The Enslin commission of enquiry estimated that in 1965 and 1970 respectively about 9 166 and 10 410+ million m³ of groundwater was utilized.⁸ Most important from the

⁸ Ray Schmidt, You are precious resource (available at groundwater@co.portage.wi.us)

⁹ NWA Definition section 1(ii) borehole- includes a well, excavation or any artificially constructed or improved underground cavity which can be used for the purpose of – (a) intercepting, collecting or storing water in or removing water from an aquifer, (b) observing and collecting data and information on water in an aquifer; or (c) recharging an aquifer

¹⁰ Vegter (fn 4) p- 5

¹¹ Vegter (fn 4) p- 5

¹² Vegter (fn. 4) p -5

¹³ Vegter (fn 4) p -5

commission report was the fact that 895 and 1 128 million m³ were obtained from groundwater.¹⁴ It was realized that there was a need for the acceleration in the development and quantitative assessment of groundwater.¹⁵

In 1956 the Water Act did not only focus on the scientific siting but also on assessing the realization of groundwater supplies.¹⁶ In 1966 the Department of Water Affairs instituted a commission of enquiry that found that there was a progressive countrywide drop in groundwater levels and gradual exhaustion of groundwater.¹⁷ The commission also found that, while over-pumping was going on in a number of areas with the resultant steady depletion of stored underground water, the underground resources of the country as a whole were not being fully exploited.¹⁸ The commission concluded that the country had limited natural water resources and had reached a stage where it was becoming of cardinal importance to develop the remaining resources with the outmost care and to utilize them as efficiently as possible.¹⁹ Because of the water resource conditions the commission recommended that there should be effective co-ordination of research conducted by various organizations. The WRC was established as an autonomous statutory body in terms of the Water Research Act 34 of 1971.²⁰ Its function was “to contribute effectively to the best quality of life for the people of South Africa by promoting water research and the application of research findings. Therefore, the WRC endeavours dynamically and purposefully to:

- Promote co-ordination, communication and co-operation in the field of water research.
- Establish water research needs and priorities
- Fund water research on a priority basis
- Promote effective transfer of information and technology.”

The research approach by the Commission was multidisciplinary as spelt out in section 2 (3) of the Act: “research in respect of the occurrence, preservation, conservation, utilization, supply, distribution, purification, pollution or reclamation of water supplies and water, and the use of water for agricultural, industrial or urban purposes”.

¹⁴ Vegter (fn 4) p -12

¹⁵ Vegter (fn 4) p -18

¹⁶ Vegter (fn. 4) p -18

¹⁷ Vegter (fn 4) p -21

¹⁸ Vegter (fn 4) p -21

¹⁹ Vegter (fn 4) p- 23

²⁰ Vegter (fn 4) p -24

Groundwater is part of the hydrological cycle.²¹ Hydrological cycle is described as the sum of global phenomena, although in reality only a small part of the global water traverses the full cycle from the ocean to atmosphere, to land, and back into the ocean.²²

This water is stored underground in rocks and sediments which are capable of storing and transmitting quantities of groundwater aquifers.²³

As a water resource, groundwater must be subjected to the same regulations that regulate the use of water resources in general. Because of the huge demand put on water resources, surface and underground water, the NWA (details discussed in Chapter 3 of this research paper) provides for the creation of Reserve by the Minister²⁴, which is to ensure that the resource is used in an effective manner and does not compromise environmental needs. The NWA acknowledges the Constitutional obligations entrusted to the State.²⁵ Groundwater must therefore be utilized sustainably, conserved, protected and managed in order not to deplete its capacity to function as any other resource.²⁶

The White Paper on Water Policy of 1997 recognizes groundwater as water resource. It does this by providing in principle 5, that in a relatively arid country such as South Africa, it is necessary to recognize the unity of the water cycle and the interdependence of its elements, where evaporation, clouds and rainfall are linked to groundwater, rivers, lakes, wetlands and the seas and where the basic hydrological unit is the catchment.²⁷

It therefore stands to reason that water management, use, conservation and protection be conducted holistically, and that resources could be differentiated depending on their occurrence in the cycle, but should be

²¹ S. Mandel & Z.L. Shifan *Groundwater resources; investigation and development*; Academic Press, INC New York 1981 at page 1

²² Mandel & Shifan (fn 16) p- 1

²³ Peter Beaumont, *Drylands environmental management and development*, New Fetter Lane (London) 1989 at page 28

²⁴ Part 3 section 16 (1) as soon as reasonably practicable after the class of all or part of a water resource has been determined, the Minister must, by notice in the Gazette, determine the reserve for all or part of that water resource

²⁵ NWA, Preamble, recognizing that water is a scarce and unevenly distributed national resource which occurs in many different forms which are all part of a unitary, interdependent cycle; recognizing that while water is a natural resource that belongs to all people, the discriminatory laws and practices of the past have prevented equal access to water, and use of water resources; Acknowledging the National Government's overall responsibility for and authority over the nation's water resources and their use, including equitable allocation of water for beneficial use, the redistribution of water, and international water matters; Recognising that the ultimate aim of water resource management is to achieve the sustainable use of water for the benefit of all users; Recognising the need for the integrated management of all aspects of water resources and, where appropriate, the delegation of management functions to a regional or catchment level as to enable everyone to participate;

²⁶ NWA sec 2 (d)

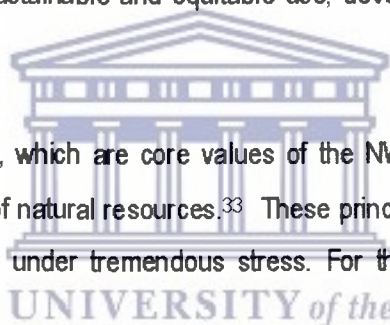
²⁷ White Paper on National Water Policy of 1997 in a relatively arid country such as South Africa, it is necessary to recognize the unity of the water cycle and the interdependence of its elements, where evaporation, clouds and rainfall are linked to groundwater, rivers, lakes, wetlands and the seas and where the basic hydrological unit is catchment

managed in an integrated manner. Moreover principle 9 provides that the quantity, quality and reliability of water required for maintaining the ecological functions on which humans depend, shall be reserved so that the human use of water does not individually or cumulatively compromise the long-term sustainability of aquatic and associated ecosystems.²⁸

1.6. Application

South African water laws and policy are clear on the utilization of groundwater. Groundwater is used for both human and environmental needs. What the position of the law as far as the use of groundwater is concerned? The answer to the question should be traced to the principles that govern the utilization of natural resources, the principle of sustainable utilization found in the National Environmental Management Act (NEMA) 107 of 1998, which is the guiding piece of legislation in the utilization and exploitation of natural resources.²⁹ Groundwater should be utilized for both human and environmental needs in a sustainable manner.³⁰ The NWA in its preamble provides for the sustainable and equitable use, development, conservation, management and control of water resources.³¹

These are fundamental principles, which are core values of the NWA.³² The principles of sustainability and equity are central in the use of natural resources.³³ These principles are prominent in this paper because the resource that we all share is under tremendous stress. For that reason we must use it optimally and



²⁸ White Paper, principle 9; quantity, quality and reliability of water required to maintain the ecological functions on which humans depend shall be reserved so that the human use of water does not individually or cumulatively compromise the long term sustainability of aquatic and associated ecosystems

²⁹ NEMA sec 3, development must be socially, environmentally and economically sustainable

³⁰ Principle 9 White Paper on National Water Policy

³¹ Chapter 1- this chapter sets out the fundamental principles of the act. Sustainability and equity are identified as central guiding principles in the protection, use, development, conservation, management and control of water resources. These guiding principles recognize the basic human needs of present and future generations, the need to protect water resources, the need to share some water resources with other countries, the need to establish suitable institutions in order to achieve the purpose of the Act. National Government, acting through the Minister, is responsible for the achievement of these fundamental principles in accordance with the constitutional mandate for ultimate responsibility to fulfil certain obligations relating to the use, allocation and protection of and access to water resources.

³² Robyn Stein, SA New Democratic Legislation: *National Government's Role as Public Trustee in Dam Building and Management Activities*. This article is available at www.dwaf.pwv.gov.za

³³ NWA Preamble NWA, Preamble, recognizing that water is a scarce and unevenly distributed national resource which occurs in many different forms which are all part of a unitary, interdependent cycle; recognizing that while water is a natural resource that belongs to all people, the discriminatory laws and practices of the past have prevented equal access to water, and use of water resources; Acknowledging the National Government's overall responsibility for and authority over the nation's water resources and their use, including equitable allocation of water for beneficial use, the redistribution of water, and international water matters; Recognising that the ultimate aim of water resource management is to achieve the sustainable use of water for the benefit of all users; Recognising the need for the integrated management of all aspects of water resources and, where appropriate, the delegation

sustainably, and take into account the needs of future generations and the future development of the environment.

1.7 Analysis

The physical dynamics of the available resource confirm that the available water is under severe stress to provide in the needs of humans and the environment. Researches from a legal perspective suggest that this stress is caused by pollution and contamination of reserves³⁴ and scientific perspective suggests that chemicals not normally present in the natural system can also have dire consequences. The resource is vulnerable to poisoning by toxic substances such as heavy metals (lead, zinc, and cadmium), acids, solvents or chlorinated organic compounds produced by mining, smelting and manufacturing industries.³⁵

It therefore calls for legal response and scientific analysis; the laws regarding usage are to be strengthened to benefit the present generation and future generations.

Because of the past Apartheid laws, which denied vast sectors of the population access to basic resources, including water,³⁶ rural areas have been and are still without access to basic water resources.

Having regard for the fact that the country's water resources are limited and vulnerable, steps have been done by the Government to improve the quality of life of rural communities. South Africa's new democratic dispensation re-shaped our water legislation. With the introduction of the NWA in 1998, water laws were viewed against the principles of the Constitution.

The Constitution laid the foundation for the right of every citizen to have access to sufficient food and water.³⁷ The Constitution furthermore imposes a duty upon the State to progressively realize these rights, to take them seriously and to put them into practice. It provides that the State must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.³⁸

³⁴ Ricardo Petrella, *The Water Manifesto Argument for a World Water Contract*, David Philip Publishers (Pty LTD) 208 Wedmuller Centre, Claremont 7735, South Africa, 2001 page 19

³⁵ Contributed by Colin Reginald; *Pollution, Microsoft Encarta World Atlas 1998 Edition*

³⁶ Glazewski; *Environmental law in SA*, Butterworths, Durban 2000 Page 509

³⁷ Constitution of the Republic of South Africa Act 108 of 1996; Sec 27 (1) (b),

³⁸ Constitution of the Republic of South Africa Act 108 of 1996; Sec 27 (2)

It has been accepted that the legal nature of these rights is justifiable and that all human rights are indivisible and because of their indivisibility they put some obligations upon the State.³⁹ This means that the State has to provide the basic rights because each right depends on the other for its realization.

In the context of rural areas to which this paper is drawing attention, about eight million people are still without access to safe water. This implies that a huge number of people in the rural areas are being denied a constitutional right. Particularly women in these areas feel the burden, because they are mainly those who have to walk long distances and carry heavy loads.⁴⁰ Women play a very important role in the water management in these areas; they are the ones who know where water is to be found in their respective areas, how reliable the source is and what the quality of the water is.⁴¹

In addressing the problems concerning the use of water, certain principles are applicable: the principles of basic access to water and sanitation for every human being and every community (an inalienable political, economic and social right) at once individual and collective and the principle of integrated sustainable management in keeping with principles of solidarity (duty of individual and collective responsibility) to other communities and the world's population to other human communities, to future generations, and to the ecosystem, earth, the principle of sharing and conservation and protection of water should guide service delivery⁴². Groundwater is a limited resource too, and the risk of contamination should be taken into account when developments are planned.⁴³ To achieve optimal utilization of water resources the State must act reasonably to protect the environment by preventing pollution, promoting conservation, and securing sustainable development, while building the economy and society⁴⁴. To ensure that the Government takes reasonable decisions to protect the environment, it should be insisted upon that the Government follow transparent (open) and reasonable procedures.⁴⁵ The two fundamental rights entrenched in the Constitution to ensure this, ⁴⁶ are:

- (a) The right of access to information (s 32, and
- (b) The right to just administrative action (s33).

³⁹ T.P. Van Reenen, *Rights of access to Water and Basic Sanitation Services; rights to Pollution Prevention and Waste Control and Management: A Southern African Perspective*, unpublished manuscript 2003, page 1

⁴⁰ A. Rodda, *Women and the Environment*, United Nations Non- Governmental Liaison Service, 1991 page 51

⁴¹ Rodda (fn 30) p-51

⁴² Petrella (fn33) p- 111

⁴³ Jacklyn Cock and Eddie Koch, *Going Green; people, politics and the environment in South Africa*; Oxford University Press Cape Town 1991 at page 131

⁴⁴ Sandra Liebenberg & Karrisha Pillay, *A Resource Book on Socio-economic Rights in South Africa*, The Socio-economic Rights Project, Community Law Centre (University of the Western Cape) South Africa, 2000 at page 137

⁴⁵ Sandra Liebenberg & Karrisha Pillay (fn 44) p- 137

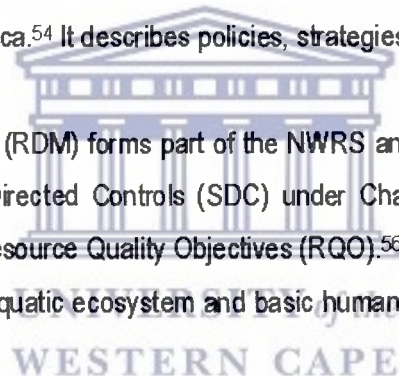
⁴⁶ Sandra Liebenberg & Karrisha Pillay (fn 44) p -137

The realization of each right in the Constitution applies horizontally and vertically (between the State and legal subjects and between subjects).⁴⁷ The application of the Bill of Rights implies that the nature of this right (water) is at a stage where it is deficient. A more practical approach to water management would be to bring water management to the people.⁴⁸ People must also take responsibility⁴⁹ in ensuring that groundwater is protected from pollution and contamination.

For the people to participate and take responsibility in issues concerning water utilization, water should be managed at local level because experience around the world proves that local management is essential to sustainable exploitation and solving scarcity problems of water resources.⁵⁰

In the context of water, the Minister⁵¹ must, as soon as reasonable practicable, by notice in the Government Gazette, establish a National Water Resource Strategy (NWRS). Since 2002 there were proposals to the NWRS. In a statement the Minister of DWAF said water gave life.⁵² He added that it was the task of South African Government to take care of water, to seek its fair distribution and to facilitate its wise use for, amongst others, social and economic development.⁵³ The NWRS sets out ways to achieve Integrated Water Resource Management (IWRM) in South Africa.⁵⁴ It describes policies, strategies, plans, and procedures by which this will be done.⁵⁵

The Resource Directed Measures (RDM) forms part of the NWRS and forms the main groundwater protection mechanism, along with Source Directed Controls (SDC) under Chapter 3 of the NWA. The RDM includes Classification, the Reserve and Resource Quality Objectives (RQO).⁵⁶ The Reserve aims to protect the quantity and quality of water required for aquatic ecosystem and basic human needs.⁵⁷ Because groundwater has, in a



⁴⁷ Sec 8 (2), A provision in the Bill of Rights binds a natural or juristic person if, and to extent that, it is applicable, taking into account the nature of any duty imposed by the right

⁴⁸ Jacklyn Cock and Eddie Koch (fn 43) p- 138

⁴⁹ Jacklyn Cock and Eddie Koch (fn 43) p- 138

⁵⁰ David B. Brooks, *Focus on water Local Management*, International Development Research Center (IDRC), Canada 2002 page 5

⁵¹ NWA sec 5 (1)

⁵² R. Kasrils, Introduction to the NWRS, August 2002 page 1

⁵³ Kasrils (fn 52) p -1

⁵⁴ NWA Chapter 2 part 1, part 2 requires progressive development, by the Minister, after consultation with society at large, of a national water resource strategy. The national water resource strategy provides the framework for the protection, use, development, conservation, management and control of water resources for the country as a whole. It also provides the framework within which water will be managed at regional or catchment level, in defined water management areas. The national water resource strategy, which must be formally reviewed from time to time, is binding on all authorities and institutions exercising power or performing duties under this Act

⁵⁵ Kasrils (fn 52) p-2

⁵⁶ EC Murray and G Tredoux, Water Programme; Council for Scientific and Industrial Research (CSIR) Pilot Artificial Recharge Schemes: final report to the WRC. CSIR Report No. ENV-SC 2002 -001, WRC Project No. 967/1/02, ISBN No. 186845 883 0, July 2002 page 11

⁵⁷ EC Murray and G Tredoux (fn 56) p -11

sense, been out of sight and out of mind⁵⁸, rules managing groundwater were also out of sight and out of mind. Rules were only applicable to surface water. The demands placed on surface water led to the development of rules. These rules then assumed application to groundwater alike.⁵⁹ This has resulted in a regime for groundwater that is crude, especially given groundwater's abundance and vulnerability relative to surface water.⁶⁰

The vulnerability of groundwater is caused by many factors such as the lack of full understanding or awareness of the characteristics and extent of groundwater⁶¹ and a lack of awareness of the physical interrelationship between surface and groundwater.⁶² However, it is perhaps the fact that groundwater is invisible that leads to the lack of attention to this critical and comparatively vast resource.⁶³

The constitutional mandate has to be progressively realized by the State.⁶⁴ This obligation is entrusted to all organs of state in that all spheres of government and organs of state must secure the well-being of the people of the Republic.⁶⁵ This provision means that there is no sphere of government that can escape the general responsibility of realizing socio-economic rights.⁶⁶ The Constitution imposes four different types of obligations in section 7 (2) for the realization of fundamental rights, the obligation to *respect, protect, promote and fulfil*⁶⁷. The obligation to respect means that the State must refrain from interfering with the use and enjoyment of the right. The obligation to protect refers to the obligation that the State must prevent the violation of the right by third parties. To promote means that the State must encourage and advance the realization of these rights.⁶⁸

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⁵⁸ Stephen C. Mc Caffrey, *The Law of International Watercourses Non- Navigational Uses* Great Clarendon Street, Oxford ox26DP, New York, 2001 page 414 (Yet groundwater has been largely 'out of sight and out of mind' in the practice of states, and albeit to a lesser extent, in the work of international organizations and expert groups)

⁵⁹ Stephen C. Mc Caffrey (fn 58) p-414 – up to this point the discussion of fundamental obligations in respect of international watercourses has assumed that the same rules apply to surface water and groundwater alike.

