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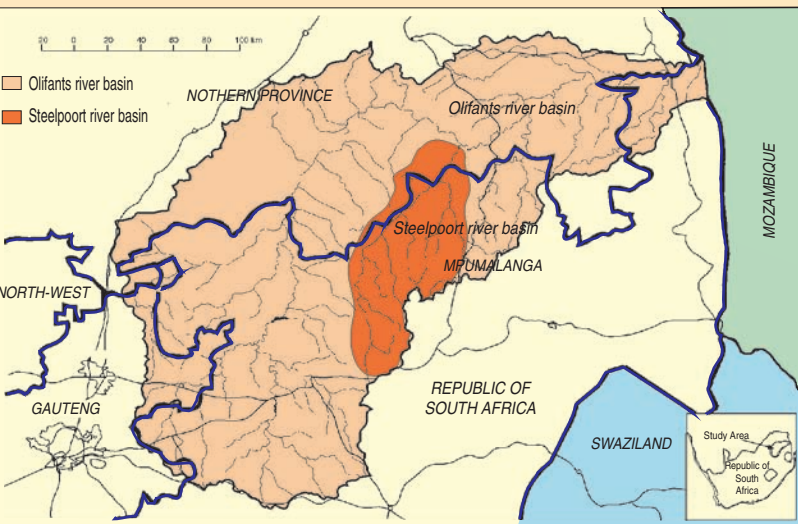
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WORKING PAPER 18

South Africa Working Paper No. 7



Policies, Legislation and Organizations Related to Water in South Africa, with Special Reference to the Olifants River Basin

H. Thompson
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and
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Working Paper 18

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Special Reference to the Olifants River Basin**

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Dedication

Working Papers 17 and 18 are dedicated to the memory of Dr. Jeffrey Brewer, who passed away in April 2001. Jeff provided assistance in technical editing and review of these papers, which is gratefully acknowledged in the text. This work, done in January 2001, was his last professional job for IWMI, carried out as a consultant. He had been a staff member at IWMI from December 1991 to June 1999. His former colleagues and friends were shocked and saddened by his sudden passing. Jeff was a good colleague and good friend who will be missed.

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Acronyms

CBO	Community-based organization
CMA	Catchment Management Agency
DWAF	Department of Water Affairs and Forestry
EMPR	Department of Agriculture Environmental Management Programme Report
HIM	Hydro-Institutional Mapping
IWMI	International Water Management Institute
NPDAE	Northern Province Department of Agriculture and Environment
NWA	National Water Act, 1998 (Act No. 36 of 1998)
TLC	Transitional local council
TRC	Transitional rural council
TrepC	Transitional representative council
WSA	Water Service Act, 1997 (Act No. 108 of 1997)

Foreword

The International Water Management Institute (IWMI) commissioned this introductory study on hydro-institutional mapping (HIM) of the Olifants river basin. HIM refers to the spatial and functional descriptions of all institutions using water in a basin in South Africa. It also includes the relationship between users created by shared water use.

The products of the study are as follows:

- ? A publication of HIM in a subbasin of the Olifants river in the Steelpoort river basin using a few case studies representing the different types of users (Working Paper 17).
- ? A description of the governmental institutions dealing with water before and after 1994. This background on previous and current institutions and policies at the different government levels is crucial to explain the situations one finds on the ground. Although this study centers on the Olifants river basin, the description is applicable to the rest of the country in broad terms (Working Paper 18).

The authors worked as a team from the outset but were responsible for particular chapters.

HIM Publication (Working Paper 17)

- Chapter 1. C. M. Stimie, coordinator (ARC-ILI)
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- Chapter 2. E. Richters (ARC-ILI)
C. M. Stimie
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- Chapter 4. E. Richters
- Chapter 5. C. M. Stimie

Institutions and Policies (Working Paper 18)

All chapters: H. Thompson (of Thompson & Thompson) with inputs from all the other authors.

The authors would like to express their gratitude to IWMI for making this study possible and for the direction provided throughout the study. They particularly acknowledge the substantive comments from Drs. Doug Merrey and Tushaar Shah, and the editorial assistance from Drs. Jeff Brewer and Doug Merrey.

We also trust that this study and similar studies will contribute to the efficient and fair management of the precious water resources in South Africa.

EXECUTIVE SUMMARY

The International Water Management Institute commissioned a project to set out the hydro-institutional mapping (HIM) for the Olifants river basin in Mpumalanga and the Northern Provinces in the Republic of South Africa. The project forms part of a collaborative research program to understand the institutional support systems for sustainable local management of water use in this basin.

The study is reported in two Working Papers. Working Paper 17 reports the findings of the HIM exercise. This paper contains the policies, legislation and organizations relevant for understanding of the HIM for the Olifants river basin. It also includes the historical development of the institutional framework in the basin, as this history has left a profound imprint on the South African society at large and is still dictating, in many cases, the interactions between the different organizations.

Water management consists of water resources management and the provision of water services, which two functions, although distinguishable, cannot be separated in practice. The objective of water resources management is to ensure that water resources are protected, used, developed, conserved, managed and controlled to achieve optimum and environmentally sustainable social and economic benefits. Water services, on the other hand, are the services necessary to enable water users to use water resources on a sustainable basis. Various organizations provide water resources management and water services. These include regulators, water-service providers, facilitators, conflict resolvers, water users and other interested groups.

The framework in which these organizations have to operate is very complex. The framework is also very dynamic due to, among other things, the political, social and economic development in South Africa during the last decade of the twentieth century. Various processes are under way to restructure and transform the existing organizations and to establish new ones. While organizations have emerged to play a role in water management, the roles of certain other organizations must still be resolved.

The government is now constituted into national, provincial and local spheres of government. The constitution states that these spheres are distinct, interdependent, and interrelated, and sets out the functional areas for each. Water resources management is an exclusively national government function. Managing waste-generating activities and the waste generated and regulating land uses that might affect water resources could, just as the provision of water services, be either an exclusively national, concurrently national and provincial, exclusively provincial or a local government function, depending on which sector and activities are involved.

The policies and activities of one sphere of government may impact on the responsibilities and functions of another. Therefore, all three spheres of government and all organs within each sphere must cooperate and consult with each other, respect the responsibilities of the others, and exercise powers and perform functions in such a way as not to encroach on the integrity of another. Furthermore, the different spheres and organs may only exercise those powers and perform those functions conferred on them.

The establishment of a catchment management agency for the Olifants river basin as well as the development of a catchment management strategy will assist greatly in achieving these ideals relating to water resources management and the provision of water services to support life and hygiene in the Olifants river basin. The implementation of the White Paper on local government and the development of water-service plans by water-service authorities, in terms of the Water Services Act, of 1997 will likewise assist in achieving these ideals.

CHAPTER 1

Introduction

1.1 Background

The International Water Management Institute (IWMI) commissioned a project in the Republic of South Africa to set out HIM for the Olifants river basin in Mpumalanga and the Northern Provinces. This project forms part of IWMI's collaborative research program to understand the institutional support systems for sustainable local management of water use in this basin.

The HIM for a river basin includes among others:

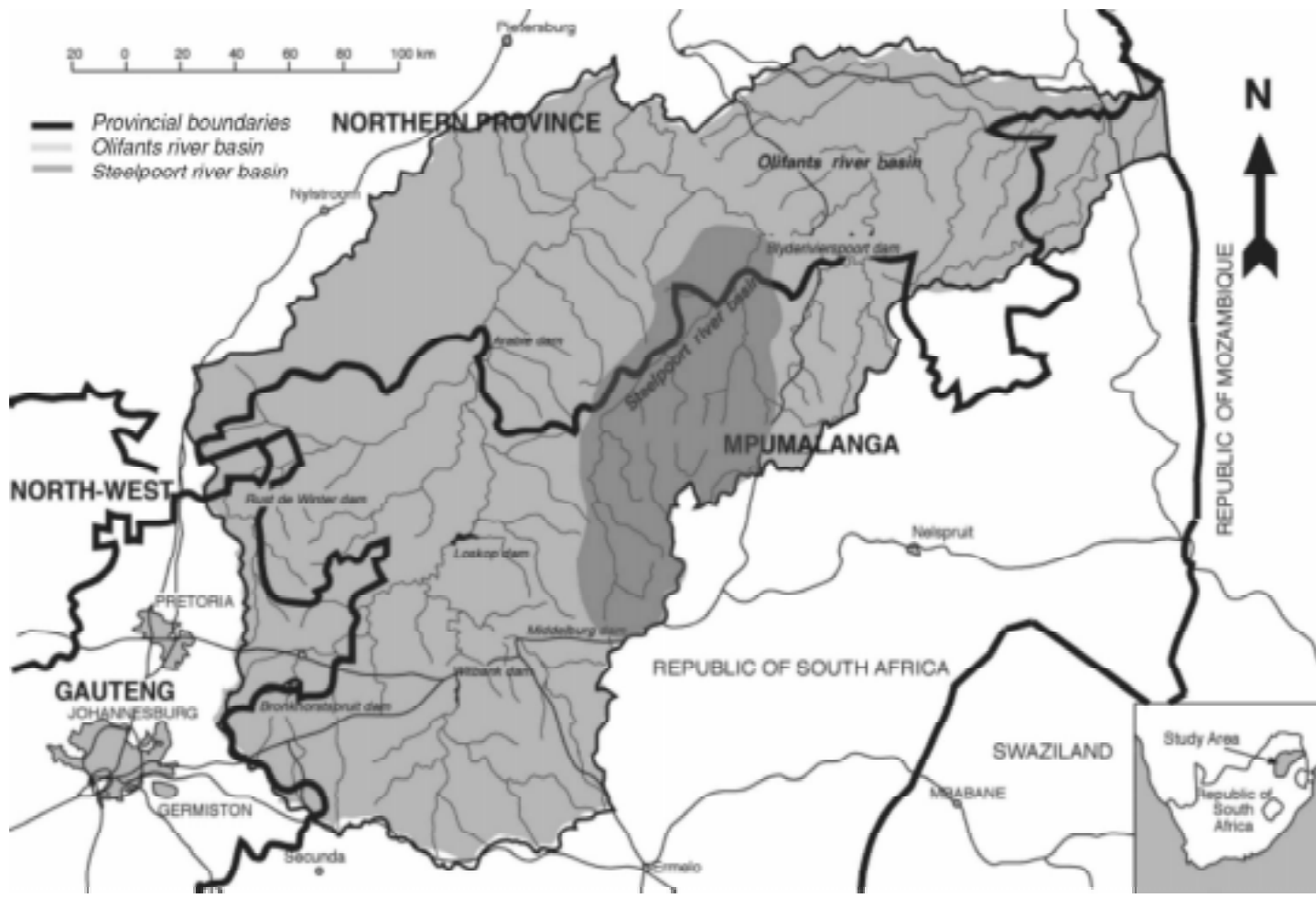
- An analytical description of the policies that influence hydro-institutional arrangements and interactions.
- An analytical description of water-related laws, in the case of the Republic of South Africa, the National Water Act, 1998 (Act No. 36 of 1998) (NWA) and the Water Services Act, 1997 (Act No. 108 of 1997) (WSA).
- Identification and mapping of the entire complex hydro-institutional relationship.
- An analysis of the various organizations in the public and private sectors engaged in hydro-management.