⁶⁰ Stephen C. Mc Caffrey (fn 58) p-415

⁶¹ Stephen C. Mc Caffrey (fn 58) p-415 – the reasons for this have to do with the negative synergy produced by several factors: the lack of full understanding or awareness of the characteristics and extent of groundwater, the rather embryonic nature of the law in this area, which is in part a consequence of the first factor; the very fact that groundwater is internationally shared, meaning that without some form of cooperative arrangement, it is subject to two or more different domestic regulatory regimes; and the phenomenon of the tragedy of the commons;

⁶² Stephen C. Mc Caffrey (fn 58) p 417, This appears to be in large part because states have until recently been largely unaware of the physical interrelationship between surface and underground water.

⁶³ Stephen C. Mc Caffrey (fn 58) p 417

⁶⁴ Sec 27 (2) the State must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.

⁶⁵ Sec 41 (1) (b), All spheres of Government and all organs of state within each sphere must- secure the well being of the people of the Republic.

⁶⁶ J De Visser & Others, *Realising the Right of Access to water. Pipe Dream or Watershed*, LDD 7 (1) 2003, paragraph 1 page 28

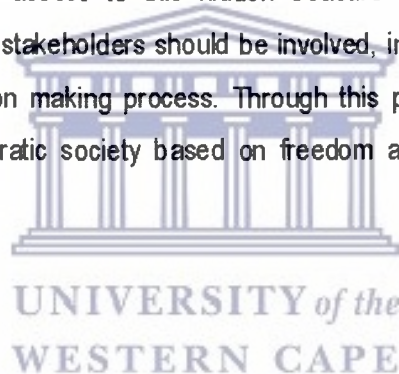
⁶⁷ Sec 7 (2) the State must respect, protect, promote and fulfil the rights in the Bill of Rights.

⁶⁸ J De Visser & Others (fn 66) p- 28 -29

Water is a socio-economic right; it therefore means that it is the responsibility of the State to ensure that it takes measures that will ensure that groundwater is supplied to rural communities and is protected from any form of contamination. The State has to ensure that it encourages the public to optimal utilization of water through the promotion of the right, which includes public awareness.

The basic question, however, is how to ensure that those people in the rural areas do get access to these basic services guaranteed to them by the Constitution, taking into account that all has do be done within limited resources available and the scarcity of the resource. What can the law do in addressing the problems faced by our rural communities? Are they expected to suffer, and, if so, until when? Or do we just pause and say there are not enough resources available to provide them with basic access to water and sanitation.

It is in my opinion that South Africa's hidden resource should be utilized, protected, developed, remedied where damage has occurred, and conserved, and that precautionary steps should be taken to better these people's lives. The State should provide access to this hidden treasure by providing means within its available resources. Moreover, all relevant stakeholders should be involved, including the rural people. They should be allowed to partake in the decision making process. Through this process, projects must be guided by the principles that underlie a democratic society based on freedom and equality and without race or gender qualifications.



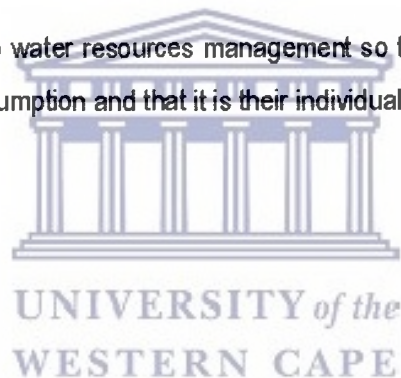
1.8. Proposed Solutions

1. Concerning the problems identified about our natural resources, namely that they are scarce, vulnerable and not normally utilized optimally, this research proposes, amongst others, that the Government, where possible, at least drill more boreholes for rural communities. These boreholes should be subjected to and regulated in terms of the current water laws, the NWA specifically.
2. There is a need to monitor the use of water resources in order to balance the needs of the ecosystem.
3. The economic value of water must be brought home to people so that they realise the economic value of water. When water is pumped from boreholes and distributed equally to the communities, incentives could be introduced, as such incentives would ensure cost effective management of the resource. By making them pay,

they would start realizing how precious water is. As soon the Government fulfils its constitutional obligation by providing access (drill more boreholes), the fiscal incentives should be introduced at rates taking into account the social and economic conditions of the rural people. In this way the communities would become aware that water was no longer a gift from God, but had an economic value and should be used as such. In this way the environment may be protected as well, as it depends on the same resource for its natural functions. It is proposed that this would eventually contribute towards resolving the problem around the use of water in dry rural areas.

4. The extraction of groundwater should, where possible, be given priority in providing access to basic and sufficient water. This process should be speeded up because statistics indicate a very high number of rural people without sufficient water (eight million). The Constitution should guide the process to the extent that the Government has the responsibility to provide means for the extraction of groundwater and educate people so that they understand the vulnerability and scarcity of water resources.

5. Awareness could be brought to water resources management so that people understand the environmental consequences of their water consumption and that it is their individual and collective responsibility to protect the environment.



1.9. Dissemination of research results

The research results will form the content of this research paper. It is also intended that this paper be submitted for publication in an accredited journal. Through my anticipated participation in conferences, seminars and workshops this research will be brought to public attention.



CHAPTER 2

Groundwater: A historical perspective

2.1. Background of the study

Scarcity of water resources in SA is becoming a mounting problem, which has a serious impact on the lives of people and the natural functioning of the environment. Because human needs must be given priority over environmental needs, the utilization of water resources has become a concern of the Government, academics and all relevant activists, especially those fighting for the rights of the natural environment. There is a need therefore that the utilization of water resources be balanced against human and environmental needs for the effective and optimal utilization of water resources. The study also sets out to ascertain whether the use of groundwater as a water resource in the realization of the right of access to basic water and sanitation could be an option in saving the country's scarce water resources. Also, in order to protect the environmental needs, water laws should aim at protecting groundwater against human impacts such as pollution that cause it to become less fit for its intended use.

In addition to over-utilization of water resources, many people suffered hardships because of Apartheid laws, which denied the vast majority of South Africans basic rights. However, the new Government has implemented laws that will take all water resources as national resources for human needs also to the benefit of future generations.

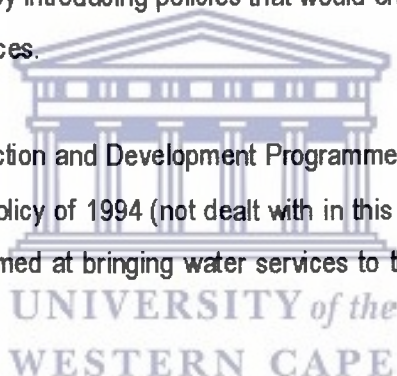
Scientific research conducted in the past years on the utilization of groundwater suggests that it is necessary that groundwater should be utilized in the rural communities. The WRC in 1998 conducted research in groundwater development for rural areas and found that there were several benefits in the utilization of groundwater for rural communities. Among them were health benefits, as opposed to the situation that existed where humans induced pollution in water supplies from dams, for example.⁶⁹ Another advantage of groundwater over surface water for human needs in rural communities is that it is difficult to put infrastructure in

⁶⁹ K. Sami & EC Murray, *Guidelines for the Evaluation of Water Resources for Rural Development with an Emphasis on Groundwater*, Report to the Water Research Commission by the Institute for Water Research Rhodes University; WRC Report No 677/1/98 page 2.2.

place for water services. In other words building dams in these communities requires huge amounts of money and long pipelining systems; whereas supplying groundwater is less expensive because drilling a borehole does not need long pipelines. It is therefore clear that extracting groundwater is economically viable.⁷⁰ A borehole could be drilled in or close to the community. At the same time groundwater does not need any treatment like surface water because groundwater is naturally protected by geological formations and rocks.⁷¹ Compared with other methods of collecting water such as the rooftop water harvesting and field water harvesting currently used in some rural areas, groundwater could be safer for all uses.⁷²

Care should however be taken how the available groundwater is utilized. Attention should be paid to mechanisms that would ensure that the available water is protected and conserved and used effectively. Care should be taken that groundwater utilization by the community does not have a negative influence on the natural functioning of the environment. All water consumers --agricultural, industrial and domestic -- should be obliged to take into account environmental needs and protect the environment. Since 1994 the South African Government has taken initiatives by introducing policies that would ensure that every South African has access to basic water and sanitation services.

The introduction of the Reconstruction and Development Programme of 1994, known as RDP, followed by the White Paper on National Water Policy of 1994 (not dealt with in this paper as it was superseded by the 1997 White Paper, dealt with below) aimed at bringing water services to those people who were previously denied their basic right to water.



⁷⁰ Interview with Professor Yongxin Xu, Lecturer at UWC, UNESCO Professor in Hydrogeology Department of Earth Sciences, 13 April 2004

⁷¹ Interview with Professor Yongxin Xu

⁷² Interview with Professor Yongxin Xu

2.2 Policy Dimension

2.2.1. Political Economy of Water in South Africa

South Africa is a water-deficient and drought-prone country because of unfavourable and unpredictable climatic conditions.⁷³ Other factors contributing to the scarcity of water resources are the rapidly escalating population numbers, industrialization and the need to redress past socio-economic and gender imbalances, in ensuring the need that the quality of the water available for South Africa is kept to an optimum.⁷⁴ Apart from the imbalances caused by the Apartheid system, DWAF has been given custody of the nation's water resources to ensure that water resources remain fit for recognized water users and that the viability of aquatic ecosystems is maintained and protected.⁷⁵ Legally South African water resources had been divided into public and private water with its roots in Roman law.⁷⁶ The legal differentiation of water resources resulted in difficulties in the management and regulation of water resources. Moreover, it resulted in the vast majority of South Africans being denied the right of access to basic water and sanitation services. Under the new democratic Government, water laws inevitably had to be changed.⁷⁷ The Government was faced with a situation in which the majority of South Africans were excluded from owning land and were denied direct access to water for productive use.⁷⁸ Since the introduction of the new constitutional dispensation everyone has a right to access to water and sanitation.⁷⁹ As the starting point with the realization of the right of access to water and sanitation, a new policy dimension was introduced. These policies include amongst others the Reconstruction and Development Programme and the White Paper on a National Water Policy for South Africa, which came into effect in 1994. Since their introduction there were developments in the policy dimension, the White Paper on Water Supply and Sanitation of 1996 and 1997 and The White Paper on Energy Policy of 1998. These policies were aimed to deal with delivery of services such as water and sanitation, housing and other basic services and to redress the problems created by Apartheid.

Though a new policy dimension has been introduced in South Africa for the purpose of providing access to the country's wealth of natural resources, there are still burdens placed upon natural resources. Ignorance of the

⁷³ Glazewski (fn 36) p- 759

⁷⁴ Glazewski (fn 36) p- 759

⁷⁵ Glazewski (fn 1) p- 759

⁷⁶ BC Sloop; *The Law of South Africa First Reissue, Traffic to Water*, volume 30 Butterworths at page 245

⁷⁷ Vegler (fn4) p- 44

⁷⁸ Vegler (fn 4) p 44

⁷⁹ Sec 27 (1) (b)

environmental costs of industrialization over the past centuries has frayed the ecological fabric to an extent that productive activities have been disruptive and people displaced, adding up to deteriorating activities affecting the environment⁸⁰ Secondly, political arrangements on national and international levels have often disregarded the importance of distributing wealth equitably so that a staggering portion of humanity lives at the very edge of survival, shrouded in poverty and deprived of viable alternatives and options.⁸¹

South Africa too, could not escape these neglects.⁸² Moreover, South Africa suffers from water scarcity and faces incidents of pollution in an energy intense economy. The country is facing serious pressure to adopt new measures to incorporate environmental costs, eliminate unreasonable profit at the expense of natural resources, and establish a new rationality for using and distributing natural resource wealth.⁸³

In 2002, South Africa hosted a World Summit. The idea of the South Africa Government's taking part in the summit was to deal with issues that confronted the country as it emerged from the reign of Apartheid. The main idea though, was to address the issues of poverty eradication and drive towards sustainable development.⁸⁴ Evidence of this challenge is the current statistics of people who are without access to safe, clean water. These statistics show that water and sanitation services should be accelerated drastically.⁸⁵ Despite the constitutional mandate, the South African economy faces serious financial constraint that obliges policy makers and the public to make difficult decisions among competing priorities.⁸⁶ The provision of the right of access to basic water and sanitation is hindered by many constraints. South Africa is a developing country and needs more investors to come and invest in the country. These investors are key cornerstones to the building of the economy and fighting poverty through the creation of jobs for the population. They at the same time are among the main pollutants of natural resources. The question is whether we should focus on investments⁸⁷ and forget about natural resources being threatened and destroyed. How could Government resources be best utilized to accelerate the redistribution of productive land to the rural poor?⁸⁸ How should the Government and local water users establish fees to cover the real costs of water while ensuring that access to potable water is

⁸⁰ D. Reed & M. de Wit (5 ed) *Towards A Just South Africa; The Political Economy Of Natural Resource Wealth*, published by CSIR Pretoria SA, 2003 at page 5

⁸¹ Reed & M. de Wit (fn 80) p- 5

⁸² Reed & M. de Wit (fn 80) p- 5

⁸³ Reed & M. de Wit (fn 80) p- 5

⁸⁴ Reed & M. de Wit (fn 80) p- 6

⁸⁵ Reed & M. de Wit (fn 80) About 8 million people are still lacking these basic services) p- 6

⁸⁶ Reed & M. de Wit (fn 80) p- 6

⁸⁷ Reed & M. de Wit (fn 80) p- 6

⁸⁸ Reed & M. de Wit (fn 80) p- 7

becoming a reality to millions of rural and urban poor?⁸⁹ In addition to these difficult decisions, South Africa as a country that is part of the international economy had to address these matters in relation to international economic pressures that often compete with the urgency of taking care of international priorities.⁹⁰

However, the South African Government is striving towards dealing satisfactorily with these issues. This is evident in recent policy changes in natural resource management. Natural resources are being taken seriously because it is realised that access to and use of natural resources will fundamentally shape the contours of the country's society in decades to come.⁹¹ As these changes are taking place, the complex dynamics between the economic and political realms of South African society have become evident.⁹² When dealing with natural resources, we are actually dealing with the economy of the country because the value of natural resources is equated to economic value, the lives of people and politics. When policies are formulated, the authorities have to take into account the different dynamics that lie at the centre of the distribution of resource wealth, specifically the question of who benefits from the distribution of the country's natural resource wealth.

The restructuring of policy objectives by the Government regarding natural resources in general changes the understanding of natural resources, also as far as water is concerned. Through the new policies people are empowered, socially and politically. However, economic empowerment of historically disadvantaged South Africans is a very powerful policy change driver.⁹³ It is significant in this study to look at the status of all natural resources related to water because if natural resources were, for instance, left exclusively in private ownership the risk might arise of the broader community being denied access. The policy objectives provide for a pace at which resource wealth has to be distributed to the benefit of poor communities -- by diversifying the means of resource supply in which all sectors of the community have to participate in the decision-making process and the attribution of outside cost to natural resources. The ability of the Government to provide access to

⁸⁹ Reed & M. de Wit (fn 80) p- 7

⁹⁰ Reed & M. de Wit (fn 80) p- 7

⁹¹ Reed & M. de Wit (fn 80) p- 13

⁹² Reed & M. de Wit (fn 80) p- 13

⁹³ Reed & M. de Wit (fn 80) John Basson; *Energy Policies and Practices* at page 33, Objectives of the White Paper on Energy Policy of 1998 includes -Increasing access to affordable energy services, especially for disadvantaged households, small farms and community services, Improving energy governance, including regulation and sound co-ordination between Government departments, bodies and levels of Government, Stimulating economic development, also by means of increase competition in the energy sector, cost reflectivity of tariffs and energy prices. Where subsidization is required, this should be for sound reasons and be transparent, Managing energy- related environmental and health impacts, including access to basic energy services for poor households, the inclusion of quantifiable externalities in energy prices, targets for energy-related emissions and creating a balance between using fuels and the maintenance of acceptable environmental requirements, Securing the supply of energy through diversity by means of increased regional trade and primary energy carries.

resources is not stated very directly. It is acknowledged that the ability to provide is the process which must be progressively realised by improving the governance of natural resources. In the water context, new definitions of responsibilities and concepts came out. The National Government has a responsibility to provide access to basic services within its available resources progressively.⁹⁴ A new broad definition of water use emerged.⁹⁵ The provision for equitable access to water and the benefits of water use emerged.⁹⁶ New institutional structures and mechanisms for developing decision-making down to the lowest possible level also accrued in the process.⁹⁷ The provision for ensuring ecologically sustainable development and use of water resources was formalised.⁹⁸ The introduction of new economic instruments and new water pricing provisions also entered the water management arena.⁹⁹

The principles of equitability and sustainability are key issues in the discussion of the right of access to basic water and sanitation, because past laws left many South Africans without these basic services. Also, a natural resource, in this case water, is under enormous pressure. The National Environmental Management Act (NEMA) of 1998 pays close attention to the protection of natural resources.¹⁰⁰ Sustainability of natural resource exploitation requires the striking of a balance between social, economic and environmental imperatives in order to find an appropriate balance.¹⁰¹ It is therefore the National Government's responsibility to ensure that this objective is achieved at best level of performance. Its functions include:¹⁰²

- Policy formulation and regulation
- Development and maintenance of a national water resource strategy, which sets out the long-term goals and objectives for water management at national level
- Joint management of international catchments
- Develop a catchment management strategy, which must be consistent with the national water resource strategy

⁹⁴ Sec 27 (2), Act 108 of 1998

⁹⁵ NWA, sec 21 (a) – (f)

⁹⁶ Sec 9 (2) *Equality includes the full and equal enjoyment of all rights and freedoms. To promote the achievement of equality, legislative and other measures designed to protect or advance persons, or categories of persons, disadvantaged by unfair discrimination may be taken*

⁹⁷ NWA Chapter 7; the purpose of establishing Catchment Management Strategies is to delegate water resource management to the regional or catchment level and to involve local communities

⁹⁸ Sec 27 (b) (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development

⁹⁹ Chapter 5 of NWA (Financial provisions)

¹⁰⁰ Sec 4 (b) of NEMA provides that environmental management must be integrated, acknowledged taking into account that all elements of the environment are linked and interrelated and it must take into account the effects of decision on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option

¹⁰¹ Reed & M. de Wit (fn 80) H Mackay *Water Policies and Practices* at page 61

¹⁰² Reed & M. de Wit (fn 80) H Mackay *Water Policies and Practices* at page 61

- Management of water resources and co-ordination of water-related activities of water users and other water management institutions in the Water Management Areas (WMA).
- Setting and collection of water use charges
- Allocation of water within the limits set by National Government (25 litres per day per person within 200 meters distance)

These are fundamental principles and functions that are aimed at poverty alleviation. They aim at preventing the distortions created by past laws, and realization is subject to the principle of co-operative governance because all spheres must work together to achieve positive results of service delivery. However, the National Government has a sole responsibility in creating a platform for the rights to be realised. It has to do this with the assistance of the provinces and local government. The provincial sphere also has to assist at local level by supporting local authorities financially to realise rights.

2.2.2. Reconstruction and Development Programme

The Reconstruction and Development Programme (RDP) is an integrated, coherent socio-economic policy framework.¹⁰³ This programme seeks to mobilize all people and South Africa's resources towards eradicating the results of Apartheid and building a democratic, non-racial and non-sexist future.¹⁰⁴ As an integrated coherent socio-economic policy framework it strives towards a process of transformation that ensures that the country develops strong and stable democratic institutions and practices characterized by representativeness and participation. In particular, it strives that the country becomes a fully democratic and non-racial society and a prosperous society, having embarked upon a sustainable and environmentally friendly growth and development path.¹⁰⁵

RDP is essential because it focuses on many crucial aspects that face South Africa. More importantly it deals with the discrimination caused by past laws against especially the rural population, who were marginalized. Rural areas were divided into underdeveloped Bantustans as opposed to the well-developed, white-owned commercial farming areas.¹⁰⁶

¹⁰³ White Paper on RDP, Government's Strategy for Fundamental Transformation September, 1994 page 4

¹⁰⁴ White Paper on RDP (fn 103) p- 4

¹⁰⁵ White Paper on RDP (fn103) p- 4

¹⁰⁶ White Paper on RDP (fn 103) p-5

It is accepted that water scarcity is a global crisis that threatens to undermine economic growth and attempts at poverty reduction.¹⁰⁷ Lack of safe drinking water and adequate sanitation is already a major problem for much of the world's population and the pollution of lakes, rivers and groundwater poses a further threat.¹⁰⁸ The existing models of economic growth that rely too heavily on finite resources and which result in too much pollution are not compatible with sustainable development.¹⁰⁹

South Africa, in addressing the needs of its people through the RDP, took a step forward.

The five key programmes envisaged in the RDP Base Document are meeting the basic needs, developing human resources, building the economy, democratizing the state and society, and implementing the RDP.¹¹⁰ In meeting the basic human needs, people should become part of the decision-making process of job creation, land reform, housing, services, water and sanitation.¹¹¹ They should therefore help to decide where infrastructure should be located, be employed in its construction, and be empowered to participate in the management and administration of large-scale developments.¹¹² The underlying approach of the RDP is that education and training should be available to all.¹¹³ This approach is further illustrated by the Constitution, which gives every sphere of government a functional area that will ensure that the Government meets the basic needs in both urban and rural development.¹¹⁴ The National Government must set the broad objectives and, together with the provincial and local governments, provide a policy and regulatory framework to facilitate implementation at provincial and local level.¹¹⁵ In terms of the provisions of the RDP local authorities are the level of government where service delivery is to take place. Their responsibility includes the restoration and upgrading of services where they have collapsed, and extending services to new areas where there was no service delivered before the Government of National Unity (GNU) came into power.¹¹⁶ It also provides for rural water provision, and aims to support the provision of water and sanitation to rural areas. Underlying the RDP commitment to household access to water and sanitation was its depiction as a human rights issue.¹¹⁷ The

¹⁰⁷ Author anonymous, *Our Future, our Choice*, Environmental Directorate- General, European Commission, <http://europa.eu.int/comm/environment> at page 9

¹⁰⁸ *Our Future, our Choice* (fn 107) p- 10

¹⁰⁹ *Our Future, our Choice* (fn 107) p-7

¹¹⁰ White Paper on RDP (fn 103) p- 7

¹¹¹ White Paper on RDP (fn 103) p- 8

¹¹² White Paper on RDP (fn 103) p- 8

¹¹³ White Paper on RDP (fn 103) p- 8

¹¹⁴ Schedule 4 and 5

¹¹⁵ White Paper on RDP (fn 103) p- 12

¹¹⁶ White Paper on RDP (fn 103) p-22

¹¹⁷ Patrick Bond & Meshack Khosa RDP Policy Audit;

right to water is considered in the Water Supply and Sanitation Policy White Paper (discussed below).¹¹⁸ This right is strengthened by the Constitution¹¹⁹ and through the provisions of the Water Services Act of 1997 (WSA),¹²⁰ which marked a historic venture as it took a step forward in water service delivery.

The WSA provides for the right to water and sanitation as the human right to:

(a) Basic sanitation

The minimum standard for basic sanitation services is -

- (a) The provision of appropriate health and hygiene education; and
- (b) A toilet which is safe, reliable, environmentally sound, easy to keep clean, provides privacy and protection against the weather, well ventilated, keeps smells to a minimum and prevents the entry and exit of flies and other disease-carrying pests.

(b) Basic water supply

The minimum standard for basic water supply services is –

- (a) The provision of appropriate education in respect of effective water use, and
- (b) A minimum quantity of potable water of 25 litres per person per day or 6 kilolitres per household per month
 - (i) At a minimum flow rate of not less than 10 litres per minute;
 - (ii) Within 200 metres of a household, and
 - (iii) With an effectiveness such that no consumer is without a supply for more than seven full days in any year.

During the RDP process, the key problem was the definition of a “lifeline” amount of water to be provided to consumers which could also sustain rural projects.¹²¹ This was addressed through the adoption of the WSA, which provided that 25 litres be allocated per person per day or 6 kilolitres per household per month.¹²² WSA relates more to the building of infrastructure such as dams. Technical aspects arise, for example the structure of villages requires more pipeline system to be laid, which is expensive. Also, water has to be treated after the completion of pipelines, dams etc.¹²³

¹¹⁸ Principle 2 Water Supply and Sanitation Policy White Paper of 1994, *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.

¹¹⁹ Section 27 (1) (b)

¹²⁰ Sec 2 (a) (b), 3 (1) (a) (b) (i) (ii) (iii)

¹²¹ Patrick Bond & Meshack Khosa (fn 94) p- 14

¹²² Sec 3 (b) *minimum quantity of potable water of 25 litres per person per day or 6 kilolitres per household per month*

¹²³ Professor Yongxin Xu, interview (fn 70)

2.2.3. White Paper on National Water Policy for South Africa of 1997

Preceding the coming into effect of the White Paper on National Water Policy, water was given its constitutional meaning. Water has to restore human dignity, give life and be shared equitably by all South Africans. The celebrated journalist and poet Antjie Krog¹²⁴ writes in an article in which she refers to a poem written by a poet, Mazisi Kunene, who once said, "From water is born all peoples of the earth. There is water within us, let there be water with us. Water never rests. When flowing above, it causes rain and dew. When flowing below it forms streams and rivers. If a way is made for it, it flows along that path. And we want to make that path. We want the water of this country to flow out into a network reaching every individual. Take it cherish it as affirming your human dignity; nourish your humanity. With water we will wash away the past, we will from now on ever be bounded by the blessing of water.

"Water gathered and stored since the beginning of time in layers of granite and rock, in the embrace of dams, the ribbons of rivers - will one day, unheralded, modestly, easily, simply flow out to every South African who turns a tap."¹²⁵

The introduction of the White Paper brought tremendous change to the water law of South Africa. One of the overriding priorities of the GNU to meet the basic needs was to ensure that all people have access to sufficient water.¹²⁶ This was to be achieved by making water a national resource¹²⁷ of which the Government is the public trustee.¹²⁸ Most significant in the White Paper was the introduction of the Reserve¹²⁹ in which the utilization of water resources for human and environmental needs is determined. The White Paper however does not define the reserve. A reserve is defined in the NWA in its definition section as the quantity and quality of water required to satisfy the basic human needs by securing basic water for the people who are now or who will in the reasonably near future be relying upon, taking water from, being supplied from the relevant water resources, and the protection of aquatic ecosystem in order to secure ecologically sustainable development and use of the relevant water resources.¹³⁰ The NWA specifies that before any utilization of

¹²⁴ Antjie Krog, title anonymous (available from www.dwaf.gov.za)

¹²⁵ Antjie Krog (fn124)

¹²⁶ White Paper on National Water Policy of 1997

¹²⁷ Principle 8 read together with principle 12 and 13, all water, wherever it occurs in the water cycle, is a resource common to all, the use of which shall be subject to national control. All water shall have a consistent status in law, irrespective of where it occurs

¹²⁸ Principle 8 states, the water required to ensure that all people have access to sufficient water shall be reserved

¹²⁹ Principle 10 read with 8, the water required to meet the basic human needs referred to in principle 8 and the needs of the environment shall be identified as the Reserve and shall enjoy priority of use by right. The use of water for all purposes shall be subject to authorization

¹³⁰ NWA definition section, "Reserve" the quantity and quality of water required-

- (a) To satisfy the basic human needs by securing a basic water supply, as prescribed under WSA (Act No. 108 of 1997), for the people who are now or who will, in the reasonable near future be
 - (i) Relying upon,

water can be assumed for any purpose, the reserve must be determined. There can be no use allocation made before the reserve has been set.¹³¹

2.2.4. Draft White Paper on Water Services of 2002

The Draft White Paper on Water Services of 2002 was written to address the challenges that were and are still facing most South Africans in the delivery of services. The most crucial factor when dealing with the delivery of services is that of equality in the access to natural resources, including water. In South Africa access inequality to basic services was, and still is, a stark reality.¹³² The GNU has strived to address the results of past discrimination. It is estimated that more than 10 million people have been provided with basic water supplies in rural and urban areas. But unfortunately the progress with sanitation has been much slower and great challenges remain.¹³³ About 38 per cent of South Africa's population is still without adequate sanitation.¹³⁴ Lack of sanitation services has in many areas resulted in health-related diseases such as cholera in Kwazulu-Natal and other parts of the country.¹³⁵ This emphasises the need for acceleration of safe water and proper sanitation services and hygiene awareness.¹³⁶ The delivery of basic services such as water and sanitation is intertwined with and closely related to the alleviation of poverty. And it is therefore important that South Africa focuses on delivery of water and sanitation services.¹³⁷ Its policies have to ensure room for the basic service delivery and the utilization of resources in a sustainable manner. Furthermore service delivery has to keep pace with the population growth, which affects the performance of natural resources.

Access to basic water supply and sanitation services means access to water services.¹³⁸ The Institutions that are involved in water service delivery are:¹³⁹

- DWAF, which is responsible for policy and regulation of the sector and also currently operates water resource infrastructure such as dams, bulk water supply schemes and some retail infrastructure providing access directly to consumers.

(j) Taking water from; or

(k) Being supplied from, and

(l) The protection of aquatic ecosystem in order to secure ecologically sustainable development and use of the relevant water resources

¹³¹ National Act News (DWAF news letter for the water utilization) copies are available from DWAF regional offices 2004

¹³² Draft White Paper on Water Services of 2002 para 1.1

¹³³ Draft White Paper (fn 132) para 1.1

¹³⁴ Draft White Paper (fn 132) para 1.1

¹³⁵ Draft White Paper (fn 132) para 1.1

¹³⁶ Draft White Paper (fn 132) para 1.1

¹³⁷ Draft White Paper (fn 132) para 1.1

¹³⁸ Draft White Paper (fn 132) page 2

¹³⁹ Draft White Paper (fn 132) page 3

- Government owned water boards currently operate water resource infrastructure, bulk potable water supply schemes (selling to municipalities and industries), some retail water infrastructure and some wastewater systems.
- Municipalities operate some local water resource infrastructure (such as dams and boreholes and bulk water supply schemes, supply water and sanitation to the retail consumer (household, business and industries) and operate wastewater collection and treatment systems.
- Community based organizations run small water schemes in rural areas.
- Publicly or privately owned companies provide services in terms of contracts with municipalities. Johannesburg Water, a water utility wholly owned by the City of Johannesburg, is an example. Privately owned companies are involved in the water service delivery.

This represents remarkable progress in water management and service delivery policy because the focus now is on local level. It will now be possible for local government to assume full operational responsibility for water services and sanitation services as provided by the Constitution.¹⁴⁰ This however does not mean that DWAF has no role to play in water service delivery because the Department will ensure that it supports the local government as assigned to it by the Constitution and because water is effectively regulated nationally. Water has economic value and has to be treated as such. The Draft White Paper confirms the responsibility of local authorities by providing a new financial framework for water and sanitation services.¹⁴¹ The Draft White Paper proposes that local government be provided with equitable share and the municipal infrastructure grant.¹⁴² In order to maintain the sustainability of financial and institutional sectors it is proposed that the main aim should now be to ensure that water and sanitation projects and the agencies that manage water and sanitation services are maintained and expanded.¹⁴³

The definition of water services by the Draft White Paper promotes the optimal use of water as a resource. Water services are defined in relation to the use and education. A basic water supply is defined as the provision of appropriate education in respect of effective use as well as a minimum quantity of 25 litres of potable water per person per day within 200 meters of a household, which is not interrupted for more than seven days in any year, and a minimum flow of 10 litres per minute in the case of communal water points.¹⁴⁴

¹⁴⁰ Draft White Paper (fn 132) page 4

¹⁴¹ Draft White Paper (fn 132) page 5

¹⁴² Draft White Paper (fn 132) page 5

¹⁴³ Draft White Paper (fn 132) page 5

¹⁴⁴ Draft White Paper (fn132) page 8

2.2.5. Strategic Framework for Water Services September 2003

The strategy supersedes the Draft White Paper discussed above. An important integral part in the way in which water resources are utilized is the formulation and implementation of strategies which will provide a framework of regulations and principles around water use. It is for this reason that this paper discusses the water and sanitation strategies. Developments in the use of water have to include these strategies when they are planned for the sustainable and efficient utilization of the water resources. Information gathered during the consultation reveals that there is a need to review the basic level of water service from 25 to 50 litres per person.¹⁴⁵ An allocation of 25 litres per person is low as a basic level of water for human consumption.¹⁴⁶ This therefore suggests that water service delivery has to be reasonably speeded up so that the eight million people concerned could have access to water at a reasonable level. Access however is qualified because water use must be sustainable in the circumstances. For example access to water is limited if the water stops flowing or the toilet no longer works.¹⁴⁷ What this means is that water utilization has to meet the basic principles¹⁴⁸ that govern the proper utilization of water resources as a whole. The free basic water and sanitation services introduced will inevitably address the problem of water scarcity amongst our people because it is intended to at least provide every South African with a right to water service that is affordable.¹⁴⁹

Lack of access to water supply and sanitation constrains opportunities to escape poverty and exacerbates the problems of vulnerable groups, especially those affected by HIV/Aids and other diseases. It is therefore appropriate that a key focus of South Africa's water services policy should be on ensuring access of the poor to adequate, affordable and sustainable levels of defined basic water supply and sanitation services.¹⁵⁰

For the past nine years through the RDP the focus was on delivery. It is now advisable to place greater emphasis on sustainability of the resource through conservation and demand management and management of the infrastructure and the institutions responsible for providing the services by ensuring financial viability.¹⁵¹ The change in focus will bring economic development of water resources.¹⁵² In order to promote greater