The team responsible for the project realized that it was not possible to execute the project within the time frame allocated and with the means available. After discussions with IWMI, it was decided to concentrate on one of the subbasins of the Olifants river basin, namely the Steelpoort river. The land use and water utilization and some of the water management problems experienced in the Steelpoort river basin are similar to those of the rest of the Olifants river basin. Various case studies were then done in the Steelpoort river basin to assist with setting out the HIM. Figure 1.1 shows the locality of the Olifants river and Steelpoort river basins.

After the first draft of the report for the project was submitted to IWMI, it was decided to separate the output of the project into two papers, namely:

- This paper containing the policies, legislation and organizations relevant to setting out the HIM for the Olifants river basin.
- A paper based on case studies done in the Steelpoort river basin containing:
 - a general methodology and framework for setting out the HIM for a river basin;
 - the HIM for some of the areas in the Steelpoort river basin where many of the inhabitants are poor and with limited, insufficient or no access to resources,

Figure 1.1. Locality map of the Olifants river and Steelpoort river basins.



information, services and enough water of good quality to support life and personal hygiene; and

- the results of the case studies done in the Steelpoort river basin.

1.2 Scope of This Paper

This paper contains the policies, legislation and organizations relevant to setting out the HIM for the Olifants river basin. It also includes the historical development of the institutional framework in the basin as this framework left a profound imprint on the South African society at large and is still dictating, in many cases, the interactions between the different organizations.

1.3 The Concept of HIM

It is necessary to analyze the concepts, “water management” and “institutions,” to give perspective to the role that policy, legislation and organizations play in setting out the HIM for a river basin.

1.3.1 Water management

“Hydro-” is defined in most dictionaries as “having to do with water.” The management of “having to do with water” (hydro-management, also known as water management) consists of water resources management on the one hand and the provision of water services on the other, which cannot be separated although they are distinguishable. The differences and the fact that they cannot be separated although they are distinguishable, should be taken into account when setting out the HIM for a river basin.

Water resources management

The objectives of water resources management are to ensure that water resources are protected, used, developed, conserved, managed and controlled in such a way as to achieve optimum, long-term, environmentally sustainable social and economic benefits for the society. The interactions and relationships between the following organizations and the society are of importance:

- First, organizations involved in the monitoring and regulating of the activities of the society that might impact on the water resources.
- Second, organizations involved in the monitoring and regulating of those activities that generate waste and the waste generated that might affect water resources.
- Third, organizations involved in the monitoring and regulating of different land uses and the activities associated with each land use that might affect water resources.

If done correctly, such monitoring and regulation could assist in achieving the objectives of water resources management and also assist in ensuring sustainable provision of water services for these activities.

Provision of water services

Water services are the services necessary to enable water users to use their water resources on a sustainable basis. Provision of water services therefore includes activities such as the abstraction, conveyance, treatment and distribution of water to water users; the collection, removal, treatment and disposal of waste generated due to the use of water; and the provision of resources, assistance and information associated with these activities. The provision of sustainable water services should be done in such a way as to ensure the achievement of the objectives of water resources management. This could be done as follows:

- First, putting in place an enabling framework for sustainable provision of water services to the different sectors. These sectors could be small-scale irrigation, feedlots, supporting life and personal hygiene, power generation, mining, etc.
- Second, putting in place a framework for assisting and monitoring the organizations responsible for and associated with the provision of water services.
- Third, the establishment of the necessary organizations or assigning the function to existing organizations to undertake sustainable provision of water services.

1.3.2 Institutions

“Institution,” with reference to HIM, refers to either the rules or an organization having to do with water, or both.

Rules

Rules consist of principles and norms governing the rights to, and the usage and protection of water resources, where the majority of the society feels committed. Any organization may make a rule, resulting in some being formal and others informal, and some legally enforceable but others not, depending on who makes the rule. Rules include policies, laws (including statutory, administrative and common law), ethics, morals, values and practices. Rules may even include religious norms and practices.

Organizations

An organization consists of a group of people who come together to achieve a common water management objective. An organization need not be a body corporate (legal person) and can be formed formally, informally, voluntarily, compulsorily, by law and with or without a constitution. The group can form an organization itself or another person or organization can form an organization. An organization can therefore be an organ of the State, voluntary body, association, forum, company or committee.

1.4 Methodology

This paper forms part of the project to set out the HIM for the Steelpoort river basin.

This paper was compiled mainly based on information obtained from the following sources:

- White Papers of the Government of the Republic of South Africa.
- Information obtained during field visits to set out the HIM for the Steelpoort river basin.
- Information on organizations obtained from the Internet and some discussions with them.
- Water resources planning reports of the Department of Water Affairs and Forestry (DWAF).
- Information obtained by one of the authors of this paper as a member of the project team to establish a catchment management agency (CMA) for the Olifants river basin.

The time and resources available did not allow discussions with the relevant role players to determine their actual role and perceptions regarding water management. Recently, South Africa went through a process of transformation and many of the new policies, principles and measures required due to the transformation must still be developed, accepted and put into practice. It is still unclear, in many circumstances, how this will happen and various viewpoints exist. Therefore, some of the points in this document might not necessarily be official government viewpoints, which are in practice also very difficult to determine. Even in specific organizations there seems to be contradictory viewpoints. The contents of this paper must, therefore, be seen rather as a way to understand HIM and to get it on the right track.

CHAPTER 2

Institutional Framework to 1994

2.1 Introduction

The institutional framework applicable in South Africa until 1994 left a profound imprint on the South African society at large. Until 1994, policies based on white (male) supremacy and racial segregation applied. These were replaced with a nonracial and nonsexist democratic system based on fundamental principles. However, the legacy of the previous framework is in certain cases still applicable, dictating the interactions between certain organizations, possibly for a long time to come. Therefore, to set out the HIM for the Olifants river basin, it is necessary to take into consideration the development of the previous institutional framework and how it was implemented.

This chapter sets out the institutional framework applicable in South Africa until 1994 and how it developed during the twentieth century.

2.2 Policy of Apartheid

Racial segregation was part of the social and economical pattern in South Africa from as early as the seventeenth century. The Blacks, for example, migrated from the North while the Whites came from the South. Each group occupied its own pieces of land, sometimes resulting in conflict. The Whites brought with them Western European cultures while the Blacks settled with much of their socio-political and economic systems intact. Black settlements were later known as “native reserves.” With the rise of the mining industry in the late nineteenth century, these became reservoirs of migrant labor, based on a regulated system of male Black workers migrating between the mines and the reserves.

The National Party came into power in 1948 on the platform of a policy of apartheid. The essence of this was that the different racial groups that made up the population of South Africa should be kept separate as far as possible. Through the years, this became an ideology, prescribing in some detail how South Africa should be governed and how constitutional development should take place. Racial segregation then became an explicitly formulated program.

Although race remained a central feature, culture and other aspects of ethnicity also played a role. Terms like “separate development” or “of separate freedom” were used to describe this policy. The framers of the policy saw it as a way to provide each race and ethnic group in the country a say in, and, indeed, complete control over, the running of their own affairs, while at the same time prohibiting dominance by any particular group. Over the years, the necessary structures were created to give effect to this policy. For example, national States and self-governing territories were established for the Blacks.