¹⁴⁵ Strategic Framework for Water Services September 2003 at page 1

¹⁴⁶ Professor Xu says that the South African standard is low as compared to other countries like United States, where basic level of water is up to 100 or more litres per person

¹⁴⁷ Strategic Framework for Water Services at page 1

¹⁴⁸ See the principle of sustainability, conservation, protection, management, polluter pays principle, precautionary steps or measures, dignity and equality

¹⁴⁹ Strategic Framework, preface

¹⁵⁰ Strategic Framework, at page 7

¹⁵¹ Strategic Framework, page 7

¹⁵² Strategic Framework, page 7

effectiveness and efficiency, a process of institutional reform of water service provision will be initiated.¹⁵³ Institutional reform, water boards and the private sector are to be involved. The role of the private sector in the provision of water services is welcomed, provided that consumer interests are protected.¹⁵⁴ The initiatives include the responsibility to all water service authorities to report annually on progress against their water services development plans by 2005.¹⁵⁵

Water and sanitation service principles provided in policies should serve as guiding and leading principles. The principles are equitability (adequate services to all people, fairly)¹⁵⁶, affordability (no one is excluded from access to basic services because of cost),¹⁵⁷ effectivity (the job is done),¹⁵⁸ sustainability (there are adequate resources to operate, maintain, rehabilitate and expand services in future, as necessary).¹⁵⁹ Education is a key element in the use of water. It should be assured that all people living in South Africa are educated to use water optimally.¹⁶⁰

2. 2.5. Protection of Groundwater as a Water Resource

(a) Groundwater Resource Directed Measures

In order to use water sustainably, the reserve should be protected to comply with human and ecological needs. The practical expression of the resource protection is given by the determination of measures directed for the protection of the resource; these measures are called Resource Directed Measures (RDM)¹⁶¹. This is an approach that consists of three components, namely, the setting of Reserve, Resource Quality Objectives (RQO) and Classification of Water Resources. Because the NWA was promulgated to ensure optimal and sustainable use of the country's limited resource for the benefit of its diverse and growing population there is a need for the determination of RDM.¹⁶² RDM are practical measures to be taken in relation to the resource protection, for example the spring flow from an aquifer is to be protected and only limited abstraction, far

¹⁵³ Strategic Framework, page 8

¹⁵⁴ Strategic Framework, page 15

¹⁵⁵ Strategic Framework for Water Services at page 15

¹⁵⁶ Draft White Paper (fn132) page 11, read with principle 9, Everybody has a right to basic water supply and sanitation

¹⁵⁷ Draft White Paper (fn132) page 11, read with section 9 of the Constitution and Principle 9 of the Draft White Paper

¹⁵⁸ Draft White Paper (fn132) page 11

¹⁵⁹ Draft White Paper (fn132) page 11, read with principle 18 Water Services should take into account their impact on the natural environment and seek to minimize any negative impacts through remedial measures

¹⁶⁰ Principle 12

¹⁶¹ NWA News (fn 133) p- 7

¹⁶² Water Research Commission (fn1) para 2.22.

enough from the spring, can be allowed.¹⁶³ Resource protection is the key objective of the Act and is addressed through RDM.¹⁶⁴

The Act lays the foundation for systematic and proactive protection of water resources in line with sustainability principles.¹⁶⁵ Protection of all aquifers to the same level is neither possible nor necessary.¹⁶⁶ The department follows a differentiated protection policy, where priority is given to important and vulnerable aquifers, in particular aquifers that are a sole source of water supply.¹⁶⁷

(b) Groundwater Reserve

The reserve is defined by the NWA in terms of geohydrology, meaning the quantity and quality of groundwater required¹⁶⁸ to satisfy basic human needs by securing a basic water supply for people who are now or who will in the foreseeable future be (1) relying on, (2) taking water from, or (3) being supplied by the relevant water resource, and to protect aquatic ecosystems, in order to secure ecologically sustainable development and use of the relevant resource.¹⁶⁹

The reserve is a unique measure in our water legislation, which together with other points in the NWA must be determined by the Minister of Water Affairs and must be given effect by the Director General (DG) in terms of the Act.¹⁷⁰ This must provide the quantity and quality of water for basic human needs and the protection of ecosystems.¹⁷¹

Groundwater resource comprises three parts: the non-extractable portion, the component set aside for the reserve and the portion that can be used or allocated.¹⁷² These components of the reserve can be seen as that portion of natural replenishment to the groundwater that cannot be allocated for use in order to keep the system's capacity to sustain the basic human needs and aquatic ecosystem requirements.¹⁷³ The quality and quantity of the water should be determined in accordance with the resource as a whole and will vary according to the class so determined.¹⁷⁴

¹⁶³ NWA News (fn 131) p- 7

¹⁶⁴ Water Research Commission (fn1) para 2.22

¹⁶⁵ NWA News (fn 131) p- 6

¹⁶⁶ NWA News (fn 131) p- 6

¹⁶⁷ NWA News (fn 131) p- 6

¹⁶⁸ Water Research Commission (fn1) para 2.3.3

¹⁶⁹ Water Research Commission (fn1) para 2.3.3

¹⁷⁰ NWA News (fn 131) p-7 read together with Section 16 (1) (2) (3) Part 3 and section 18 of the NWA

¹⁷¹ NWA News (fn 131) p-7

¹⁷² NWA News (fn 131) p- 7

¹⁷³ NWA News (fn 133) p- 7

¹⁷⁴ Water Research Commission (fn1) para 2.3.3

Although there are practical difficulties in conceptualizing the reserve, it is necessary that it be determined. The reserve makes water management feasible as it determines the extent to which water is to be used.

(c) Groundwater Resource Quality Objectives

The NWA provides for the determination of RQO by the Minister, which must be published in the Government Gazette (GG), according to the class of the classified system of the resource.¹⁷⁵

The term quality is used to include the health of all parts of water resources, which together make up an ecosystem, including plant and animal communities and their habitats.¹⁷⁶ For these objectives to be realized and to protect the resource, agreement must be reached amongst all water users.¹⁷⁷ In order to put the objectives into practice, water catchment areas (local level) are the basis for the protection of the resource. This should be effected through a process of consultation with all relevant stakeholders. Groundwater RQO is an approach that provides goals within the management of class set by the Minister during the classification process of the significant water resource.¹⁷⁸ The ultimate goal is to improve the impacted resource, or threshold or safety nets that will limit the impact upon the resource.¹⁷⁹ The objectives should be practical and preferably summarized measures that serve as key indicators for the protection of the groundwater resource. These measures will include the indicators in a range of hydraulics, for example groundwater gradients, water table levels, hydrochemical (total dissolved solids, nitrate) and biotic indicators such as thriving vegetation communities and hypogean fauna. These could be selected to indicate that aquifers are effectively fulfilling their important functions in the environment.¹⁸⁰ It is envisaged that functions of indicators be identified by specialists keeping in mind the importance of these functions and levels of RQOs.¹⁸¹ The RQO are to be set for each part of the reserve. Clear objectives are therefore to be set for the desired level of protection of each resource.¹⁸² The most effective approach to achieve these objectives is to use Receiving Water Quality Objectives (RWQO) as the basis for water environmental quality management.¹⁸³

¹⁷⁵ Sec 13 (1)

¹⁷⁶ White Paper on National Water Policy of 1997 para 6.3.2.

¹⁷⁷ White Paper, 1997 para 6.3.3.

¹⁷⁸ Water Research Commission (fn1) para 2.3.5

¹⁷⁹ Water Research Commission (fn1) para 2.3.5

¹⁸⁰ Water Research Commission (fn1) para 2.3.5

¹⁸¹ Water Research Commission (fn1) para 2.3.5

¹⁸² White Paper on National Water Policy of 1997 para 6.3.2

¹⁸³ White Paper, 1997 para 6.3.2

Although the White Paper only mentions the environmental reserve¹⁸⁴ when these objectives are set, there must also be a determination for human reserve, which is also subject to protection in its quality and quantity. In identifying these objectives, all relevant factors needed for water resource to function must be taken into account -- quality, quantity and reliability of water, the physical and vegetation aspects of habitat in the water and on the banks etc.¹⁸⁵ The objectives to be set for groundwater resource should be identified and should be of a specific standard (ambient) directed for the protection of groundwater usage. Ambient standards are standards that are specific with regard to each resource utilization and protection in relation to health and habitat that makes up the ecosystem. The Constitution set a health standard in that everyone has a right to an environment that is not harmful to human health or well-being.¹⁸⁶ This is specific in that activities done to the environment should not in anyway be detrimental to the health of people. If the activity concerned does become harmful, it will not be conforming to the standard and will be breaching the objective that the Constitution aims to achieve.

(d) Groundwater Resource Classification

The classification provides guidelines on how to set appropriate levels of protection for water resources and the framework for the application of these measures.¹⁸⁷ The application of classification will delineate a groundwater management unit within a significant aquifer resource classed as either protected, good, fair or severely modified.¹⁸⁸ The NWA provides that the classification system should provide guidelines and procedures for determining different classes of water resources.¹⁸⁹ As they provide a framework, they serve as reference for the implementation of groundwater protection, use and management plans for a particular groundwater management unit.¹⁹⁰ Though this paper discusses classification lastly in the mechanisms that protect groundwater, it is actually the first stage under the NWA Chapter 3 in the protection process. For each class of water resource there should be procedures to determine the reserve, management procedures to satisfy water quality requirements of water users, and regulations to protect the resource from impacts of land

¹⁸⁴ White Paper on National Water Policy of 1997 para 6.3.2

¹⁸⁵ White Paper on National Water Policy of 1997 para 6.3.2

¹⁸⁶ Sec 24 (a)

¹⁸⁷ Water Research Commission (fn1) para 3.1.

¹⁸⁸ Water Research Commission (fn1) para 3.1.

¹⁸⁹ Sec 12 (1) (2) (a), As soon as is reasonably practicable, the Minister must prescribe a system for classifying water resources. The system for classifying water resources may establish guidelines and procedures for determining different classes of water resources;

¹⁹⁰ Water Research Commission (fn1) para 3.1.

based and in stream activities.¹⁹¹ In every resource it is necessary to assess the present status of a resource by considering the degree of modification from natural conditions and consequently the degree of risk of irreversible damage to the resource.¹⁹² Future management classes are then set as targets for the protection and management of a resource,¹⁹³ because there are different water resources, which may require a low degree of modification, typically environmental uses and basic human needs.¹⁹⁴ In cases where the stakeholders deem such a use important, they may implement a highly protected class which may be assigned for protection.¹⁹⁵

2.2.6. Groundwater utilization for both human and environmental needs

The utilization of groundwater has determined parameters for each user sector, agriculture, industry, and human consumption for domestic purposes, taking into account the environmental needs as well. In the utilization of water resources the principle of sustainable use is central. Groundwater use is permissible under the NWA.¹⁹⁶ In general, use of groundwater must be licensed unless it is either Schedule 1¹⁹⁷, or is an existing lawful use,¹⁹⁸ or is permissible under a general authorization¹⁹⁹ or if a responsible authority waives the need for a license.²⁰⁰

Use is defined broadly and include taking water from a water resource, storing water, impeding or diverting the flow of water in a watercourse, engaging in a stream flow reduction activity,²⁰¹ or an activity declared to be a controlled activity,²⁰² discharging waste,²⁰³ or water containing waste into a water course,²⁰⁴ through a pipe, canal, sewer, sea outfall or other conduit, disposal of waste in a manner which may detrimentally impact on a water course, disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process, altering the bed, banks, course or characteristics of a watercourse,

¹⁹¹ Water Research Commission (fn 1) para 3.1

¹⁹² Water Research Commission (fn1) para 3.1

¹⁹³ Water Research Commission (fn1) para 3.1

¹⁹⁴ Water Research Commission (fn1) para 3.1

¹⁹⁵ Water Research Commission (fn1) para 3.1

¹⁹⁶ NWA 36 of 1998

¹⁹⁷ *Starke v Schreiber* 2001 (1) ALL SA 167 (C) 182- 183

¹⁹⁸ See para 386 post

¹⁹⁹ See para 381 post

²⁰⁰ See para 383 post

²⁰¹ See para 390 post

²⁰² See para 393 post

²⁰³ See para 363 post

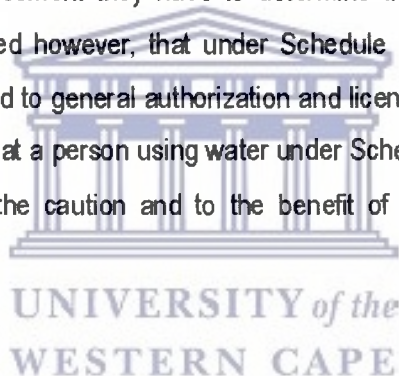
²⁰⁴ Ibid

removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for safety of people and using water for recreational purposes.²⁰⁵

For the purposes of this paper the definition will be brought down to three main elements in the use of water generally: The Schedule 1, general authorization and licensing provisions in terms of the Act.

(a) Permissible water use

The use of water without a license is referred to as permissible water use. This use of water will be permissible water use if such use takes place in accordance with Schedule 1 to the NWA.²⁰⁶ The context in which this paper is that of Schedule 1 use, human use for rural communities, but the paper will also explore other parameters of use such as general authorization and licensing provisions in terms of the Act. In the rural context, in order to utilize groundwater effectively it is critical that hydrologists conduct an assessment of existing water use.²⁰⁷ After assessment they have to determine the parameters in which the groundwater would be utilized. It must be noted however, that under Schedule 1 use there are no parameters set, and parameters are only set with regard to general authorization and licensing (dealt with below). Though there are no parameters it does not mean that a person using water under Schedule 1 could waste water²⁰⁸ as she or he pleases. Water has to be used the caution and to the benefit of the natural environment and its natural functions.



²⁰⁵ NWA, sec 21 (a) – (f)

²⁰⁶ Sec 36, (1) A person may, subject, to this Act (a) take water for reasonable domestic use in that person's household, directly from any water resource to which that person has lawful access; (b) take water for use on land owned or occupied by that person, for – (i) reasonable domestic use; (ii) small gardening not for commercial purpose; and (iii) the watering of animals (excluding feedlots) which graze on that land within the grazing capacity of that land, from any water resource which is situated on or forms a boundary of that land, if the use is not excessive in relation to the capacity of water resource and the needs of other users; (c) store and use run-off water from a roof; (d) in emergency situations, take water from any water resource for human consumption or fire fighting; (e) for recreational purposes- (i) use the water or the water surface of a water resource to which that person has lawful access; or (ii) portage any boat or canoe on any land adjacent to a watercourse in order to continue boating on that watercourse; and (f) discharge (i) waste or water containing waste, or (ii) run-off water, including storm water from any residential, recreational, commercial or industrial site, into a canal, sea outfall or other conduit controlled by another person authorized to undertake purification, treatment or disposal of waste or water containing waste, subject to the approval of the person controlling the canal, sea outfall or other conduit. (2) An entitlement under this Schedule does not override any other law, ordinance, bylaw or regulation, and is subject to any limitation or prohibition there under

²⁰⁷ DWAF Project Charter Groundwater Resource Assessment Phase 11, 2003 para 1.2 (this document is available from DWAF regional offices)

²⁰⁸ Stoop (fn 76) p- 259

(b) General Authorization

In general, in issuing a general authorization, a responsible authority must take into account all relevant factors, including existing lawful water uses, the need to redress the results of past racial and gender discrimination, efficient and beneficial use of water in the public interest, the socio-economic impact of the water use, resource quality objectives of the water resource²⁰⁹ and the environmental needs. General authorization is issued for activities such as industries and agriculture (for commercial purposes) where these activities use large amounts of water that impact on the quality and quantity of water resources. A responsible authority, the Minister in terms of the Act, gives authorization.²¹⁰ The responsible authority may attach conditions to every general authorization relating to (a) the protection of the water resource in question,²¹¹ and (b) Relating to water management by specifying management practices and general requirements for any water use, including conservation measures, monitoring, reports and analysis of the reports, imposing duty measures and record aspect and payments of charges.²¹² Under general authorization parameters are specified in which the water user must use the water according to the parameters and not more. For example in the Western Cape there are parameters set for each zone. Groundwater Abstraction for Zone B is 45 m³ (tertiary drainage regions), the abstraction is then subdivided into quaternary drainage regions for easy management at catchment level.²¹³ Where the water user will abstract groundwater more than the specified parameter the user must apply for a license.²¹⁴

(c) Licensing for Groundwater Abstraction

A license to use water is based on whether the specific use of water, together with other uses already in practice, will,²¹⁵

- (a) Affect the volume of water available to other users
- (b) Affect the quality of water to such an extent that others users are no longer able to use it
- (c) Affect the long term sustainable utilization and protection (the reserve), and

²⁰⁹ Stoop (fn 76) p- 259

²¹⁰ Sec 27, NWA

²¹¹ Sec 29 (1) (a)

²¹² Sec 29 (1) (a) – (h) (i) – (iv)

²¹³ *Groundwater abstraction Zones: Tertiary and Quaternary Drainage Regions (available in DWAF offices on request)*, 2004

²¹⁴ Part 7 NWA, Individual Licensing

²¹⁵ NWA News (fn 133) p 6

(d) Will damage the integrity of aquatic ecosystem, including aquatic habitats and animals.