The “native reserves” were central to this policy, first, as a base for migrant workers and, second, to control the Blacks under a separate legal and administrative system. The Natives Land Act of 1913 demarcated rural areas for the White and non-White residence and ownership,

imposing severe restrictions on the property rights of the Blacks. The Act and subsequent legislation, in 1936, also restricted the Blacks to ownership of only 13 percent of the country. At that stage, Black people made up three-quarters of the population. Most of the demarcated areas for the Blacks were incorporated into the national States and self-governing territories.

The proponents of this policy argued that if this could be achieved, all the races that made up the population of the country would be able to live together in peace and harmony, but the implementation of the policy was widely seen as a means to oppress the Blacks. This policy was designed to guarantee political, social and economic domination of the country's White minority over the non-White majority population.

At the beginning of the 1990s, the national States and self-governing territories were home to over half the Blacks of South Africa and were characterized by extremely low incomes and high rates of infant mortality, malnutrition and illiteracy. South Africa had one of the most unequal distributions of income in the world, which strongly correlated with race, location and gender. In general, Black households were living below the official poverty line and the households headed by women were substantially worse off than those headed by men.

2.3 How Government Was Structured and Functioning

2.3.1 Constitutional matters

South Africa was constituted as a Union in 1910 through the unification of four independent areas as part of the British Commonwealth. These were the Zuid-Afrikaansche Republiek (the area known as Transvaal), the Republic of the Orange Free State, Natal and the Cape Colony. In 1961, South Africa broke away from the Commonwealth and became a Republic. Since the creation of the Union, there was a drive to make the highest legislative structure, namely Parliament, a body represented and elected by the Whites only. This was achieved in 1956. White supremacy prevailed until 1984.

In 1984, three houses were created in Parliament, a house each for the Whites, the Coloreds and the Indians. Representatives in each house were elected by the people belonging to that specific racial group. Each house made the laws applicable to its group (the concept of "own affairs"). All three houses together made the laws concerning all three groups (the concept of "general affairs"). Matters affecting the Blacks resided under the interests of general affairs. Parliament's membership was therefore extended to include the Coloreds and the Indians, but it continued to exclude the Blacks.

There was no fundamental law, for example a constitution, governing South Africa. Laws and actions could, therefore, only be tested against the common law. No fundamental law existed to determine, for example, whether any rights were being violated. The constitution made by Parliament in 1961 (when South Africa became a Republic) and again in 1984 (the creation of the three-house Parliament) were ordinary Acts of Parliament setting out certain arrangements as any other Act.

2.3.2 Government

The structure of government was based on the Westminster system as inherited from the British. The structure has changed over the years but it retained the following characteristics:

- A Parliament consisting of house(s) whose members were elected by constituencies. The majority party ruled while the minority party was the official opposition with the function of criticizing the policy of the government.
- A cabinet of ministers (with the leader of the majority party as the leader) consisting of members of the majority party and accountable to Parliament. A Minister was appointed to each Department of State.
- A State President who was politically neutral and acted on advice from the Ministers. (The neutrality faded in 1984 when the Prime Minister also became the State President.)
- The relationship between the State President, Prime Minister, Ministers and Parliament was regulated by unwritten rules known as conventions.

Until 1984, the Prime Minister (the leader of the majority party) appointed the Ministers. After 1984, the Prime Minister (who was now also the State President) only appointed the Ministers responsible for general affairs matters, each responsible for a general affairs department, while the leader of each of the three houses appointed the Ministers for own affairs, each responsible for an own affairs department. This resulted in the establishment of a larger number of government departments. Water, for example, was a general affairs matter, while agriculture was an own affairs matter. Water was, therefore, the responsibility of a general affairs Minister and Department, while agriculture was the responsibility of three different Ministers and Departments, each looking after the interest of a specific racial group.

South Africa was divided into four provinces, each with an administration with certain responsibilities. Although not a federal system, it contained certain elements of such a system. There was, for example, no division of power and competencies between the government and the provinces set out in a constitution. The system was rather a form of devolution of power. Provincial administrations formed an extension of the government exercising certain functions within a geographical area. The administrations got their powers, legislative and executive, from Acts made by Parliament. The whole of the Olifants river basin, except the areas of the national States and self-governing territories, was situated in the jurisdiction of the Transvaal Provincial Administration.

2.3.3 Legislative sovereignty of parliament

The parliament was created in 1910 with “full power to make laws for peace, order and good government of the Union.” The British Parliament in the United Kingdom retained the power to make laws for any part of the King’s dominions, thus also South Africa. The British Parliament could therefore make a law, even if it overruled a law made by the Union’s Parliament. Furthermore, the Union’s Parliament could not make a law contrary to a law that the British Parliament intended to extend to the Union. In 1931, the British Parliament recognized the full equality of the dominions and established the Commonwealth of Nations, an association of independent nations of which South Africa formed part. The Union’s Parliament was now

empowered to reject any law of the British Parliament if it decided so and enact any legislation concerning domestic matters.

In 1961, the Parliament became the institution with the highest legislative power. It was, therefore, legislatively sovereign with unlimited law-making powers. Acts made by Parliament could not be reviewed by the Courts and declared invalid, except if the procedure to promulgate the law was not followed. Acts could, therefore, be unfair, unreasonable, unjust, inequitable and discriminatory.

2.3.4 Creation of national States and self-governing territories

In pursuit of the goal of separate institutions for each racial and ethnic group, there was an attempt to divide South Africa gradually into various States, each entirely independent and autonomous with no political control by South Africa. Virtually no country other than South Africa recognized this system. Four territories accepted their autonomy and became independent national States. The other six territories had chosen not to accept autonomy or were not ready to accept it. These became self-governing territories still under political control of South Africa. The national States and self-governing territories stayed economically, financially and otherwise completely dependent on South Africa.

Specific legislation was enacted from 1936 to 1976 allowing the first national State (Transkei in the Cape Province) to become independent in 1976. As far as the other territories were concerned, the Self-Governing Territories Constitution Act of 1971 of the Parliament of the Republic of South Africa was designed to enable the Government of South Africa to gradually lead each area to independence. First, a legislative assembly was constituted, with restricted powers and subject to the approval of the State President of the Republic of South Africa, for an area seeking independence, followed by declaring the area a self-governing territory.

The legislative bodies of the self-governing territories had the power to make, amend or repeal laws with regard to certain matters. Appendix 1 contains a list of these matters relating to water. Yet other matters were governed by laws made by the Republic of South Africa. The executive government of a self-governing territory was vested in a Cabinet, which consisted of a Chief Minister and other Ministers. The Cabinet was constituted from the members of the legislative body for the territory. The Cabinet exercised the powers and performed the functions and duties imposed upon it by law. The Cabinet could establish departments in connection with specified matters with the approval of the State President of the Republic of South Africa.

Sometimes it was very difficult, in practice, to determine whether an amendment to a law made by the Republic of South Africa was also applicable to the self-governing territories or not. It was in certain cases also uncertain whether the Ministers of the self-governing territories or the Minister of the Republic of South Africa should issue certain permits. For example, the issuing of permits relating to the use of water for irrigation were, it seems, the responsibility of the Ministers of the self-governing territories, while it was unclear whose responsibility it was to issue permits relating to the use of water for industrial purposes. Various conflicting legal opinions were given on the matter, which confused the matter without resolving it.

Legislative assemblies were established for most of the identified areas during the early 1970s. When the national States and self-governing territories were incorporated into the remainder of South Africa in 1994 all these areas had already been declared self-governing territories.

Small portions of the national State of Bophuthatswana fell within the northwest portion of the Olifants river basin. Lebowa, KwaNdebele and Gazankulu were self-governing territories in the basin.

2.4 Water Policies and Legislation

Rights to use water in the Republic of South Africa, the national States and the self-governing territories were subject to the principles of the South African water law. These principles had their roots in the Roman law, Dutch law and English law.

2.4.1 The foundation of the water law

The Roman water law was a primitive system regulating the legal relationship within a small farming community along the Tiber river in the Roman Empire in Europe more than 2000 years ago. It made a distinction between public and private water. Public water was a source of water that had a potential for communal use, while private water had limited applications. The State was *dominus fluminis* over public water. This means that the right to use public water was vested in the State and a person could only use it if authorized by the State. The exact role of the State regarding authorization was not clear. On the other hand, private water (which included underground water) was regarded as private property. The owner of land on which private water was found had the full and exclusive use of that water.

Except for certain changes, these principles were retained in the Roman-Dutch law when Roman law was gradually precipitated into the law of the Netherlands between the fourteenth and sixteenth centuries.

With the settlement of the Hollandsche Oos-Indiese Kompanjie at the Cape of Good Hope in 1652, Jan van Riebeeck and those who succeeded him in the command of the settlement, applied the *dominus fluminis* principle to the streams of the Table Mountain Valley. Later, this principle was also applied to other perennial rivers as the Kompanjie's sphere of influence extended and the Cape Colony increased in size.

The Kompanjie's general policy was to grant leases of farming land for limited periods and to retain inherent ownership of the soil. It also granted small areas of land in freehold to certain individuals. In the outlying districts water rights were regulated by *landdroste* and *heemraden* (magistrates and councils). They were appointed to hold inquiries, apportion water and settle disputes between owners of properties abutting streams.

When South Africa came under British rule in the beginning of the nineteenth century, a new system of freehold land tenure was introduced. It gave ownership to the person occupying the land. The natural rights pertaining to land then belonged to the owner of the land. Due to this, the Cape Supreme Court replaced the *dominus fluminis* principle in respect of public water by the riparian rights principle. According to this principle, the owners of the properties adjoining a river (riparian land) have the exclusive right to use the water of the river.