To use groundwater effectively, the Act²¹⁶ puts emphasis on water conservation, water use efficiency and water demand management. Licensing can be used to enforce these principles for groundwater. In water stressed areas users will be notified to apply for licenses and may be required to provide additional information or to undertake environmental assessment.²¹⁷ In the application the department will draw a proposal for comments, detailing how the available water will be allocated among applicants.²¹⁸ Any applicant not satisfied with the comments of the department may appeal to the water tribunal, and if there are no disagreements the preliminary schedule becomes final and a license is issued.²¹⁹

(d) Integrated Groundwater Resource Management (IGWRM)

Integrated Groundwater Resource Management is a philosophy of coordinated management of an area's water, land and other resources to maximize economic and social welfare in an equitable manner without compromising the sustainability of the resource and vital ecosystem.²²⁰

The rationale of having IGRM in our water law is because the impact on the resource affects the aquatic ecosystem linked with the resource, the quantity and quality.²²¹

For this reason the NWA's vision of providing IGRM is underpinned by the key principles of equity, sustainability and efficiency of natural resources, the groundwater and surface water.²²² Integration takes place across the three major subsystems: the natural resources, the management system and the institutional system.²²³

Because groundwater is part of the hydrological cycle it must be understood in the context of the whole natural resource system and must be backed up with the information on boundaries of the aquifer, its interaction with surface water and aquatic ecosystems and its vulnerability to negative human impacts.²²⁴ In order to have effective management, various water uses by different water users are best manageable on a catchment basis.²²⁵ Catchment management is now considered as the conventional wisdom in water laws because water

²¹⁶ NWA Chapter 1 (Interpretation and Fundamental Principles)

²¹⁷ NWA News (fn 133) p 6

²¹⁸ NWA News (fn 133) p 6

²¹⁹ NWA News (fn 133) p- 6

²²⁰ NWA News (fn 133) p -6

²²¹ NWA News (fn 133) p- 5

²²² NWA Chapter 1

²²³ NWA News (fn 133) p-5

²²⁴ NWA News (fn 133) p-5

²²⁵ NWA news (fn 133) p-5

scarcity is stretching far beyond community boundaries and political borders.²²⁶ Community based natural resource management must play a critical part in broader approaches in solving the problem of water scarcity.²²⁷ Groundwater management at local level is crucial in water management because on the one hand it checks people's exploitation of the groundwater resource and on the other hand involves those people in the management of the resource²²⁸, so that they could be aware of the impact of their water consumption on the environment and the resource at local level.

2.7. Conclusion

From the above it is clear that groundwater is a reliable resource for human and environmental needs. The question that remains is how each water user uses the available water, taking into account the scarcity of the resource, ecological needs and human needs. In turn, all depends on the type of the aquifer in which groundwater has been extracted.²²⁹ The more water there is in the aquifer, the more sustainable it would be for human and environmental needs. Another factor is economical. For example, agriculture as one of the corner stones of South Africa's economy uses much water. At the moment agriculture accounts for almost 60 per cent of water use in South Africa²³⁰ and this include the use of groundwater. It is therefore crucial that, in order to maintain the balance between human and environmental needs in the utilization of groundwater, planning be central in groundwater abstraction. It must be investigated hydrologically what the potential of the aquifer is. Accessibility (depth of the aquifer), exploitability (yield and pumping, availability resource and recharge), sustainability (chemistry and risk of pollution) and conservation (size and hydrodynamic situations) should be examined.²³¹

²²⁶ Brooks (fn 50) p- 5

²²⁷ Brooks (fn 50) p-5

²²⁸ NWA News (fn 133) p -5

²²⁹ Professor Yongxin Xu, interview (fn 70)

²³⁰ DWAF- Proposed NWRS, Summary August 2002

²³¹ DWAF Project (fn 207) para 3.3.

CHAPTER 3

Constitutional, Legislative and Institutional Dimension

3.1. Introduction

Foremost among the South African Constitutional provisions are the implementation and interpretation of the rights entrenched in the Bill of Rights. To achieve the object of the Constitution, given the open ended and often vague nature of the provisions, judges of the Constitutional Court often turn to the history of South Africa and use it as a “grant narrative”.²³² A narrative grant interpretation means that the interpretation is a universally accepted history of the origin and purpose of the Constitution.²³³ If, when interpreting the provisions in the Constitution, focus is only on the present circumstances we will not succeed because history reflects or gives us choices as to who and what must be included and who and what to exclude.²³⁴

Access to South African natural resources cannot be successfully realized if we neglect the past inequalities. We need therefore to reflect on the history of our country in the question of the realization of the right of access to water and sanitation. South African water law history reflects the distinction in water resources as a natural resource, neglecting access to the poor. This paper applies grants narrative interpretation of the provisions in the Bill of Rights as far as water and sanitation and the ecological system are concerned. These matters also have a history of neglect and vulnerability.

3.2. Principles governing water resources and ecological system

Basic principles provided by the NWA serve as guidance in the exploitation of natural resources, including water. This Act provides that the national Government, acting through the Minister of Water Affairs, carries the responsibility to ensure that water resources are protected and that water is allocated equitably and used beneficially in the public interest.²³⁵ This responsibility does not only concern the control of over-abstraction of water but also all other aspects of water use, in particular the protection of water resources and the discharge

²³² P. De Vos South African Law Journal on Human rights; *A Bridge too far*, Volume 17 Part 1 2001 page 1

²³³ P. De Vos (fn 232) p-1

²³⁴ P. De Vos (fn 232) p-1

²³⁵ Antonie Geldenhuys *The NWA A short review De Rebus*, November 1997 page 59

of waste into water.²³⁶ Abstraction of water serves different purposes -- human and animal use, agriculture, to get rid of waste, and aesthetic environmental conservation.²³⁷ In terms of section 36 of the NWA, the Minister may declare a particular activity to be a stream flow activity if the activity is likely to reduce the availability of water.²³⁸ Section 38 provides that the Minister may declare any activity to be a controlled activity, if that activity is likely to have a detrimental impact on water resources.²³⁹ This category is directed mainly towards activities that cause pollution.²⁴⁰ These efforts by the department are not only directed towards enhancing human needs but also meant to enhance the notion that water is for the environment.²⁴¹ It therefore means that management of water resources should be considered from the perspective of environment.²⁴² It is important to note that in order to achieve access to water and sanitation, we must treat water as both a social and economical asset. Also, water should be appropriately managed keeping in mind that it is a scarce natural resource.²⁴³ In ensuring that these rights are progressively realised, free basic water and sanitation services have been introduced in a way aimed at assisting in promoting sustainable access to a basic water supply by subsidizing the ongoing operating and maintenance costs of a basic water supply service.²⁴⁴ Sustainable utilization and viability of water services must be enhanced as part of the local government financial system. Policies should honour the "polluter pays" principle, which is a cornerstone in the governance and management of natural resources.²⁴⁵ Municipalities must implement these principles with immediate effect and if they are unable to do so, they must

²³⁶ Antonie Geldenhuys (fn235) p-59 read with sec 21 of NWA the definition of "water use"

²³⁷ Antonie Geldenhuys (fn235) p-59

²³⁸ Chapter 4, Part 4. stream flow reduction activities, this part allows the Minister, after consultation, to regulate land based activities which reduce stream flow, by declaring such activities to be stream flow reduction activities. Whether or not an activity is declared to be a stream flow reduction activity depends on various factors, such as the extent of stream flow reduction, its duration, and its impact on any relevant water resource and on other water users. The control of forestry for its impact on water resources, currently exercised in terms of the Forest Act, is now exercised under this Part (the Working for Water Programme is an example of action under Part 4 available at www.dwaf.gov.za which aims at reducing the impact cause by alien plants to water resources)

²³⁹ Sec 38, Declaration of certain activities as controlled activities (1) the Minister may, by notice in the Gazette, in general or specifically, declare an activity to be controlled activity. (2) Before declaring an activity to be a controlled activity the Minister must be satisfied that the activity in question is likely to impact detrimentally on a water resource. (3) Before making a declaration under subsection (1) the Minister- (a) must publish a notice in the Gazette- (i) setting out activity or category of activities proposed to be declared; and (ii) inviting written comments to be submitted on the proposed declaration; specifying an address to which comments are to be submitted, which date may not be earlier than 60 days after publication of the notice; and (b) may, in the case of a specific activity on a specific site, make the notice known by delivering or sending a copy to the owner or the person in control of the site in question, or to every organ of state, which, and every person who, has an interest in the matter; (c) must consider what further steps, if any, are appropriate to bring the contents of the notice to the attention of interested person, and take those steps which the Minister considers to be appropriate; and (d) must consider all comments received on or before the date specified in paragraph (a) (ii)

²⁴⁰ Antonie Geldenhuys (fn 235) p-59

²⁴¹ Rabie M.A. "Water for the Environment" (1989) Tydskrif vir Hedendaagse Romeinse Reg at page 12

²⁴² Rabie M.A. "Water for the Environment" (1989) Tydskrif vir Hedendaagse Romeinse Reg at page 12

²⁴³ Statement made by former Minister of DWAF (April, 2003) published in the Strategic Framework for Water Services September 2003 at page 27

²⁴⁴ Strategic Framework for Water Services (fn 145) p-29

²⁴⁵ Strategic Framework for Water Services (fn 145) p-29

explain to the department why they are unable.²⁴⁶ Municipalities must provide a plan for implementing the policy and the implementation must be assured through national regulation and support.²⁴⁷ The principle of cooperative governance becomes important in this regard, as water service delivery will only be effective if all levels of government work together as a team and strive towards the betterment of the lives of people.²⁴⁸ Utilization of natural resources must be driven by a vision of protection and sensitivity, which is supported by the ideology that the many demands put on natural resources should be managed properly. Integration of all natural resources as provided by the legislation and policies should govern the use of natural resources. This will enhance the proper management of land-based user activities that have major impacts on natural resources, such as pollution resulting from agricultural practices.

Section 28 of NEMA²⁴⁹ provides that people should take reasonable precautions to prevent pollution of water resources. The application of this section has always been problematic in the sense of to what extent the polluter could be held liable. In a recent judgment²⁵⁰, which concerned air pollution by hydrogen sulphide that had an adverse impact on human well-being, the court held that section 28 (12) -- which provides for the application to court for investigation, evaluation and assessment of the impact of activities and to report on it by the polluter -- does not empower the court to direct the chief air pollution control officer to suspend the polluter's registration certificate or direct it to halt its activities.²⁵¹ Judge Leach restricted himself by mentioning that where it was clear that a party caused pollution as described in NEMA the court had the power to instruct the polluter to comply with the steps provided for by section 28 (12). The court concluded that pollution problems at the polluter's business were longstanding and persisted despite efforts to curtail them.²⁵²

To practice sustainable water resource utilization, the principles of environmental justice have to be applied.²⁵³ The environmental clause is regarded as a touchstone against which we can evaluate the new democratic Government's progress in delivering environmental justice.²⁵⁴ For any measure that regulates the use of natural resources, environmental justice must be pursued first, so that the resource is kept fit for the intended use. If

²⁴⁶ Strategic Framework for Water Services (fn 145) p-29

²⁴⁷ Strategic Framework for Water Services (fn 145) p-29

²⁴⁸ Chapter 3 of the Constitution, sec 41 (1) (b)

²⁴⁹ Sec 28

²⁵⁰ *Hichange Investments (Pty) Ltd v Cape Produce Co (Pty) Ltd v/a Pelts Products, and Others* 2004 (2) SA 393 (E)

²⁵¹ Sec 28 (12)

²⁵² *De Rebus* (fn 276) p- 45

²⁵³ NEMA sec 2 (c) *Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in manner as to unfairly discriminate against any person.*

²⁵⁴ J. Glazewski, *Environmental Justice and the SA Democratic Legal order* (1999), *Acta Juridica* 1-36

environmental justice is not applied, the right of access to natural resources will be impaired because the resources could be exploited and destroyed.

Environmental justice²⁵⁵ is defined as:

A social transformation directed towards meeting human needs and enhancing the quality of life- economic equality, health care, shelter, human rights, species preservation, and democracy- using resources sustainably. A central principle of environmental justice stresses equal access to natural resources and the right to clean air and water, adequate health care, affordable shelter, and a safe work place.... Environmental problems therefore remain inseparable from other social injustices such as poverty, racism, sexism, unemployment, and urban deterioration.

The right of access to basic water and sanitation is directly linked to the concept of environmental justice; water and sanitation are social services and aims at transforming the social conditions of people. It is therefore imperative that when natural resources are utilized, they must be utilized in such a way that they enhance human rights, taking into account that sustainable utilization of resources promotes social justice and environmental justice. On top of that equality is seen to be in the centre of natural resource distribution. In redressing the past racial discrimination in our society, equality and justice should therefore prevail in our water laws. Equality per se should be exercised in all forms, in the distribution, the decision-making process, and participation between the Government and people.²⁵⁶

South African water law has significantly achieved these principles by focusing more on access to natural resource distribution equitably²⁵⁷ so that those without these basic services could get access and have a sustainable life. This is a good turning point, but we need to take a step further by treating all water resources as national assets so that it would become possible for the national Government to deal with the question of service delivery as its constitutional mandate. To steer the question of water and sanitation, Government institutions and local organizations, including the courts of law, should strive towards a common goal in ensuring that each individual in society is afforded an opportunity with equal respect and dignity.²⁵⁸ Alliance and networking of all relevant stakeholders promote sustainability of institutions and prevent conflicts.²⁵⁹ This means that, if institutions are sustainable, conflicts between various institutions will be prevented. It will also

²⁵⁵ R Hofrichter " Introduction in R Hofrichter (ed) *Toxic Struggles: The Theory and Practice of Environmental Justice* (1993) 4

²⁵⁶ Jan Glazewski (fn 254) p-4

²⁵⁷ J. Glazewski (fn 371) says that finally it may be noted that while notion of environmental justice in America and South Africa is primarily concerned with equitably distribution of the burdens of pollution activities, in South Africa there is an additional and distinct emphasis on access to basic resources such as land and water as well as community participation in decision making, page 6

²⁵⁸ Sec 9 (1) Everyone is equal before the law and has the right to equal protection and benefit of the law, read with section 10 - Everyone has inherent dignity and the right to have their dignity respected and protected.

²⁵⁹ Our Future, our Choice (fn 108)

influence the sustainability of and impact on natural resources because these bodies will liaise with each other so that damage to the environment could be prevented or minimized, and water and sanitation services be regulated and problems addressed.

Technology and the courts of law become of particular importance in this regard. Courts enforce natural resource law in terms of which it can order that environmental impact assessments be conducted in water development projects. Technology is the appropriate tool to carry such investigation. A technical report on Water Situation Assessment Model (WSAM) in 2001²⁶⁰ reviewed information needed for groundwater allocation and rural communities. The databases used identified the situations where groundwater was used as a sole or shared water source.²⁶¹ A basic water supply of 30 litres per day was taken and multiplied by the population figure that the resource served.²⁶² However, use of technology needs financial support. For this reason the national Government has to support other institutions financially to provide the necessary technology. Where possible, room should be made for private companies to involve themselves in water service delivery and to carry out the necessary work that will ensure that water resources are exploited optimally and sustainably.²⁶³

The answer to the question of who is responsible for the realization of the rights of access to water and sanitation services, protection of the country's scarce resources as well as ecosystem protection can be answered with reference to the constitutional application in terms of section 8.²⁶⁴ However, the initiatives must first be taken by the State to provide these services. It then leaves an obligation upon citizens to look after the resource when they utilize it. Citizens are obliged to take care of the resource by ensuring that they minimize damaging activities such as pollution and waste of water.

As mandated by the Constitution, all spheres of government are responsible for the realization of the rights entrenched therein. Local organizations should play a very prominent role in ensuring that they engage with local municipalities to provide water and sanitation. Various projects are in place aiming at promoting the use of groundwater as an option that could save the country's water resources. The Government has shown commitment in redressing the past racial discrimination in the access to the country's resources by making water a national resource under constitutional mandate and putting emphasis on service delivery. However,

²⁶⁰ Paul Seward and Jane Baron, *An investigation into the Groundwater Use in South Africa*, April 2001

²⁶¹ Paul Seward and Jane Baron (fn260) para 3.2

²⁶² Paul Seward and Jane Baron (fn260) para 3.2

²⁶³ Draft White Paper (discussed above), institutions involved in water service delivery, para 2.2.4.

²⁶⁴ Sec 8 (1) *The Bill of Rights applies to all law, and binds the legislature, the executive, the judiciary and all organ of state; (2) A provision of the Bill of Rights binds a natural or a juristic person if, and to the extent that, it is applicable, taking into account nature of the right and the duty imposed by the right.*

problems exist in the management of water resources, such as control over human activities that cause the resources to deplete, especially agricultural use of chemicals that contaminate groundwater.

Education and awareness are to be brought to attention in dealing with the contamination of groundwater. One of the advantages of education is that it helps reducing the exploitation of natural resources because it changes the reasoning of individuals. It makes it easy for the authorities to maintain the resources because people will be “whistle blowers” and keep the authorities informed on problems concerning the resources. Once people are educated about the importance of water to their lives they will start developing a political will in volunteering themselves to look after the resource. It is a fact that most people do not know that the country suffers from a scarcity of water. To look after the resources and report the danger is an effective way of saving our water resources. This does not need any knowledge or expertise, only the will and attitude which could be cultivated through education. Laws could be formulated and play a very important role, but would still be ineffective if nobody is aware of or cares about those laws.