It took a long time to lay down criteria to classify water as public or private as well as the rights to these waters. It was propounded that the use of public water was common to the riparian owners and a system of proportionate sharing of the water by riparian owners was applied. The concept of a public stream was also extended to include intermittent rivers typical of South Africa. (Under Roman law only perennial streams could be public streams.) Private water was the exclusive

property of the owner on whose land it was found and the owner was entitled to use, alienate and dispose of it, subject to the ancient customary law.

Water requirements for land not adjoining a river, for example for urban use on non-riparian land, required special legislation in each case. The State played no active role in establishing waterworks and the apportionment of water became the exclusive function of the judiciary.

The different principles were ultimately synthesized in the first codification of the South African water legislation. These were the Irrigation Act (Cape) of 1906 and the Irrigation Act (Transvaal) of 1908.

2.4.2 The Irrigation and Conservation of Water Act of 1912

After the Union of South Africa was formed in 1910, the Irrigation and Conservation of Water Act of 1912 was promulgated to codify all the water laws of the Union. This was a compromise between the Northern (Transvaal and the Orange Free State) and Southern (Cape and Natal) provinces of the Union's requirements. The Act was based on the Irrigation Act (Cape) of 1906 but its provisions were modified to embrace the Northern conditions.

The characteristics of a public stream were changed by substituting "general common use" with "common use for irrigation." Furthermore, the traditional application of the riparian rights principle for public water was found not to suit the flow patterns of most South African rivers (mainly in the northern part of South Africa). Typical flows do not readily lend themselves to pro rata apportionment, as these flows fluctuate considerably and dependable flows normally constitute only a small percentage of the runoff. A distinction was accordingly made between normal flow, which was broadly defined as the perennial part of the river's flow, and surplus water, which represented irregular high flows after heavy rains.

Riparian owners still had the rights to use public water. Riparian owners could use as much surplus water as could be used beneficially. Only normal flow was subject to apportionment. The Water Courts resolved any disputes over water. Water requirements for non-riparian land still required special legislation. Over 40 different special Acts were promulgated for this purpose. Private water was still reserved for those on whose properties the water was found.

The State's involvement was largely the construction of irrigation works and the provision of water for irrigation from these works. The provisions of the Act established the pattern for further development of South African water legislation. This entailed progressively greater State involvement in the development of limited water resources in the public interest. Limited control over the use of public water for irrigation by riparian owners was exercised by the State through the establishment and supervisory control over irrigation boards.

2.4.3 Control over the water resources in terms of the Water Act of 1956

Urban and industrial development in South Africa during the first half of the twentieth century placed additional demands on the relatively limited water resources. The increased demand could not be accommodated by the traditional riparian rights principle. In 1950, a Commission of Enquiry into the water law was appointed, which led to the promulgation of the Water Act of 1956. The name of the Irrigation Department was then changed to the Department of Water Affairs to reflect the broadened scope of its task.

Most of the principles of the Irrigation and Conservation of Water Act of 1912 were reenacted. However, the State obtained more power over the rights to use water, gave a rightful

place to industrial use and created structures enabling non-riparian landowners to obtain rights to water.

The State was involved in the construction of government waterworks for the supply of water for irrigation and other purposes, but only in regard to existing rights that have been exercised beneficially. The State was not involved in the construction and operation of waterworks for individual users but gave financial and technical assistance to irrigators and municipalities.

The riparian principles still applied in the Water Court to settle disputes over public water. If it was in the public interest or due to the construction of a government waterworks, the State could declare a government water control area and thereby regulate the rights to use public water subject to rights that had been exercised beneficially. This was done by determining the rights and placing limitations on the storage, abstraction and use of water with a system of abstraction and works permits based on quantitative measures and restrictions.

A person was entitled to buy the water rights from another property. If the water was used on non-riparian property or for industrial purposes, the permission of the Water Court was needed. The court could prescribe conditions to control water pollution.

Most water rights were not supported by documentation (because of the riparian right principles). Furthermore, it was also expensive and technically difficult to ask the Water Court to resolve a dispute. For example, it was technically difficult to prove whether water abstracted from sand next to a river was derived from the river or on its way to the river (or both). In the first case, the water was public water and in the second case, it was private water and the rights to these were determined differently.

Control over urban and industrial users was also exercised by the introduction of water boards. The functions of these boards included the provision of bulk water for urban and industrial use and regional sewage schemes in their areas of jurisdiction. The State retained control over irrigation boards.

Measures were also introduced to control water pollution activities. For example, a person using water for industrial purposes had to purify or treat the water and effluent produced so that it complied with a prescribed standard. This included the use of water for a sewerage system or water purification works. After the water had been purified or treated, the water had to be discharged into the stream from which the water was abstracted or at another place as the Minister of Water Affairs might have indicated. Exemption could be obtained from the Minister for socioeconomic or technical reasons, provided an impact assessment was done on the likely impact of the discharge on the water resources.

Diffused sources causing water quality problems could now also be controlled. The person in control of land where activities posed a pollution problem had to take prescribed steps to prevent water pollution. Only regulations for existing mining activities were promulgated. It was still difficult to identify activities that caused pollution and to develop the necessary steps to rectify the problem.

If water became polluted, the Minister of Water Affairs could issue directives instructing the person responsible to remedy the matter. If the problem was still ignored, the Minister could remedy the matter and recover the cost from the person responsible.

Appendix 2 contains a summary of the relevant provisions of the Water Act of 1956 relating to the determination and granting of rights to use water.

2.4.4 Government water control areas in the Olifants river basin

Various government water control areas (shown in figure 2.1) were declared in the Olifants river basin. The value of declaring these areas as a water resources management tool was severely restricted by the ability of the authorities to determine the right to use water and implement control measures on the ground. Available manpower and financial resources often fell far short of needs for effective control. In some cases, actual control in the field was not of great importance but situations did arise where stricter policing was necessary to resolve problems and to avoid potential conflicts.

Areas where water resources were furthest developed presented the most serious control problems. In the middle and lower parts of the Olifants river basin more effective control measures were necessary than in the basins of the Middelburg dam on the Klein Olifants river, Witbank dam on the Olifants river and the Rust De Winter dam on the Elands river.

In the catchments of the Loskop dam, Middelburg dam and Witbank dam, the need for government water control faded and serious consideration was given to introduce only a system of controlling the maximum allowable storage capacity and abstraction rates. Water rights could then be determined according to the riparian principles. The reason was that the administrative burden of retaining full quantitative control did not justify the benefits achieved under the prevailing circumstances.

2.4.5 Water Court orders given in the Olifants river basin

There were about 120 cases in which the Water Court was asked to hear arguments on issues relating to water in the Olifants river basin. Two cases are discussed below as examples.

The Water Court was asked from time to time to make an apportionment of available normal flow in a public stream between riparian properties. These orders were very detailed and technical, and were used to construct and operate flow diversion structures in irrigation areas. A good example is the Court Order dated 7 November 1918 following an application by a certain Byrne along the Waterval river. These types of orders were very important on a local level and seldom had a major impact on the availability and utilization of water resources on a regional and basin level.

Another Water Court order involved Tubatse Ferrochrome (Pty) Ltd. in the Steelpoort river basin. The company was entitled to use public water from the Steelpoort river for agricultural purposes. They applied in 1976 to the Water Court to use the water for industrial purposes, which the Court authorized. Tubatse also withdrew groundwater out of sand reservoirs next to the Steelpoort river. There were disputes between Tubatse and the riparian owners over the status of the water, i.e., was it derived from the Steelpoort river or not. If the water was from the Steelpoort river, it formed part of their rights allocated by the Water Court, with certain types of control measures applicable (for example, water may only be withdrawn if the flow in certain furrows exceeded predetermined flow rates). If not, the water was private water, which did not form part of the rights allocated by the Water Court, in which case other measures applied. This dispute was not really resolved, illustrating the technicality and complexity of applying the water law.

2.4.6 The Water Act of 1956 and the national States and self-governing territories

Laws applicable in the Republic of South Africa stayed in force for a specific territory when it became a national State or self-governing territory, until amended or repealed by a competent authority. The Water Act of 1956, therefore, applied in the national States and self-governing territories. The national States had the power to amend or repeal the Water Act of 1956, but only the Republic of Bophuthatswana replaced the Act with the Water Act (Bophuthatswana) of 1988. This Act introduced the *dominus fluminis* principle into the law for that territory.

In spite of the fact that the provisions of the Water Act of 1956 applied in the national States, except later in Bophuthatswana, and the self-governing territories, the impression was that all rights to the use of water (private and public) in these States were based on the *dominus fluminis* principle. This was because the majority of the land was State-owned and permission of the State was, therefore, needed to use the water found on that property. The State had rights to use the water as owner of the property in terms of the Water Act of 1956 and this right was transferred to the relevant users. Sometimes, the problem was to determine which official of the State had to grant the necessary permission.

Land purchased in the Republic of South Africa to be incorporated into a national State or self-governing territory and placed under the jurisdiction of the South African Development Trust Corporation retained the rights to use water.

The governments of these States and territories constructed various governmental waterworks for supplying water for irrigation and domestic purposes. Private persons, tribal authorities, NGOs and villages also constructed waterworks.