For environmental protection to be possible, management of resources should strive towards achieving social, economic and environmental sustainability in the use of water resources. Social sustainability of the resources means that humans should live in an environment that is not harmful to their health or well being and that utilization of the resource should at all times be in the public interest. The economic value of natural resources must be conserved in economic terms. Utilization thereof should maintain the intrinsic value of natural resources. Environment (natural resource) has an economic value (it is capital). Renewable and non-renewable resources should therefore be utilized in such a way that it can renew itself and sustain over a long period of time. Activities on land should not be of such a nature that the natural environment could not regenerate itself.

The question can be asked though, how this is achieved and actually put it into reality. The answer could lie in education (referred to above) and Environmental Impact Assessment (EIA) for intended land developments. EIA plays a very important role in the optimal utilization of natural resources because this is the initial stage in any kind of activity that will impact on the resource and provides for the setting of priorities in the decision-making process for the resource management. It is therefore imperative that each developmental project first conducts impact assessment to foresee any possible negative impact. Where the assessment is conducted it will be possible to mitigate any negative impact to the resource and find alternatives that will ensure that the resource is utilized optimally so that it retains its intrinsic value and remains fit for its intended use. The term

EIA has both spatial and temporal components and can be described as the change in an environmental parameter, over a specified period and within a defined area, resulting from a particular activity not being initiated.²⁶⁵ EIA has found its way into the South African water law and policies. EIA is practiced through the assessment of impact of the user on other users of the resource. The impact of one user upon another is called accumulative impact because the effects are felt by the other user. The users herein refer to humans and the environment. Impact assessment helps in resource management by managing demand (managing the resource). EIA finds its way into policy regulations of South African water laws with the introduction of the regulation on environmental conservation.²⁶⁶ EIA has to be a study plan in which decisions are based on the study so conducted. The plan should contain description of the environmental issues identified, which require investigation and assessment.²⁶⁷ Feasible alternatives must be portrayed in the plan.²⁶⁸ Information required determines potential impacts of the proposed activity. Methods to identify these impacts and the description of the proposed method of assessing the significance of these impacts should also be portrayed in the plan of assessment.²⁶⁹ The authority responsible²⁷⁰ is to assess the assessment plans and may make findings as to whether the plans may need any amendments before accepting them.

In terms of section 2 of the Environmental Conservation Act as amended (ECA)²⁷¹ the Minister has a duty to ensure that natural resources are protected and this duty has to be performed as soon as the assessment is completed. Duties include:

- (d) The establishment and maintenance and improvement of acceptable human living environments, which contribute to a generally acceptable quality of life for the inhabitant's accordance with the environmental values, and environmental needs communities of the Republic of South Africa
- (e) The promotion of the effective management of cultural resources in order to ensure the protection and responsible use thereof
- (f) The promotion of environmental education in order to establish an environmentally literate community with a sustainable way of life
- (g) The execution and co-ordination of integrated environmental monitoring programmes

²⁶⁵ Peter Waltham, Environmental Impact Assessment (Theory and Practice) Academic Division of Unwin Hyman Ltd (New York) 1994 at page 7

²⁶⁶ Government Notice No. R. 1182 of 5 September 1997

²⁶⁷ Sec 7 (1) (a)

²⁶⁸ Sec 7 (1) (b)

²⁶⁹ Sec 7 (1) (c) (d) (e)

²⁷⁰ Sec 2, Responsible Authority is the Minister of Environmental Affairs and Tourism as responsible authority in the conservation of natural resources. This does not exclude the Minister of the Department of Water Affairs and Tourism where the proposed activity will use water.

²⁷¹ Environmental Conservation Act Amendment Act 52 of 1994, as amended.

NEMA in section (4) (i) provides that all impact on the environment must be assessed and evaluated and decisions must be appropriate in the light of such consideration and assessment.²⁷² This means that in cases where land usage has an impact on the resource, i.e. farming which has a direct impact on groundwater, assessment is important to mitigate and provide alternatives to reduce the impact. The pressure put on our resources cause the resources to degrade their value and this hampers water and sanitation services. People have a right to clean water and where the value of water has been degraded, it will curtail this right. Balancing the demand can prevent resource degradation. To achieve the balance access to the resource should be managed integrated and sustainably so that distribution could be equal and fair.

3.3. Constitutional Dimension

3.3.1. Bill of Rights perspective

The history of allocation of South Africa's water resources reflects the consequences of the Apartheid ideology.²⁷³ The Constitution is imperative in the access to natural resources because it aims to redress the divisions of the past and strive to improve the quality of life of all citizens.²⁷⁴ The introduction of the Constitution marked a milestone in the way in which water resources are to be allocated at present and in the near future. The Constitution entrenches the principle of equality, in which all citizens must have equal opportunity to get access to water and sanitation services. It does so by providing that²⁷⁵: Everyone has the right to have access to –

- (b) Sufficient food and water; and
- (2) The State must take reasonable legislative measures and other measures, within its available resources, to achieve the progressive realization of each of these rights.

Most significantly in the Constitution is the fact that it also reflects on environmental rights by providing that: everyone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation and secure sustainable development and use of natural resources while promoting justifiable

²⁷² Sec 4 (i)

²⁷³ Glazewski (fn 36) p- 512

²⁷⁴ Glazewski (fn 36) p- 512

²⁷⁵ Sec 27

economic and social development.²⁷⁶ The two rights will be referred to throughout this discussion as they are linked together because water is life and sanitation is dignity.²⁷⁷ Thinking of the environment resembles peace.²⁷⁸ These rights are classical rights and are referred to as third generation or socio-economic rights and they give rise to various issues²⁷⁹ related to their enforcement and nature.²⁸⁰ Any right in the Constitution may only be deprived in terms of the law of general application,²⁸¹ which means that water rights could be regarded as incorporated into the limitation clause. There can be no limitation or denial of or exclusion from the right of access to water and sanitation except in terms of the law of general application. The Constitution is relevant to the administration of water affairs.²⁸² In this regard water is not mentioned either in Schedule 4 or 5 of the Constitution, so that it remains an exclusive national matter.²⁸³ Hence there are no provincial water affairs departments, only regional offices of the national department of water affairs.²⁸⁴

The national Government has taken legislative measures in the realization of these rights. In 1997 the WSA and in 1998 the NWA were passed (discussed below). However the question is how these pieces of legislation are enforced in order to ensure that they serve their intended purpose. The Draft White Paper on Water Services of 2002 provides how water legislation is enforced.²⁸⁵ The national Government and provincial governments are obliged to *support and strengthen* the capacity of municipalities and to *see to the effective performance* by municipalities of their functions, by regulating the exercise of authority given to municipalities.²⁸⁶ They must see to it that municipalities perform the functions as assigned to them by the Constitution in terms of section 152.²⁸⁷ In exercising these powers, principles of co-operative government and intergovernmental relations as set out and contained in section 41 of the Constitution must be of guidance.²⁸⁸ These principles require all spheres of government to co-operate within one another in mutual trust and good faith by assisting and supporting one another, avoiding legal action against each other and making every

²⁷⁶ Sec 24

²⁷⁷ Draft White Paper on Water Services 2003

²⁷⁸ Industrial Environmental Forum of Southern Africa Earth Summit 92, 2000 in its forward page

²⁷⁹ Glazewski (fn 36) page 5 13

²⁸⁰ See Chapter one, the Abstract of this paper

²⁸¹ Sec 36 (1) The right in the Bill of Rights may only be limited in terms of the law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors; (a) the nature of the right; (b) the importance of the purpose of the limitation; (c) the nature and extent of the limitation; (d) the relation between the limitation and its purpose; and (e) less restrictive means to achieve the purpose.

²⁸² Glazewski (fn 36) page 5 13

²⁸³ Glazewski (fn 36) page 5 13

²⁸⁴ Glazewski (fn 36) page 5 13

²⁸⁵ Draft White Paper page 74

²⁸⁶ Draft White Paper page 74

²⁸⁷ Sec 152 (1) (a) – (2)

²⁸⁸ Draft White Paper page 74 read with sec 41 of the Constitution

reasonable effort to settle disputes and exhaust all other remedies before approaching a court to resolve a dispute.²⁸⁹ The national Government must support municipalities in addressing situations that lead to non-performance. This includes mechanisms that will allow it to act more decisively in respect of municipalities.²⁹⁰ Where water services are provided by other Water Service Providers (WSP) such as Water Boards (WB) as provided and defined by the WSA²⁹¹ in terms of a contract between Water Service Authority (WSA),²⁹² the National Government (DWAF) has to regulate delivery of services ensuring that water is delivered in quality fit for human consumption and that such use will also take into account the ecological needs. It is the function of DWAF to see to it that water resources are not exploited but rather used beneficially and equally distributed to all people.

The enforcement of the constitutional rights is not limited to these regulatory principles. As said above, the right to water gives rise to judicial processes.²⁹³ Failure to implement or provide the basic rights to the people result in people taking legal action against the Government to enforce the realization of the right. The first Constitutional Court decision that actually illustrated how the rights in the Constitution are enforced is the *Grootboom*²⁹⁴ decision. In *Grootboom* the Constitutional Court stated that, in order for Government policy to pass the constitutional muster dictated by the inclusion of socio-economic rights, those whose needs are most urgent couldn't be ignored.²⁹⁵

The interconnectedness of the rights and the Constitution as a whole had to be taken into account when interpreting the socio-economic rights and, in particular, in determining whether the State had met its obligation.²⁹⁶ In dealing with the constitutional rights, the real question is whether the measures taken by the State to realise the right afforded were reasonable.²⁹⁷ Whether the measures are reasonable depends on whether it would be necessary to consider the problem in hand in its social, economic and historical context and to consider the capacity of the institutions responsible for implementing a program.²⁹⁸ A reasonable

²⁸⁹ Draft White Paper page 74

²⁹⁰ Draft White Paper page 74

²⁹¹ *Water Service provider means any person who provides water services to consumers or to another water service institution, but does not include a water service intermediary*

²⁹² *Water Service Authority means a municipality, including a district or rural council as defined in the Local Government Transition Act, 1993 (Act No 209 of 1993), responsible for ensuring access to water services*

²⁹³ See analysis at paragraph 1.7.

²⁹⁴ *Government of the Republic of South Africa and Others v Grootboom and others* (2001) (1) SA 46

²⁹⁵ *J De Visser & Others* (fn 66) p- 30

²⁹⁶ *Grootboom* (fn 294) p- 49 (para D)

²⁹⁷ *Grootboom* (fn 294) p- 49 (para E)

²⁹⁸ *Grootboom* (fn 294) p-50 (para B)

programme had to be balanced and flexible and make appropriate provision for attention to the problem and to short, medium and long term needs.²⁹⁹ It must be noted that reasonableness has to be understood in the context of the Bill of Rights as a whole, especially the constitutional requirement that everyone be treated with care and concern and the fundamental constitutional value of human dignity.³⁰⁰ In order to strike the balance between the needs and resources, measures taken must be calculated to attain the goal expeditiously and effectively.³⁰¹ The reason for that is that these rights had to be realised against the people who are in desperate need³⁰² to have access to the basic human rights, including water and sanitation. The absence of catering for those in desperate need may have been acceptable if programmes applied nationwide resulted in affordable cost for most people.³⁰³ In other words, where pricing programmes are introduced in water, such programmes must be affordable, taking into account the socio-economic circumstances of rural people. In ensuring that water services are delivered and people do get access to them equally, the national Government has a responsibility to ensure that it complies with the obligation imposed upon it by the Constitution.³⁰⁴

The Constitution therefore gives the rural communities a guarantee that they do have the right of access to basic water and sanitation. This is borne by the fact that it obliges the State to act positively to ameliorate these conditions and to devise and implement a coherent, coordinated program designed to provide access to the rights³⁰⁵.

The implementation and enforcement of the rights has also been subject to administrative enforcement mechanisms. Compliance of the State with the rights is measured against the Constitution.³⁰⁶ The question was put whether the Government was constitutionally obliged to provide Nevirapine, an antiretroviral drug that prevents transmission of disease from mother to child. Secondly, whether it had a legal duty to provide the drug. Thirdly, whether the programme adopted was a comprehensive, effective programme that reduced the transmission of HIV from mother to the child. And whether there were legally valid reasons why Nevirapine would not be provided to those mothers affected and whether the respondents were entitled to their action. The Constitutional Court started its judgment by stressing that socio-economic rights were justifiable and that that

²⁹⁹ *Grootboom* (fn 294) p- 50 (para C)

³⁰⁰ *Grootboom* (fn 294) p- 50 (para C)

³⁰¹ *Grootboom* (fn 294) p- 50 (para F)

³⁰² *Grootboom* (fn 294) p- 50 (para G)

³⁰³ *Grootboom* (fn 294) p- 50 (para H)

³⁰⁴ *Grootboom* (fn 294) p- 51 (para B)

³⁰⁵ *Grootboom* (fn 297) p- 51 (para B)

³⁰⁶ *The Government of the Republic of South Africa v Treatment Action Campaign 2002* (10) BCLR 1033(CC)

was not the issue, but these rights were.³⁰⁷ The basic question is whether measures taken by the State in its policy are reasonable and allow access to the rights entrenched in the Constitution. The Court's interpretation of the Bill of Rights has always been the historical and social context. The Court started by outlining the position of the courts in enforcing the Bill of Rights. The courts are given the power to enforce the provisions of the Constitution and must declare any conduct or act invalid to the extent of its inconsistency with the Constitution.³⁰⁸ In this case the Court said that it had to consider the claims for enforcement of the socio-economic rights on two occasions.³⁰⁹ On both occasions it was recognized that the State was under the constitutional duty to comply with the positive obligations imposed by the sections in questions.³¹⁰ It was stressed however that the obligations were subject to qualifications.³¹¹ However the difficulty confronting the State in the enforcement of these rights is the country's earlier history in addressing issues concerned with the basic needs of people.³¹² Thus in *Grootboom*³¹³, Yacoob J said

"This case shows the desperation of thousands of people living in deplorable conditions through out the country. The Constitution obliges the State to act positively to ameliorate these conditions. The obligation is to provide housing, health care, sufficient food and water, and social security to those unable to support themselves and their dependants. The State must also foster conditions enable citizens to gain access to land on an equitable basis. Those in need have a corresponding right to demand that this be done."

It is understood that this is a difficult task for the Government. The court held that it was conscious that it was extremely difficult for the State to meet those obligations in the conditions that prevail in our country. This is recognized by the Constitution, which expressly provides that the State is not obliged to go beyond available resources or to realise these rights immediately. This is an obligation that courts can and, in appropriate circumstances, must enforce.

Though the court acknowledges this difficulty it does not merely suggest that nothing could be done as the country obliged itself to enforce the rights and had to fulfil that obligation.³¹⁴ For the state party to be able to attribute its failure to meet at least its *minimum core* obligation due to a lack of available resources, it must demonstrate that every effort has been made to use all resources that are at its disposal in an effort to satisfy, as a matter of priority, those minimum obligations.³¹⁵ In the South African Constitution the *minimum core*

³⁰⁷ *The Government of the Republic of South Africa v Treatment Action Campaign* at para 25

³⁰⁸ Sec 172 (1) (a)

³⁰⁹ *The Government of the Republic of South Africa v Treatment Action Campaign* at para 25

³¹⁰ *The Government of the Republic of South Africa v Treatment Action Campaign* at para 25

³¹¹ Sec 27 (2)

³¹² *The Government of the Republic of South Africa v Treatment Action Campaign* at para 25s

³¹³ *Grootboom* supra

³¹⁴ United Nations Covenant on Economic, Social and Cultural Rights. Article 2 (1) obligates the state party to be able to take necessary steps "to the maximum of its available resources".

³¹⁵ Footnote supra

obligation is supported by the language used in the Constitution and attention is drawn to different sections.³¹⁶ *Minimum core* obligation does not imply rearranging the budget of the Government. What it provides is that the measures taken by the State must be evaluated against the needs of the citizens and the courts are empowered to see to it that the minimum obligation is met. The obligation also helps to strike the balance between judicial, legislative and executive functions to promote, respect and fulfil the constitutional mandate. These are different rights; however their nature in the implementation must be seen together in that each of them imposes at least an obligation upon the State, tested against the availability of resources. Government policies must be reasonable enough to deal with the problem in hand. In the case of water and sanitation services the DWAF has introduced a programme, the Strategic Framework for Water Services, September 2003 (discussed above). This policy is meant to deal with the progressive realization of water and sanitation services in the country as a whole. The basic questions that are to be asked in testing whether the Government is fulfilling its constitutional mandate are whether the provision of water and sanitation services is reasonable in the circumstances, and whether it is a comprehensive policy for the prevention of water and sanitation-related problems such as HIV/Aids and cholera. These health-related diseases are the result of a lack of clean water and proper sanitation services. In *re Certification Judgment*³¹⁷ the Court held that although section 26 (1) did not expressly say so, there was at the very least a negative obligation placed upon the State and all other entities and persons to refrain from preventing or impairing the right of access to adequate housing. The right to water and sanitation as defined by the strategic framework³¹⁸ at least imposes a negative obligation upon the State and all other entities to refrain from preventing or impairing the functioning of the right.