2.5 Land Tenure in the National States and Self-Governing Territories

Land tenure in the national States and self-governing territories was different from that in the Republic of South Africa. In the Republic, land was predominantly privately owned, while most of the land in the national States and self-governing territories was held under some form of communal tenure. Other forms included freehold land held by individuals and groups and State land.

Communal land tenure has its basis in African customary law. In South Africa, it was modified during the twentieth century. It combined elements of individual and collective property rights. An individual's entitlement to land flows from membership of a traditional, ethnic community (a village or tribe). Land for arable or residential purposes was usually obtained through the relevant chief. A chief is the tribal head of an area, which usually includes several villages. Usually, each village has a headman who represents the chief of that area. Once allocated, the land was reserved for exclusive use of the occupying household, which could not be sold or transferred. All land issues were and still are dealt with by the chief. Unallocated land was available to community members as common resources, mainly for grazing. In the early 1990s, the local magistrates were tasked with the authority to issue permission to occupy certificates,

which granted exclusive life-time usufructuary rights to individuals, but not allowing for selling, mortgaging, leasing or subdividing.

Legally, most of the communal land was owned by the State, but held in trust for special tribal communities and allocated by the authorities to people living under their jurisdiction on a usufructuary basis. The perception was that land belonged to the communities or the tribal authorities, notwithstanding that the formal titles in the form of deeds were held by the State. Land administered under the communal system could be divided into three broad categories.

The first was tribal land, which was occupied by tribes prior to 1936, in many cases without interruption. Type of ownership was appropriated, but was generally not accompanied by any change in occupation or land use. It often went unnoticed by the inhabitants. This land made up most of the land demarcated for the Blacks under the Natives Land Act of 1913. These lands were handed over to the South African Development Trust Corporation in 1936.

The second category was land, mainly farms belonging to the Whites, expropriated and bought after 1936 and allocated to the South African Development Trust Corporation. The expropriated land was held in trust by the State President of the Republic and allocated for use of specific communities or tribes living under their respective tribal authorities and village heads.

The third category was land bought between 1910 and 1936 by groups of Blacks in undivided shares. Some groups were successful in having title deeds issued in their own names, while others were obligated to register in the name of a tribe or a State official, to be held in trust for the purchasers. Most of the land was later used and administered by communities or tribal authorities in a way that is indistinguishable from other communal land.

Land was allocated usually to male household heads. Due to this, women faced multiple forms of discrimination within this tradition-bound society. They were able to gain access to land under a variety of conditions. As most of the tribal authorities did not encourage women to apply for land in their own name, most were obliged to acquire land through husbands or other male relatives, which left them with less-secure rights than their male counterparts. Both women and men could inherit land and there was no specific protection for widows in the event of the death of a male plot holder. In recent years, considerable numbers of women's groups had acquired very small areas of land for gardening projects from chiefs, but their legal rights on such land remain unclear.

2.6 Development Related to the National States and Self-Governing Territories

Agriculture was commonly perceived in the national States and self-governing territories as subsistence-oriented and extremely marginal. Mainly, food crops for direct consumption were produced, under conditions that were relatively underdeveloped in terms of methods, materials and integration into the markets. Although agriculture was not the principal source of livelihood for a majority of the households, it did provide supplementary income for a substantial proportion of the population and made it possible to keep livestock as a form of investment. Pensions were probably the most important source of income in these rural communities.

Some efforts were made in the 1960s to develop smallholder agriculture, including the expansion of the areas under irrigation. The government focused on preventing soil erosion, controlling cattle numbers and on a comprehensive system of physical planning. Some efforts were made to establish a small nucleus of commercial farmers. However, these were too scattered to form any foundation for community growth.

From the mid-1970s, agricultural policies focused on the development of a range of large-scale agricultural projects, mainly under the control of newly created semi-State organizations and private-sector investors. Most were highly inefficient and ineffective and declined by the late 1980s, mainly because of too high operational costs.

2.7 Organizations Involved in Water Management

Due to different political organizations for the different groups in South Africa, water resources management was used to be the responsibility of 11 departments of State and 14 departments for agriculture, each with its own staff structure, roles, responsibilities, needs, norms, authorities and expectations. Furthermore, various organizations were responsible for the provision of water services. This resulted in inefficient and ineffective water management.

A complete and comprehensive summary of the State of events is not possible. This part of the chapter only sets out the role of some of these organizations.

2.7.1 Republic of South Africa

Department of Water Affairs and Forestry

The Department of Water Affairs and Forestry (DWAF) was a general affairs department mainly responsible for water resources management in the Republic of South Africa. Its sphere of influence included, to a large degree, the national States and self-governing territories. The DWAF acted as custodian over water in South Africa.

The DWAF's functions and responsibilities included negotiations with other countries on joint water use, administration of the water legislation, estimation of water demand and availability, water resources planning, water resources development, the transfer of water between catchments, drought and flood management, safety of dams, control over the abstraction of public water, management of the quality of the water and the provision of technical and financial assistance to the private sector and to statutory bodies to develop water resources.

The DWAF encouraged local bodies to assume responsibility for activities that were of greater local interest than national interest and for services then being provided by government.

Department of Agriculture

The Department of Agriculture was a general affairs department mainly responsible for the protection of the agricultural resources, namely soil, water and plants. These included actions to prevent draining of moors and marshes, bush encroachment, veld degradation, soil erosion and water wastage.

Department of Agricultural Development, House of Assembly

The Department of Agricultural Development, House of Assembly, was an own affairs department (for the Whites) responsible for agricultural development and financing the construction of waterworks for the white population.

This department was also for a period responsible for the administration of the irrigation boards to which white farmers belonged.

Department of Development Aid

The Department of Development Aid was a general affairs department mainly responsible for ensuring effective development aid to the self-governing territories and the South African Development Trust land. This task encompassed controlling urbanization, obtaining and controlling of land for the rectification of territorial areas, promoting development work and rendering agricultural and administrative assistance in the self-governing territories and on South African Development Trust land.

Department of Environmental Affairs

The Department of Environment Affairs was a general affairs department responsible for promoting optimal utilization of the environment.

Department of Planning and Provincial Affairs

The Department of Planning and Provincial Affairs was a general affairs department responsible for coordinating all major development projects in the Republic.

Transvaal Provincial Administration

The Transvaal Provincial Administration was one of four provincial administrations, consisting of various directorates, responsible for nature conservation, community development, roads, works and health services. The main objective of the Directorate of Nature Conservation was the preservation of the environment by conservation and furtherance of the interests of natural resources. The Directorate Local Government Affairs provided certain municipal and community services to towns too small to warrant having their own town councils. Services provided include water supplies, health services, sanitation, electricity and roads.

Regional services councils

Various regional services councils were established as autonomous authorities to provide services on a regional basis. The councils did not operate in competition with existing municipalities but as a horizontal extension. The councils consisted of representatives of each local authority in a particular region.

A regional services council was responsible for those functions that could be performed effectively on a regional basis, such as bulk water supply, bulk electricity supply, sewage works, roads and community facilities. The idea was that these councils should not take over the functions of municipalities but, in certain cases, these services councils were entrusted with such functions.

Preference was given to the establishment of infrastructural services in areas of greatest need. Projects were carried out in association with the municipalities in whose areas the projects were being undertaken.

Municipalities

Town Councils, elected by the inhabitants of a town, were in charge of municipalities. A council was responsible for the provision and maintenance of infrastructure including water, electricity, roads, parks and health services for the town.

2.7.2 Lebowa self-governing territory

Department of Agriculture and Environmental Conservation

The Department of Agriculture and Environmental Conservation was responsible for agricultural development, water supply, dam construction, water purification, water reticulation to towns and settlements, and the planning and establishment of irrigation schemes in Lebowa.

Department of Economic Affairs and Technology, Lebowa

The Department of Economic Affairs and Technology, Lebowa was responsible for community development, mining and strategic planning, transport and labor matters.

Lebowa Development Corporation

The Lebowa Development Corporation was a statutory body with a Board of Directors appointed by the Lebowa Cabinet. The objectives of the Corporation were to promote economic development in Lebowa by establishing, planning, financing, coordinating and performing industrial, commercial, financial, transportation, tourism and other business undertakings and projects.

Lebowa Agricultural Company

The Lebowa Agricultural Company worked closely with the Department of Agriculture and Environmental Conservation of Lebowa and was financed by the Lebowa Development Corporation. This company acted as a development agency for the Department and one of its objectives was to develop, finance and manage agricultural schemes.

Town councils in Lebowa's self-governing territory

Each town had a Town Council. Towns were divided into wards. The Councils handled the allocation of business rights, building sites and licences, housing and land-use planning. They collaborated with the Department of Health in such matters as the construction of sports stadia and the development of parks. They acted in an advisory capacity to the government but had no legislative powers.

2.7.3 KwaNdebele self-governing territory

The departments involved in water management in the KwaNdebele self-governing territory were the Department of Agriculture and Environmental Affairs and the Department of Works and Water Affairs. They and the other organizations performed similar functions to the departments in the Lebowa self-governing territory.

2.7.4 Gazankulu self-governing territory

The departments involved in water management in the Gazankulu self-governing territory were the Department of Agriculture and Forestry and the Department of Public Works. They and other organizations performed similar functions to the State departments in the Lebowa self-governing territory.

2.7.5 South African Development Trust Corporation

The Native Trust and Land Act of 1936 created the South African Native Trust (later to become the South African Development Trust Corporation), administered by the Department of Development Aid. The Trust was responsible for the supply of basic infrastructure in the self-governing territories, for obtaining and consolidating land necessary for the national States and self-governing territories, and for establishing, financing and maintaining, among others, the respective Development Corporations.

2.7.6 Permanent Water Commissions

Permanent Water Commissions were established between the Republic of South Africa and each independent national State and self-governing territory. Each country had equal representation on a Commission. A Commission made recommendations to the different governments regarding the management of the joint water resources, which included the division, regulation, supply and use of water. If necessary, an agreement could be concluded between different governments regulating these matters. Although permitted, no agreements were concluded involving any self-governing territory.

CHAPTER 3

Constitutional Requirements

3.1 Political Changes

The political, social and economic development in South Africa during the last decade of the twentieth century brought about a nonracial and nonsexist democratic system based on fundamental principles. This chapter sets out the constitutional requirements relating to water management brought about by these developments.

During the late 1980s and early 1990s, the Government of the Republic of South Africa was forced by sanctions and diplomatic and political pressure to dismantle the legal basis of apartheid. This was a long and difficult process. For example, the ruling National Party was, at first, unwilling to transfer rule completely to the country's black majority and tried vigorously to institute minority veto powers for major decision areas. The African National Congress (ANC) staged strikes and other nonviolent protests to try to force the National Party to change their position on this issue.

Eventually, as a result of compromises by the various role players, an agreement was reached on 13 November 1993. This agreement pledged the institution of a nonracial, nonsexist, unified and democratic South Africa based on the principle of "one person, one vote." The various national States and self-governing territories were also incorporated into the Republic of South Africa to form one country again.

After the 1993 interim Constitution of South Africa was enacted based on this agreement, the country held its first multiracial election in April 1994. The Government of National Unity was formed, with the ANC the majority party. The interim Constitution required from the Government of National Unity to enact within 2 years a new Constitution for South Africa based on certain accepted principles as set out in the interim Constitution, which resulted in the Constitution of the Republic of South Africa of 1996.

These political changes prompted the establishment of a democratic and open society based on democratic values, social justice and fundamental human rights. With these, South Africa gained the necessary framework to improve the quality of life of all its citizens. In spite of these changes, certain elements of the previous institutional framework still apply and inequalities still exist. The government is in the process of transforming to a new framework. In certain cases, it is difficult to determine what is actually happening at the local, village and community level. In such cases, the framework is set out as envisaged by the policy statements.

3.2 The Bill of Rights

The Bill of Rights, as contained in the Constitution, is the cornerstone of the democracy in South Africa. It applies to all laws and may not be violated. It binds the legislature, the executive, the

judiciary and all other organs of the State. These institutions must respect, protect, promote and fulfill these rights.

The following rights are of importance when setting out the HIM:

- **Equality (Section 9):** Everyone is equal before the law and has the right to equal protection and benefit of the law.
- **Human dignity (Section 10):** Everyone has inherent dignity and the right to have their dignity respected and protected.
- **Environment (Section 24):** All persons have the right to an environment that is not harmful to their well-being. The environment must be protected, for the benefit of present and future generations, through reasonable legislative and other measures. These measures should prevent pollution and ecological degradation and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.
- **Water security (Section 27):** All persons have the right to have access, among others, to sufficient water. The State must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of this right.

The promulgation of the Water Services Act (WSA) and the National Water Act (NWA) gave effect to these rights from a water perspective. The instruments to be developed and implemented in terms of these Acts must be such that effect is also given to these rights.

3.3 How Government Is Structured and Functioning

3.3.1 A three-sphere government

In terms of the Constitution of the Republic of 1996, the government is constituted into national, provincial and local spheres of government. The Constitution states that these spheres are distinctive, interdependent and interrelated. Provincial and local governments are, therefore, new spheres of government in their own right and not functions of the national government anymore.

Each sphere contains the different organs of the State necessary for the government to fulfill its obligations. Organizations exercising public powers or performing public functions in terms of legislation, for example, CMAs and water boards, are also organs of the State, although they do not form part of any sphere of the government.

3.3.2 Functional areas of the different spheres of government

The functional areas for which each specific sphere of government is responsible are set out in the Constitution of the Republic of 1996 and are as follows.

- ***Exclusive national government functional areas***

By implication, the Constitution assigns the following functional areas relevant to water management exclusively to the national government:

water resources management; minerals; land affairs; national parks; energy; labor.

- ***Concurrent national and provincial government functional areas***

The Constitution assigns the following functional areas relevant to water management concurrently to the national and provincial governments:

agriculture; disaster management; education at all levels, excluding tertiary education; environment; housing; industrial promotion; nature conservation, excluding national parks and national botanical gardens; pollution control; regional planning and development; soil conservation; trade; tourism; and urban and rural development.

Regulating the following local government matters: air pollution; building regulations; municipal planning; storm water management systems in built-up areas; water and sanitation services limited to potable water supply systems and domestic waste-water and sewage disposal systems.

- ***Exclusive provincial government functional areas***

The Constitution assigns the following functional areas relevant to water management exclusively to the provincial government:

abattoirs; provincial planning; provincial recreation and amenities.

Regulating the following local government matters: cemeteries; cleansing; control of public nuisances; municipal parks and recreation; municipal roads; refuse removal, refuse dumps and solid waste disposal.

- ***Local government functional areas***

The Constitution assigns the following functional areas relevant to water management to the local government:

air pollution; building regulations; municipal planning; storm water management systems in built-up areas; water and sanitation services limited to potable water supply systems and domestic waste-water and sewage disposal systems; cemeteries; cleansing; control of public nuisances; municipal parks and recreation; municipal roads; refuse removal, refuse dumps and solid waste disposal.

The national government and the provincial governments have the legislative and executive authority to see to the effective performance by municipalities of these functions by regulating the exercising by municipalities of their executive authority.

Each sphere has legislative and executive authority as far as a specific functional area is concerned. In spite the above, development of national approaches is possible if deemed necessary for national uniformity, to protect the environment, to maintain essential national standards and to establish minimum standards required for the rendering of services, among others.

3.3.3 Cooperative government and intergovernmental relationships

The policies and activities of one sphere of government or an organ of State may impact on the responsibilities and functioning of another sphere or organ. Therefore, the Constitution of the Republic of 1996 obliges all three spheres and all organs within each sphere to cooperate and consult with each other, respect the responsibilities of the others and exercise powers and perform functions in such a way as not to encroach on the integrity of another sphere. Furthermore, the different spheres and organs may only exercise powers and perform functions conferred on them in terms of the Constitution (powers and functions may, in terms of the Constitution, be assigned, transferred or delegated from one organ to another). The national government is in a very powerful position as it collects the majority of taxes and distributes monies mainly according to its determined priorities.

A system of intergovernmental relations in South Africa is still emerging. To date, the development has focused mainly on the relationship between national and provincial governments and only as far as certain functional areas are concerned. The relationship with the other functional areas and local governments will develop over time.

The establishment of CMAs, for example, as well as the development of catchment management strategies by these agencies in terms of the NWA, will assist with achieving the principles of cooperative government relating to water resources management and the provision of water services to support life and personal hygiene. The implementation of the White Paper on local government, and the development of water services development plans by water services authorities in terms of the WSA, will assist in achieving the principles of cooperative government relating to the provision of water services to support life and personal hygiene.

The Constitution of the Republic of South Africa of 1996 requires the development of an Act to establish or provide for structures and institutions to promote intergovernmental relations. The Department of Constitutional Development is currently drafting a discussion document to open debate on this. The roles and responsibilities of each sphere within a system of intergovernmental relations will become clearer as this process unfolds.

CHAPTER 4

Water Resources Management

In terms of the Constitution of the Republic of South Africa of 1996, water resources management, as part of water management, is an exclusively national government function. Managing activities generating waste and the waste generated, and regulating land uses that might affect water resources could be either an exclusively national, concurrently national and provincial, exclusively provincial or a local government function, depending on which sector and activities are involved. The national government must, in cooperation with the other spheres of government, ensure that the limited water resources are used to improve the quality of life of all South Africans. Principle 7 of the “Fundamental Principles and Objectives of a New Water Law” describes the objectives of the government in managing the water resources as to “achieve optimum, long-term, environmentally sustainable social and economic benefit for society from their use.”

4.1 Process to Develop Water Resources Management Policy

Due to the democratic changes in South Africa and due to the inadequacy of the water legislation to meet the anticipated water management needs, in May 1994, the newly appointed Minister of Water Affairs and Forestry in the Government of National Unity initiated a process to review all the water-related legislation. This resulted in different products after 4 years of hard work and wide consultation. Now that the legislation has been put into operation, it will take some time to implement it for the whole of South Africa.

The first real outcome was the “Fundamental Principles and Objectives for a New Water Law in South Africa,” which the Cabinet approved in November 1996. These principles guided an intensive program of work involving political leaders, officials from the DWAF and other organs of the State, organized user groups and South Africans from all walks of life in a process of consultation, research and synthesis to develop the water resources management policy. This process was assisted by the support and involvement of officials and experts from other countries and from international organizations. This led to the publication of the “White Paper on a National Water Policy for South Africa,” dated April 1997, outlining the direction to be given to the development of water law and water-management systems, which will take South Africa into the twenty-first century.