However, though the right to water and sanitation places a duty upon the State to progressively realise this right, this is not an automatic and immediately enforceable right³¹⁹ The beneficiary is also under an obligation to use his or her own resources to fulfil this right³²⁰ What this means is that beneficiary of the right must use the right in an effective, sustainable and equitable manner so that its utilization does not at the same time

³¹⁶ Section 9 (2), 24 (b) 25 (5) and 25 (8), Equality includes the full enjoyment of all rights and freedoms. To promote the achievement of equality, legislative and other measures designed to protect or advance persons, or categories of persons, disadvantaged by unfair discrimination may be taken. To have environment protected, for the benefit of present and future generations, through reasonable legislative and other measures. The State must take reasonable legislative and other measures, within its available resources, to foster conditions, which enable citizens to gain access to land on an equitable basis. No provision of this section may impede the State from taking legislative and other measures to achieve land, water and related reform, in order to redress the results of the past racial discrimination.

³¹⁷ In *re Certification of the Constitution of the Republic of South Africa, 1996 (10) BCLR (1253) (CC)*

³¹⁸ Strategic Framework defines water supply services and /or sanitation services or any part thereof. In this Strategic Framework the term is generally used in its inclusive sense

³¹⁹ De Visser (fn 66) p- 32

³²⁰ De Visser (fn 66) p- 32

compromise other beneficiaries (environment) dependent on the resource. The ecological system is protected by the Constitution. It would not be appropriate to condone the actions of humans to use water resources to an extent that it compromises the natural environment. The State has to create opportunity for the beneficiary to realise the right,³²¹ and has the overall responsibility to see that water is also protected,³²² as it has the duty and responsibility to ensure that the environment is protected.



³²¹ De Visser (fn 66) p- 32

³²² Sec 24 of the Constitution protects the environment against human activities.

3.4. Legislative perspective

3.4.1. Water Services Act 108 of 1997

The WSA was a result of the constitutional mandate of the State to progressively realise the constitutional rights of access to water and sanitation. This Act refers to these rights as basic water supply and sanitation by defining basic water supply and basic sanitation in its definition section,³²³

“Basic water supply” means the prescribed standard of water supply services necessary for the reliable supply of a sufficient quantity and quality of water to households, including informal households, to support life and personal hygiene.

Basic sanitation is the prescribed minimum standard of services necessary for the safe, hygiene and adequate collection, removal, disposal or purification of human excreta, domestic wastewater and sewage from households, including informal households.

Consumer is defined as any end user who receives water services from a water services institution, including an end user in an informal settlement.

The underlying rationale of the provisions of this Act is that in the old South Africa there was no national legislation dealing with water supply and sanitation water services.³²⁴ Lack of national legislation to regulate the use and access to water and sanitation placed an unreasonable burden on people.³²⁵ The Act recognizes the right of access to basic water supply and basic sanitation and the duty to ensure sufficient water and an environment not harmful to health or well-being, while at the same time it acknowledges that it is the responsibility of all spheres of government in ensuring that these services are provided efficiently and equitably and used in a sustainable manner.³²⁶ In its formulation and area of application the Act is aimed at providing access to water and sanitation through water and sanitation supply services. Its focus is on the installation of the infrastructure such as dams and canals for water and sanitation services. Though the Act focuses on water infrastructure installation, water in these dams and canals has to be managed in accordance with the principles of water resource management.³²⁷ Because the Act was promulgated after the 1994 White Paper on Water Supply and Sanitation, which laid down policy principles that assumed a context of universal human rights and the equality of all persons regardless of race, gender, creed or culture,³²⁸ it considered that the ecological

³²³ WSA Chapter 1

³²⁴ Glazewski (fn 36) p- 537

³²⁵ Glazewski (fn 36) p- 538

³²⁶ WSA preamble

³²⁷ WSA preamble

³²⁸ White Paper on Water Supply and Sanitation of 1994, Principle 8, it is necessary to ensure that the environment is considered and protected in all development activities, read with Principle 7, water and sanitation development are not possible in isolation from

system be given protection in the use of water, and water utilization be managed in an integrated manner.³²⁹ This piece of legislation provides a framework and guidance to local municipalities to supply water and sanitation services in their respective areas.³³⁰ Local authorities are established as in WSA³³¹ and are given responsibilities and duties in terms of the Act.³³² Their responsibilities and duties are qualified in terms of the availability of resources, the need to an equitable allocation to all consumers and potential consumers, and the need to regulate access to water services in an equitable way.³³³ What is remarkable about this Act is that it places a duty upon consumers to pay reasonable charges, which must be in accordance with any prescribed norms and standards for tariffs for water services.³³⁴ There is a duty of care placed upon consumers -- when utilizing water resources they must conserve water.³³⁵

It is important to note that while the Act was specifically promulgated for purposes of water services delivery, it takes into account the fact that the country's water resources are scarce. This is why it provides for conservation, sustainability and efficient use of water resources. The question can be asked as to how the resources are protected and who must ensure that water resources are protected. The Act provides for institutions that will ensure service delivery and at the same time ensure the protection of the resources.



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

³²⁹ Sec 2 (a)

³³⁰ Glazewski (fn 36) p- 539

³³¹ See definition of water services authority

³³² Sec 11(1), every water service authority has a duty to all consumers or potential consumers in its area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to water services

³³³ Sec 11 (2) (a) – (c)

³³⁴ Sec 11 (2) (d)

³³⁵ Sec 11 (2) (e)

3.4.2. Institutions under the WSA

Institutions under the Act are defined as any municipality, including a district council³³⁶ or transitional rural council³³⁷ as defined in the Local Government Transition Act³³⁸ that is responsible for ensuring access to water services. Water service authorities are obliged to prepare draft Water Services Development Plans (WSDP).³³⁹ These WSDP give an indication of the physical attributes of the area, the size and distribution of the population, time and framework for plan including implementation programme, the existing water use by industries, effluent disposed, number of persons without basic water supply and sanitation and the future provisions of water services.³⁴⁰ WSA can enter into a contract with other Water Service Institutions (WSI) such as water boards for water service delivery in terms of which specific obligations are agreed to for water service delivery.³⁴¹

The provisions of the Act are more health-focused. However it is interpreted to include environmental protection because it places a responsibility upon local government to ensure that water and sanitation services are sufficient and not harmful to the environment. Moreover, local authorities must ensure that it discourages inappropriate waste disposal. Local authorities must ensure that they internalize the external costs of the environment. In other words water and sanitation services must contribute positively to the environment.³⁴² NEMA has a very important role in the protection of natural resources as national legislation.



³³⁶ District Council a service council, sub-regional council, regional council or district council

³³⁷ Transitional rural council means a transitional council for a rural area of local Government

³³⁸ Act 209 of 1993

³³⁹ Sec 12- Every water service authority must, within one year after commencement of this Act- (a) as part of the process of preparing any integrated development plan in terms of Local Government Transition Act 209 of 1993 (b) separately, if no process contemplated in paragraph (a) has been initiated, prepare – (i) a draft water service development plan for its area of jurisdiction; and (ii) a summary of that plan. (2) the Minister may extend one- year period of a water services authority in consultation with the Minister for Provincial and Constitutional Development and the relevant Province.

³⁴⁰ Sec 13 (a) – (g)

³⁴¹ Glazewski (fn 36) p- 539

³⁴² Section 4 (i) the social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment

3.5. National Water Act 36 of 1998

The NWA is national water legislation which is underpinned by the Constitution. Fundamental principles of the Constitution³⁴³ give effect to the purpose of the NWA. Though the Constitution places the obligation upon the State to progressively realise the rights in it, the ultimate responsibility is on the Minister to ensure that water is allocated equitably and used beneficially in the public interest, while promoting environmental values.³⁴⁴ By virtue of the Constitution and the legislative mandate, the Minister has the power to regulate the use, flow and control of all water in the Republic²⁴⁵ in an integrated manner. The ultimate responsibility of the Minister does not however exclude other organs of state from responsibility concerning water resources. All organs of state³⁴⁶ as defined by the Constitution are obliged to fulfil the constitutional obligations. In the water and environmental context the NWA is the legislation that enables the Minister to fulfil and implement the constitutional obligations. This means that water use has to be in accordance with the national laws and the Government has a primary responsibility of public trustee to water resources.³⁴⁷ Despite the controversy around the principle of equality -- that authorities when charging for water use infringe upon this principle -- it is still the basic principle in our water law. Courts have in many occasions interpreted the principle to mean that the State cannot differentiate in water service delivery to those previously disadvantaged but may differentiate when charging for water use.³⁴⁸ Secondly this differentiation is justified on the basis of the nature and legal status of water resources. Thirdly, our water resources are vulnerable in relation to their utilization. Lastly water is a national resource; the State might provide its own measures from acts and legislation. The ultimate reason being that our water resources are at a stage where caution has to be applied in their utilization. Groundwater for example is currently facing a

³⁴³ Sec 2, the purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that take into account amongst others factors- (a) meeting the basic human needs of present and future generations; (b) promoting equitable access to water; (c) redressing the results of the past racial discrimination; (d) promoting the efficient, sustainable and beneficial use of water in the public interest; (e) facilitating social and economic development; (f) providing for growing demand for water use; (g) protecting aquatic and associated systems and their biological diversity; (h) reducing and preventing pollution and degradation of water resources; (i) meeting international obligations; (j) promoting dam safety; (k) managing floods and droughts, and for achieving this purpose, to establish suitable and to ensure that they have appropriate community, racial and gender representation

³⁴⁴ Stoops (fn 44) p- 250

²⁴⁵ Stoops (fn 44) p- 250

³⁴⁶ Constitution of the Republic of SA, sec 239

³⁴⁷ Sec 3 (1) As a public trustee of the nation's resources the National Government, acting through the Minister, must ensure that water is protected, used, developed, conserved and controlled in a sustainable manner, for the benefit of all persons and in accordance with its constitutional mandate (2) without limiting subsection (1) the Minister is ultimately responsible to ensure that water is allocated equitably and used beneficially in the public interest, while promoting environmental values. (3) The National Government, acting through the Minister, has the power to regulate the use, flow and control of all water in the Republic

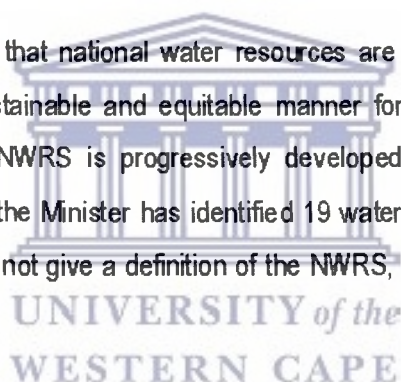
³⁴⁸ *City Council of Pretoria v Walker* 1998 (3) BCLR 257 (CC)

problem of over-abstraction and for that reason the State may differentiate charges and restrict its use amongst water users. Sustainable utilization of water resources has to guide water management and utilization. Differentiation does not mean that the State can deny people the basic right to water and sanitation,³⁴⁹ not even those complaining about differentiation. The State will regulate the utilization thereof. This illustrates that, although the State can differentiate in the utilization of water resources, it cannot deny access to the basic minimum (25 litres per person) as envisaged in the WSA.

However, it is essential that, together with the realisation of the water right, mechanisms should be put in place to monitor water utilization – to prevent people over-utilizing or exploiting the resource. This is why the NWA introduces mechanisms that will ensure that water is used optimally. Amongst the mechanisms introduced by the Act is the National Water Resource Strategy (NWRS)

3.5.1. National Water Resource Strategy (NWRS)

One of the tools used to ensure that national water resources are protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner for the benefit of all people, including the environment, is the NWRS.³⁵⁰ NWRS is progressively developed after public consultation and must be reviewed after 5 years. To date, the Minister has identified 19 water management areas, covering the whole country.³⁵¹ The Act however does not give a definition of the NWRS, but its definition can be ascertained from its objectives³⁵², which include:



³⁴⁹ *Manqele v Durban Transitional Metropolitan Council* [2002] 2 All SA 39/ 2002 (6) SA 423 (D)

³⁵⁰ A Proposed National Water Resource Strategy for South Africa (this document is available at DWAF regional offices or at www.dwaf.gov.za)

³⁵¹ The Water Resources Management Framework, Part 1 2003

³⁵² Contents of National Water Resource Strategy: The national water resource strategy must, subject to section 5(4) (a) - (a) set out the strategies, objectives, plans guidelines and procedures of the Minister and institutional arrangements relating to the protection, use development, conservation, management and control of water resources within the framework of existing relevant Government policy in order to achieve – (i) the purpose of this, Act; and (ii) Any compulsory national standards prescribed, under section 9 (1) of the Water Services Act 108 of 1997 (b) Provide for at least – (i) the requirements of the Reserve and identify, where appropriate, water resources from which particular requirements must be met; (ii) international rights and obligations; (iii) actions to be taken to meet projected future water needs, and (iv) water use of strategic importance; (c) establish water management areas and boundaries; (d) contain estimates of present and future water management; (e) state the total quantity of water available within each water management area; (f) state water management area surpluses or deficits; (g) provide for inter catchment water transfers between surplus water management areas and deficit water management areas; (h) set out principles relating to water conservation and water demand management; (i) promote the management of catchments within a water management area in a holistic and integrated manner. (2) in determining a water management area I terms of subsection (1) (c), the Minister must take into account (a) watercourse catchment boundaries; (b) social and economic development patterns (c) efficiency considerations; and (d) communal interests within the area in question.

- The establishment of institutions to undertake water resource management.³⁵³
- Determine the inter-relationship between institutions involved in water resource management.³⁵⁴

In order to give effect to the provisions of this Act the DWAF is given a responsibility to administer all aspects of the NWA delegated to it by the Minister or Director General (DG)³⁵⁵ in order to give effect to the principle of sustainable use and equitably distribution of the resource. As the various water resource management institutions are established and the responsibility and authority for water resource management is delegated or assigned to them, the department's role will change.³⁵⁶ It will focus on national policy, regulatory framework for water resource management and ensuring that other institutions are effectively fulfilling their roles and responsibilities.³⁵⁷ The legal status of the NWRS is binding on all authorities and institutions exercising powers or performing duties under the Act. It is also aimed at explaining the implementation of the NWA.³⁵⁸ The reserve, quantity, present and future water requirements in South Africa, actions to be taken to meet the future water needs, principles relating to water conservation and water demand, objectives to be achieved in respect of water quality through classification system and the promotion of integrated and holistic water management at catchment level are all explained in the NWRS. In the rural context, the department has to co-operate with other departments to ensure that the management of water resources can contribute to the Integrated Rural Development Programme, with particular emphasis on interventions to eradicate poverty.³⁵⁹

Integrated Rural Development Programme (IRDP) includes intervention in:³⁶⁰

- Modifying water resources management programmes and priorities, if necessary, to account for the priority areas identified for the Programme.
- Ensuring that rural development features strongly in catchment management strategies.
- Identifying rural water needs and opportunities, and making specific allowances for rural development and livelihoods in re-allocating water by compulsory licensing. In particular, identifying potential rural users, in addition to registered users, in calling for license applications during compulsory licensing.

³⁵³ Section 6 (j)

³⁵⁴ Sec 6 (k)

³⁵⁵ Chapter 2, NWA, Part 1 requires the progressive development, by the Minister, after consultation with society at large, of a national water resource strategy. The national water resource strategy provides a framework for the protection, use, development, conservation, management and control of water resources for the country as a whole. It also provides for the framework within which water will be managed at regional or catchment level, in defined water management areas. The national water resource strategy, which must be formally reviewed from time to time, is binding on all authorities and institutions exercising powers or performing duties under this Act. See also section 75 part 4: powers of the Director General and Chapter 7 establishment of the CMA by the Minister

³⁵⁶ Water Management Institutions Overview, September 2003

³⁵⁷ Water Management Institutions Overview, September 2003

³⁵⁸ A Proposed National Water Resource Strategy for South Africa (this document is available at DWAF regional offices or at www.dwaf.gov.za)

³⁵⁹ DWAF- Proposed NWRS, Summary August 2002

³⁶⁰ DWAF Proposed NWRS

- Ensuring community representation on the management bodies of water management institutions.

3.5.2. Catchment Management Agencies (CMA) and Catchment Management Strategies (CMS)

Catchment Management Agencies present a second tier of the water resource management framework. CMA is a statutory body created in terms of the NWA³⁶¹. It is established through public consultation and the participation of interested persons through steering committees where they make submissions through proposals, written or oral. Until the CMA is finally established, the interim Governing Board continues to assist with the various activities.³⁶² Following proposals they are evaluated and after such evaluation they are submitted to the Minister for approval, after which they are published in the Government Gazette. A CMA is established in each of the 19 water management areas.³⁶³ CMA must establish a CMS in its management area. CMS must contain the provisions for the protection, use, conservation and management of the water resource.³⁶⁴ They are responsible for water resource planning at catchment level and most water resources management activities, such as the licensing of water use and discharge where delegated by DWAF.³⁶⁵ Furthermore they monitor abstraction, collect abstraction and discharge fees, monitor water quality and oversee land use activities as this affects water management.³⁶⁶ DWAF will fulfil the role of the CMA where those are not yet established.³⁶⁷ CMA has inherent powers as a statutory body. This means that a CMA can do all things an individual can do, such as open a bank account, and enter into a contract with suppliers and borrowing money.³⁶⁸ When performing their functions (initial functions)³⁶⁹ a CMA needs to:

- Redress the results of past racial and gender discrimination
- Achieve equitable access to water resources
- Achieve co-operation and consensus in the management of its water resources

³⁶¹ CMA is established in terms of Part two of the NWA section 8. Established for the purpose of protection, use, development, conservation, control and management of water resources

³⁶² Sec 77 NWA

³⁶³ Part 2 of the NWA requires every catchment management agency to progressively develop a catchment strategy for the water resource within its water management area. Catchment management strategies must be in harmony with the national water resource strategy. In the process of developing this strategy, a catchment management agency must seek co-operation and agreement on water-related matters from the various stakeholders and interested persons.

³⁶⁴ Sec 9 (c) A catchment management strategy must set out strategies, objectives, plans, guidelines and procedures of the catchment management agency for the protection, use, development, conservation, management and control of water resources with in its water management area

³⁶⁵ Strategic Framework, September 2003 para 3.1

³⁶⁶ Strategic Framework, September 2003 para 3.1

³⁶⁷ Strategic Framework, September 2003 para 3.1

³⁶⁸ Sec 79 (1) – (4) see also DWAF Publication, the Water Management Institutions Overview

³⁶⁹ Sec 80 see also DWAF Publication, the Water Management Institutions Overview

- Act prudently in financial matters

These functions are subject to review by the Minister because they are performed on behalf of the Minister. In other words the power is delegated³⁷⁰ to them by the Minister and he may lay down conditions or withdraw the function if it appears that CMA acts contrary to the conditions laid down by the Minister.³⁷¹

3.5.3. Water User Associations (WUAs)

The WUA is defined as a statutory body established by the Minister under the NWA. A WUA is a co-operative association of individual water users who wish to undertake water-related activities for their mutual benefit and is governed by a management committee.³⁷²

Its purpose is to enable people within a community to pool their resources (money, human resources and expertise) to more effectively carry out water-related activities. Through WUAs members benefit from addressing their local needs and priorities.³⁷³ WUAs are bodies corporate and have the powers of a natural person of full capacity, except those powers, which can only be attached to natural persons or are inconsistent with the NWA.³⁷⁴ (This means that WUAs can do all things that a natural person can do, open a bank account, enter into contracts, be sued by another person or sue on its own). As with other institutions the Minister establishes them, although the Act does not provide special circumstances when they must be established. It is likely though that the Minister can establish or initiate WUAs in the public interest.³⁷⁵ Proposals for their establishment are performed in terms of section 91³⁷⁶ of the Act in which it must fulfil the requirements under the said section. As bodies corporate they have their own constitution,³⁷⁷ in terms of which all necessary information in terms of the Act should be provided in their constitution. The Minister will support the WUA in matters such as guidance, defining the area of operation, determining the nature and extent of water resources to be controlled and the powers and functions which will need to be delegated to the WUA.³⁷⁸ The Minister may

³⁷⁰ Sec 86

³⁷¹ The Minister may intervene and disestablish a CMA or make changes for reasons such as the need to reorganize water management institutions for more effective water resource management. See section 87

³⁷² *Water Management Institutions Overview* part 3

³⁷³ Chapter 8 of the NWA provides that WUA are established at a localized level and their effective purpose is not primarily water management unlike CMAs

³⁷⁴ Sec 94 (1) (a) (b)

³⁷⁵ See *Water Management Institutions Overview* at page 28

³⁷⁶ Sec 91 (1) – (a) –(h)

³⁷⁷ Sec 93

³⁷⁸ *Water Management Institutions Overview* at page 32

also give financial assistance subject to the condition that there is a need for equity, transparency, redressing the results of the past racial and gender discrimination, and subject to the financial position of the recipient and the need for water resource protection.³⁷⁹ These measures should be in place in order to ensure that WUA are kept within the spirit of the Constitution as the right to basic water and sanitation is a constitutional right and must be exercised according to the principles of the Constitution.³⁸⁰ Lastly and more importantly is their responsibility in relation to the resource. They must perform their functions and ensure that they prevent water from being wasted, that they remove or rearrange any obstruction unlawfully placed in water resources. Also, to prevent any unlawful activity that is likely to reduce the quality of water, they should supervise and regulate the flow discharge and clear channels in order to reduce the risk of damage to land in the event of floods. The watercourse should be changed back to the previous course where it has been altered through natural causes.³⁸¹

All water resources are subject to a single regulation and introduction of this framework for water resources serves to maintain the amount of water available for human and environmental needs.³⁸² In the case of groundwater, sustainable groundwater abstraction depends to a large extent on adequate recharge to replace the water being removed from the aquifer system.³⁸³ Water management is essential when groundwater is recharged.³⁸⁴ Quantification of groundwater recharge is required on a catchment basis for assessing the sustainable use of groundwater in the context of the NWA.³⁸⁵ The mechanisms to abstract groundwater must include the reserve because once the reserve is determined and the existing lawful use is determined, the amount of groundwater available for other activities can be allocated.³⁸⁶ A resource must be protected from pollution. Effects of pollution must be prevented and remedied.³⁸⁷ The owner of land or a person occupying or in control of land who causes pollution to a water resource, must take all reasonable measures to prevent any such harm from occurring, continuing or recurring.³⁸⁸ These may include measures to: cease, modify or control any act or process causing the pollution, comply with any prescribed waste standard or management practice,

³⁷⁹ Water Management Institutions Overview at page 33

³⁸⁰ Sec 1 (d) The Republic of South Africa is one sovereign democratic state founded on the principles, to ensure accountability, responsiveness and openness

³⁸¹ See Water Management Institutions Overview at page 33-34

³⁸² Introduction to the National Water Resource Strategy, Minister R. Kasril's statement, August 2002 at p 1.

³⁸³ DWAF Project (fn 207) para 3.3.

³⁸⁴ DWAF Project (fn 207) para 4.2. 3a

³⁸⁵ DWAF Project (fn 207) para 4.2. 3a

³⁸⁶ DWAF Project (fn 207) para 4.2. 3a

³⁸⁷ Stoops (fn 44) p- 256

³⁸⁸ NWA, sec 19 (1), read with sec 28 of NEMA

contain or prevent the movement of pollutants, eliminate any source of the pollution, and remedy the disturbance to the bed and banks of the watercourse.³⁸⁹ Failure to perform these obligations may result in the catchment management directing such person who fails to take the required measures to commence taking specified measures before a given date, to diligently continue with those measures and to complete them before such a given date.³⁹⁰ If the person fails to comply with the directive of the catchment management or the WUA takes measures to remedy the situation, the agency may recover all reasonable costs incurred.³⁹¹

3.5.4. Administrative Law Perspective

Administrative law is the powerful tool for the enforcement of Economic, Social and Cultural Rights (ESCR) in order to have an effective system of regulation in the water resource management and the right of access to basic water and sanitation services. Our water laws have been subjected to judicial administration and this has resulted in maladministration in the enforcement of conditions, procedures and structures in the decision making process.³⁹² The implementation of economic, social and political rights has been enforced through judicial processes. However, not all issues arising from the implementation of these rights will require judicial processes or be strictly legal in character.³⁹³ The mechanism to enforce these rights as described by the two authors through administrative law is the reporting mechanism in which states had to progressively report their actions.³⁹⁴ States had to take initiatives in the realization of ESC rights, through which they are held accountable. States have an obligation to teaching, culture and information on the ESC rights. States in their respective territories are obliged to fulfil, respect, and promote the ESC in the public interests.³⁹⁵ Information required for the protection of natural resources is necessary in this regard because decisions taken may have a huge impact on the resource and curtail the right of access to basic services. Professor van Reenen argues that scientific, capacity information to organization and institutions is relevant to the solution of environmental problems and can usefully be distinguished because such knowledge is directed to the problem identification.³⁹⁶

³⁸⁹ NWA, sec 19 (2)

³⁹⁰ NWA, sec 19 (3)

³⁹¹ Stoops (fn 44) p- 257

³⁹² T.P. van Reenen, *Environmental Policy- Making Administration* (1994) 1 SAJELP at page 35 -36

³⁹³ Asbjorn Eide, Catarina Krause and Allan Rosas, *Economic Social and Cultural Rights*, Netherlands 1995 Article by Allan Rosas and Martin Scheinin *Implementation Mechanisms and Remedies* at page 355. International monitoring of the Covenant on Economic, Social and Cultural Rights (CESCR) rests completely on reporting procedure established by Article 16 of the Covenant

³⁹⁴ Article 9 (1) States had to report to the United Nations Committee on Economic, Social and Cultural Rights which is the international body that oversee the states responsibilities in the international community read with Article 7 of the Covenant which provides for the obligation upon states to teach, culture and provide information on the ESC rights.

³⁹⁵ T.P. van Reenen (fn 392) p- 38

³⁹⁶ T.P. van Reenen (fn 392) p- 39

It is therefore important that power exercised in the public interest by relevant authorities displays this knowledge. Capacity knowledge in this regard plays a prominent role in the sense that the authority should be aware of the effect of the decision taken by him and understand the position of the law. Administrative law provides for the principle of accountability, fairness, responsiveness, reasons and equality in decision-making process.³⁹⁷ It is essential that these principles be given attention in all cases.

3.6. Conclusion

Comprehensive legislation is in place. It is acknowledged that South African water law is striving towards a brighter future in which all its citizens are afforded their constitutional rights. This is evident from the fact that in 2001 there were 44.8 million people living in South Africa, all of whom used domestic water services, while 5 million (11 per cent) had no access to safe water supply and a further 6.5 million (15 per cent) had no access defined basic services level and about 18.1 million people (41 per cent) did not have adequate sanitation services (2001 census).³⁹⁸ This is a considerable improvement on earlier statistics and a great achievement. It is hoped that the statistics for those still without these basic services can reasonably decrease in the coming years. However it is gathered from this research that there are problems that need to be looked at, specifically the implementation of water conservation and protection methods, which involve a great deal of planning. Structures and procedures have been adopted mainly in order to deal with management issues of water resources as a whole. All agencies established in terms of the legislation are constitutionally obliged to protect human interests and natural resources. This is a systematic fashion of management, conservation and sustainable utilization of natural resources. Guiding frameworks have been adopted for the agencies in order to put legislation and policy objectives in reality. However, the exploitation of natural resources by human activities still continues. Lack of knowledge in the community is still the major problem. People are simply not aware of their negative actions towards natural resources. These resources are still subjected to serious stress because of human activities. Groundwater per se is experiencing over-abstraction. The newsletter from DWAF 2004³⁹⁹ reported a case of over-abstraction of groundwater in Tosca and Verleegen situated in Kalahari region of South Africa close to the Botswana border. The area has a very low and erratic rainfall, on average less than 400 mm per annum, with years of dry cycles followed by wet cycles. There are no perennial streams.

³⁹⁷ T.P. van Reenen (fn 392) p- 38

³⁹⁸ Strategic Framework for Water Services (fn 145) at page 3

³⁹⁹ DWAF News letter (fn 132) p-8

Education still lacks on the side of the authorities. The community should, wherever possible, be informed and educated about the impact of their actions upon their environment and the ecology at large.



CHAPTER 4

Towards Effective Utilization of Groundwater

4. Conclusion and Recommendations

It has emerged from this research that it is not enough to set up standards of protection and institutions and procedures to find possibilities whether groundwater is a possible option for the realization of rights to basic water and sanitation. The basic issue is how to balance the demand put on groundwater by different users to bring about sustainable utilization of groundwater as a natural resource.

4.1. Conclusion

This study demonstrates that the utilization of groundwater as an option for the realization of the right of access to basic water and sanitation could be successfully established and enhanced through comprehensive and flexible strategies. This could be effected by putting together multidisciplinary skills, ensuring that the rural communities have a voice, and by the Government opening a platform using policy and legal frameworks, by capacity building and leadership, by educating water users about caring for the country's water resources, and by assessing the projected impact and addressing the matter accordingly, and by finding alternative ways to deal with the problem of over-utilization of the resource.

It has also been shown that water and sanitation are socio-economic rights and are enforceable and promoted through legal and administrative actions. The different enforcement measures include engaging the people whose rights have to be realised, and exploring together possible options and alternatives aimed at protecting and sustaining the resource.

4.2 Recommendations

The challenge in the protection of groundwater as a natural resource remains its optimal utilization for the benefit of human and environmental needs, especially the utilization of groundwater for agricultural activities. It has transpired from this study that agriculture is the sector that uses groundwater the most. The study recommends a decrease in the utilization of groundwater for agricultural purposes so that the demand between the different users can be balanced on an equal and fair footing.

Charges in the process of water and sanitation delivery play a very important role in resource management. Simply providing lots of water without investing billions of rands will aggravate the problem. The right of people to a healthy environment will be made senseless by misuse of the resource.

Though it has transpired that water charges play a prominent role in proper management of water, there are challenges that need to be cleared by the legislature.

Firstly, whether this mechanism can pass the constitutional muster, as some commentators view it as unconstitutional because it restricts access to a constitutionally protected right. The use of machines that automatically restrict the flow of water without any national legislative authority is also a challenge that needs to be addressed urgently because Parliament has not yet approved the unconditional shut-off of water.

Secondly, it is questioned that the poor are charged the same or higher rates than privileged consumers and that municipalities continue to spend relatively much more on serving rich suburbs as opposed to Apartheid neglected areas. This puts a challenge to the Department to clearly outline the water charges provisions, especially in providing access to the previously disadvantaged communities while taking into account the protection of natural resources. In light of the above, the Department has to speedily resolve the contention that prepaid water meters might violate the constitutional right of those poor people who cannot afford to pay for the use of water, especially against the argument that there are other means of cost recovery that are regarded as less invasive of the rights of the poor.

It is recommended that the utilization of water by wealthy households that use water liberally for lawns and pools should decrease in order to effectively solve the water scarcity problems. Also that such wealthy households should pay more in order to contribute to the maintenance of piping. In this way the natural

environment may benefit from the resource and struggling families not find themselves denied basic services. Thirdly, there is a need to clarify the powers of local governments, as it is possible for them to assume full responsibility for service delivery in their respective jurisdictions. The recent policy provides for the possibility that local governments may with the coming into being of this policy assume full responsibility in ensuring service delivery. The challenge in this regard is to what extent local governments could exercise this power. Could it be justified that a local government cut its budget for water services where it has become unable to deliver essential water-related services to the people? Secondly, how could non-compliance be dealt with? For instance, who has to be held liable for non-compliance with the current effluent standards? The lack of progress with necessary upgrading and extensions at wastewater treatment is long overdue. How does the national department ensure that local governments spend funds committed effectively?

The free basic water of 25 litres per person per day is far too low and needs urgent attention. This basic service is regarded as not enough, especially to households of eight people. The 25 litres needs to be reviewed and increased because of social circumstances caused by factors like HIV/Aids and disability. Infected persons, adults and the disabled often require more water per day.

It must be noted however that this paper does not suggest that water must be provided free. It merely suggests that water charges are to be introduced so that we achieve sustainable utilization of the resource to the benefit not only of humans but the environment as well. To achieve equitable balance in the utilization of natural resources, it is recommended that all relevant circumstances be taken into account, including the economic position of rural people. Implement the current policy (Strategic Framework of 2003 discussed in 2.2.5 above) and give it reasonable time to test whether it does provide a solution.

It is also recommended that drilling boreholes be a priority. Furthermore local authorities should go out to these rural communities to observe the existence of boreholes and private companies should be actively involved in the drilling of boreholes.

The challenge remains with the local authorities as sphere of government close to the people to conduct awareness campaigns through which they should encourage people to approach their respective municipalities and request boreholes. The national Government should fund these campaigns. These campaigns should include educating the community how to use water sustainably so that it benefits the environment and that sanitation services should be maintained for their own benefit. Though it is the Government's primary

responsibility to ensure that water and sanitation services are delivered, it is also the people's responsibility to ensure that infrastructure is maintained and kept in good condition.

In view of the aforesaid, monitoring should be designed to give a detailed overview of existing situations in which the principal value of the environment is retained. The elaboration of policies should be clearly targeted, including the establishment of priorities that reflect the present social, economic and environmental circumstances. It therefore requires that policies should facilitate public scrutiny in the governance of natural resources and in the implementation and review of the relevant policies. An evaluation has to be made of the process towards the realization of the obligations imposed by the Constitution. A better understanding should be established of the problems and shortcomings that are encountered in the process of realization of the right of access to basic water and sanitation. The Government should facilitate the process and ensure full participation in and appreciation of the measures to be taken to promote the realization of the rights entrenched in the Constitution. Identification of the most indigent and marginalized communities should be speeded up, so that priority could be given to them.

Technical assistance is also a challenge. The Government should furnish assistance in every aspect concerning the drilling of boreholes. This means that efforts that promote one set of rights should take into account the existence of other rights. The promotion of social, cultural and environmental rights should ensure the activities are fully consistent with the enjoyment of the rights concerned. To put it differently, projects should avoid over-utilization of the resources that contravenes the national standards, or standards that promote and reinforce the protection of natural resources or discriminate against the previously disadvantaged communities.

Appendix 1

List of questions posed for interviews

1. In relation to other water resources (surface water), which is dominantly used for human needs? Do we need groundwater utilization for human needs and, if so, why would you recommend groundwater utilization especially for rural communities?
2. With regard to other methods of collecting water such as rooftop water harvesting, field water harvesting and others, would the use of these methods obviate/prevent the need for groundwater utilization for human needs?
3. How economically viable it is to extract groundwater?
4. Do you have statistics of groundwater consumption for the various consumer sectors -- industry, agriculture, human consumption for domestic purposes and ecological needs?
5. What is the percentage utilization of groundwater by ecological systems in relation to other water users?
6. Could the use of groundwater have an impact on the natural process of the hydrological cycle and how big would that impact be?
7. What are the parameters for sustainable utilization of groundwater?



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