The National Water Act (NWA) was drafted, based on this policy and came into operation on 1 October 1998. The DWAF is, in a progressive and phased manner, busy with implementing the Act. Many of the provisions and measures required in terms of the Act have yet to be developed.

4.2 White Paper on a National Water Policy for South Africa

Some of the key proposals in the “White Paper on a National Policy of South Africa” to guide water resources management are:

- The status of the nation’s water resources as an indivisible national asset will be confirmed and formalized.
- The national government will act as the custodian of the nation’s water resources and its powers in this regard will be exercised as a public trust.
- All water in the water cycle will be treated as part of the common resources and to the extent required to meet the broad objectives of water resources management, which will be subject to common approaches.
- Only that water required to meet basic human needs and to maintain environmental sustainability will be guaranteed as a right. This will be known as the Reserve.
- In shared river basins, the government will be empowered to give priority over other uses to ensure that the legitimate requirements of neighboring countries can be met.
- All other water uses will be recognized only if they are beneficial in the public interest. These will be subject to a system of allocation that promotes use, which is optimal to the achievement of equitable and sustainable economic and social development. The new system of allocation will take into consideration the investments made by the user in infrastructure for water use.
- The new system of allocation will be implemented in a phased manner, beginning in water management areas that are already under stress. This system of allocation will use water pricing, limited-term allocations and other administrative mechanisms to bring supply and demand into balance in a manner that is beneficial in the public interest.
- The riparian system of allocation, in which the right to use water is tied to the ownership of land along rivers, will effectively be abolished. Transitional arrangements will, in time, ensure an orderly, efficient and gradual shift in water-use allocations, as and when necessary.
- Water-use allocations will no longer be permanent, but will be given for a reasonable period (e.g., 40 years), and provision will be made to enable the transfer or trade of these rights between users, with Ministerial consent.
- To promote the efficient use of water, the policy will be to charge users for the full financial costs of providing access to water, including infrastructure development and catchment management activities. This will be done on an equitable basis and according to a realistic and reasonable program.
- All water use, wherever in the water cycle it occurs, will be subject to a catchment management charge that will cover actual costs incurred.

- All water use, wherever in the water cycle it occurs, will be subject to a resources conservation charge where there are competing beneficial uses or where such use significantly affects other users.
- The use of water resources to dispose of wastes will also be made subject to a catchment management charge, which will cover actual costs, and a resources conservation charge where there are competing beneficial uses for such use and/or such use significantly affects other users.
- To promote equitable access to water for disadvantaged groups for productive purposes such as agriculture, some or all of these charges may be waived for a determined period where this is necessary to enable them to start using the resources.
- To promote equitable access to water for basic human needs, provision will also be made for some or all of these charges to be waived.
- All major water-user sectors must develop a water-use, conservation and protection policy, and regulations will be introduced to ensure compliance with the policy in key areas.
- In the long term, since water does not recognize political boundaries, either national or international, its management will be carried out in regional or catchment water management areas. It must be recognized that conflicting interests will intensify the need for national management and supervision and that the policy of subsidization does not interfere with the need for a national and international perspective on water use.
- Provision will be made for the phased establishment of CMAs, subject to national authority, to undertake water resources management in these water-management areas.
- According to the White Paper, the usage of the country's water resources is not restricted to the taking or storing of water. It includes transportation and purification of waste, removing groundwater for carrying out activities, altering courses of rivers, the creation of opportunities for recreation and eco-tourism, activities reducing the availability of water in watercourses and the conservation of biodiversity through the maintenance of habitats.

Water resources should be used within their capacity to recover. If water resources are overutilized for short-term benefit, or if water resources are degraded due to the impacts of waste and land use, they can lose their ability to sustain utilization in the long term. There should be a proper balance between the uses of resources and the protection of the resources, which includes social and economic benefits as well as the determination of environmental objectives. Those involved, or their representatives, should weigh up the options on an informed basis. To achieve this, the systematic monitoring and evaluation of information are necessary.

Water allocation will be made within a framework taking into account specific circumstances of different areas of the country. Priority will be given, first, to the overriding priorities of the government to make sure that "all people have access to sufficient water," and second, "the protection of the ecosystems that underpin our water resources." The framework requires that all usage of water resources should eventually be licensed and registered. Existing water users will

have to register their water use within a set time period. These will be evaluated and, where justified and possible, converted into a licence.

The protection of water resources necessitated an approach based on resources-directed and source-directed measures. The distinction between the two is as follows:

- **Resources-directed measures** focus on the water resource itself. The purpose of these measures is to set clear objectives for the desired level of protection for each water resource.
- **Source-directed measures** focus on the sources of impacts from both point sources and diffused sources of pollution. These measures are aimed at what is done to the water resources, i.e., at managing and controlling the generation of waste at the source.

4.3 Legal Framework to Implement Water Resources Management Policy

The NWA falls within the ambit of the national government functional areas and creates the legislative framework for implementing the National Water Policy. The Act requires that the national government, acting through the Minister of Water Affairs and Forestry, must ensure that the water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all. To do this, the Minister must not only ensure equitable distribution of water to all South Africans but also protect the water resources for usage by future generations. It is only by addressing these issues that the vision “*Ensuring some for all, forever*” can be achieved.

This will be done within a framework of the national water resources strategy, catchment management strategies, setting of objectives and establishing suitable institutions. Furthermore, a phased process is followed to implement the necessary systems and measures required by the Act.

4.3.1 Creating the necessary organizational capacity

The NWA establishes various organizations or allows for the establishment of organizations. Each of these organizations has a certain role to play regarding water management and achieving the purpose of the NWA. The organizations must have appropriate community, racial and gender representation.

Catchment Management Agency (CMA)

The necessary organizational capacity to assist with the implementation of the National Water Policy will be created through the establishment of CMAs. The Minister may establish a CMA for a water management area as set out in the national water resources strategy and it may be done on the Minister’s own initiative or after receiving a proposal.

Water resources management functions could be delegated or assigned to these agencies, depending on their capacity, availability of resources and the relevant water resources aspects to be managed within their management areas.

The Olifants river basin forms a water management area and is identified as an area for which a CMA must be established as soon as possible. The DWAF is in the process of establishing such an agency for this area.

Governance

Governance should be understood from two perspectives. First, a narrower or traditional perspective, which is linked to the internal corporate structure of the organization, and second, a broader perspective associated with the external regulatory mechanisms and control of an organization. The broader perspective is known as public governance, while the narrower perspective is known as corporate governance.

The interest groups and stakeholders are all the organizations involved in water management and the water users. In their own interest, these organizations and users should cooperate to further the well-being of the organization. The concept of governance has, therefore, grown more complicated than previously. But governance should not be too onerous with the emphasis on control because it could stifle the organization. A proper balance needs to be achieved between freedom to manage, accountability and the interests of the different stakeholders.

Governance of certain organizations involved in water management, such as CMAs, must go beyond the narrow concept of governance. Therefore, instruments should be in place to ensure not only good corporate governance but also good public governance. This is important, because lack of these could lead to poor water management. Furthermore, individuals in control of these organizations may proceed with their own agendas.

As far as corporate governance is concerned, a CMA is a legal person with its own identity, managed and controlled by a governing board. The CMA can, for example, conclude contracts, sue or be sued, acquire, hold or alienate property and even manufacture and sell goods.

As far as good public governance is concerned, the following instruments could be used to facilitate the manner in which a CMA should be regulated and controlled to achieve its goals and objectives in the public interest:

- The Minister will appoint the governing board of the CMA after an open and objective process has been followed.
- An official of the DWAF will be a member of the governing board to ensure that government policy is taken into account by the governing board and to facilitate communication with the State.
- The duties of board members as well as the disclosure of interests are set out in the NWA, which requires, among others, that board members act honestly and exercise a reasonable degree of care and diligence in performing functions.
- The CMA must, with the cooperation and agreement from the various stakeholders, prepare a catchment management strategy at least every 5 years. Thereafter, the Minister and the CMA concerned must give effect to the strategy.
- The CMA must prepare an annual business plan.
- The Minister may intervene in the activities of the CMA, if the agency is not fulfilling its obligations.

Powers, functions and duties of a CMA

A CMA has original, assigned and delegated powers, functions and duties. These powers, functions and duties must be exercised within the scope of the common law, the national water resources strategy, the catchment management strategy and the resources-directed measures required in the NWA.

Original powers, functions and duties: Original powers, functions and duties are those that a CMA has by virtue of its existence. A CMA is responsible as well as accountable for exercising original powers, functions and duties. If an established CMA is not functional yet, then these are vested in the Minister until sufficient capacity has been created. The original functions of a CMA (which are called initial functions in the NWA) are to:

- investigate and advise interested parties on the protection, use, development, conservation, management and control of the water resources in its water management area
- develop a catchment management strategy
- coordinate the related activities of water users and water management institutions within its water management area
- promote the coordination of the implementation of water services development plans required in terms of the WSA for municipalities
- promote community participation in the protection, use, development, conservation, management and control of the water resources in its water management area
- give a directive to a person to take the necessary steps on its property to prevent the pollution of water resources, and if the person fails to take the steps, to rehabilitate the water resources
- give a directive to a person to clean up and remedy the effects of an accident in which a substance pollutes or has the potential to pollute water resources, and if the person fails to take the steps, to clean up and remedy the effects of the accident
- make available information on water resources management

Assigned powers, functions and duties: Assigned powers, functions and duties must first be assigned by the Minister to a CMA before it may exercise them. Before a power, function or duty is assigned to a CMA, they are vested in the Minister. A CMA is responsible as well as accountable for exercising assigned powers, functions and duties. The Minister may not interfere with the way these powers, functions and duties are exercised. The Minister may, after consultation with a CMA by notice in the Government Gazette, assign to a CMA:

- powers and duties related to the usage of water, which include the issuing, reviewing and amending of licences and verification of existing lawful water use
- powers related to the
 - management, monitoring and protection of water resources
 - development and operation of a water work promoting a catchment management strategy
 - doing anything necessary to implement a catchment management strategy
 - making rules to regulate water uses
 - requiring water users to establish monitoring devices to monitor water usages
 - requiring alterations to water works
 - controlling water uses in drought periods

Delegated powers, functions and duties: The Minister may delegate a vested power to a CMA. The Minister may not delegate a power to make regulations or to appoint members of the governing board of a CMA.

Organs of a CMA

A CMA operates through what is known as its organs. These organs together with the other organizations involved must be structured to allow the CMA to operate effectively and fulfill its responsibility.

Governing board: The Minister determines the size of the governing board. There are two ways in which people are appointed to the board, namely those nominated by organizations representing different sectors and those nominated to achieve sufficient balances as far as gender, demography, communities without access to water and expertise are concerned. A member is appointed for a specified term of office. The governing board is responsible for the management of the affairs of a CMA and may exercise the powers of the agency. The board must meet at least twice a year. It is the role of the board:

- to decide the strategies and policies to be followed by the agency
- to ensure that the agency exercises its powers or performs its duties in a proper, efficient, economical and sustainable manner

Chairperson and deputy chairperson: The Minister convenes the first meeting of the governing board. The Minister must, with due regard to any recommendation made by the governing board at its first meeting, appoint one of the members as the chairperson and another as the deputy chairperson.

Temporary or standing committees appointed by the governing board: The governing board may appoint temporary or standing committees from among its members. The board may appoint persons other than board members to a committee. The board determines the terms of reference of any committee, which may include:

- full decision-making powers on particular matters, or
- a requirement to refer decisions back to the board for ratification.

Committees established by the CMA: A CMA may establish committees, including an executive committee and consultative bodies, to perform any of its functions within a particular area, or generally, to advise it, and must determine their function.

The Chief Executive Officer (CEO) of the CMA: The governing board may appoint a suitably qualified person as CEO of the CMA. The CEO holds office on the terms and conditions determined by the board. The CEO may be a member of the governing board, but may not be its chairperson or deputy chairperson.

The staff of the CMA: The CEO appoints the staff of the CMA.

Consultative fora: The Minister may make regulations requiring the establishment of consultative fora and determining their composition and functions.

Delegation of powers by a CMA

A CMA may delegate any power to:

- a member of its governing board,
- an employee of any water management institution (including the agency), by name, or to the holder of an office in that institution, or
- any committee established by the CMA, which consists only of members of the governing board or employees of the CMA, and
- any other person or body, with the written consent of the Minister.

A CMA may only delegate a power to authorize the use of water if this power is delegated to a committee consisting of three or more members of its governing board.

The power of the Minister of Water Affairs and Forestry

The Minister may give a directive to a CMA in relation to the exercising of any of its powers or the performance of any of the agency's duties, including any power or duty assigned or delegated to that agency.

Water user associations (WUAs)

The Minister may establish a WUA on his own initiative or after receiving a proposal.

A WUA's primary purpose is not water resources management, although water resources management functions may be delegated to a WUA. A WUA operates at a restricted localized level as a cooperative association of individual water users, which may be from more than one sector. The aim of the association should be to undertake water-related activities for a mutual benefit, such as water distribution.

Previously, only irrigators could form a statutory body under the water legislation (known as irrigation boards) to undertake water-related activities for mutual benefit. All existing irrigation boards must, in time, be transformed to WUAs.

Governance

A WUA is a legal person with its own identity. The powers, functions and duties of a WUA are as set out in its constitution, which must be approved by the Minister.

The constitution of a WUA

The constitution of a WUA sets out the following:

- details of the principal and ancillary functions of the association
- the procedures and requirements for admitting new members to the association
- the voting powers of members
- procedures for terminating membership
- procedures for electing the management committee of the association
- procedural requirements for appointment of employees of the association
- procedural requirements for obtaining loans
- the financial obligations of members towards the association

4.3.2 Development of strategies to implement the National Water Policy

The following strategies should be developed, in a progressive and phased manner, to help with the implementation of the National Water Policy:

- The Minister must, after consultation with society at large, establish a national water resources strategy. This strategy provides for a framework for the protection, use, development, conservation, management and control of the water resources of the country as a whole. It also provides the framework within which water will be managed at the regional and basin level.
- The CMAs must establish catchment management strategies for the water resources within their management areas. These strategies must be in harmony with the national water resources strategy and should, among others, set out the objectives and plans of the CMAs for the protection, use, development, conservation, management and control of water

resources. In the process of developing the strategy, the CMAs must seek cooperation and agreement on water-related matters from the various stakeholders.

The Minister is currently establishing the national water resources strategy. The DWAF is establishing the different CMAs. Once a CMA has been established, the necessary catchment management strategy will be established. Until a CMA is established for a specific basin, the DWAF may establish the catchment management strategy for that basin.

These strategies are binding on all organs of the State when exercising powers or performing duties under the NWA.

4.3.3 Resources-directed measures

Resources-directed measures required by the NWA to set clear objectives for the desired level of protection of water resources will be implemented by following the next steps:

Prescribing the national water resources classification system

The Minister of Water Affairs and Forestry must prescribe, by regulation, a system to classify water resources. The system could:

- provide guidelines and procedures to determine the different classes of water resources
- in respect of each class of water resources, establish procedures for determining the reserve, which consists of two parts, namely:
 - the basic human needs reserve, which is the quantity and quality of water necessary for drinking, food preparation and personal hygiene
 - the ecological reserve, which is the quantity and quality of water necessary for the water resources to remain ecologically healthy
- establish procedures to satisfy the water-quality requirements of the different water users

The Minister is developing the system, which will probably be published in 2001.

Determination of the class and resources quality objectives of a water resource

The Minister must, in accordance with the national water resources classification system, determine the class and resources quality objectives of each significant water resource, which may be a preliminary determination. The purpose is to establish clear objectives relating to the quality of the different water resources.

The DWAF is formulating the class and resources quality objectives for several water resources, including those of the Olifants river basin, based on the envisaged system.

When a power is exercised under the NWA, effect must be given to the different classes and resource quality objectives.

Determination of the reserve

The Minister must determine the reserve of each significant water resource after the class has been determined, which may be a preliminary determination.

The DWAF is determining the reserve of several water resources based on the envisaged national resources classification system. The reserve for the water resources of the Olifants river basin will also be determined.

When a power is exercised under the NWA, effect must be given to the reserve.

4.3.4 Source-directed measures

Source-directed measures include a wide range of measures, such as:

- standards to regulate the quality of waste discharged into water resources
- requirements for on-site management practices for the reduction of waste at the source, recycling, detoxification and treatment of waste, etc.
- requirements for on-site management practices to control diffuse pollution
- requirements to minimize the impact of water uses on water resources
- regulating or prohibiting activities to protect water resources
- regulating the design, construction, installation, operation and maintenance of works.

The DWAF is developing many of the source-directed measures.

4.3.5 Control of activities that might affect water resources

In terms of the NWA, water use has a very wide definition and includes the following activities:

- taking water from water resources
- storing water
- impeding or diverting the flow of water in watercourses
- altering the beds, banks, courses and characteristics of watercourses
- engaging in the following controlled activities:

- irrigation of land with water containing waste generated through industrial activities
- activities aimed at the modification of atmospheric precipitation
- power-generation activities, which alter the flow regime of water resources
- intentional recharging of aquifers with water containing waste
- activities likely to impact detrimentally on water resources as declared by the Minister
- engaging in the following in-stream flow-reduction activities:
 - the use of land for forests, which have been or are being established for commercial purposes
 - activities (including the cultivation of crops or vegetation), which the Minister has declared, if those activities are likely to reduce the availability of water in watercourses
- discharging water containing waste (effluent) into water resources
- disposing of waste in manners, which may detrimentally impact on water resources
- disposing of water, which contains waste from, or which has been heated in, industrial or power-generation processes
- removing, discharging or disposing of water found underground, if necessary, for the efficient continuation of activities or for the safety of people
- using water for recreational purposes

A water use must be authorized before it may be exercised. Authorization may be either by way of licences or general authorizations to be issued by the Minister or a CMA, if this function is assigned to the CMA. Certain minimum uses and existing lawful water uses are authorized in terms of the NWA. In issuing a specific general authorization or licence, various factors must be taken into account, for example: existing lawful water uses; the need to redress the results of past racial and gender discrimination; efficient and beneficial use of the water in the public interest; the appropriate catchment management strategy; the class and the resources quality objectives of the water resources; the quality of water in the water resources, which may be required for the reserve; and for meeting international obligations.

As far as the minimum uses are concerned, a person may without authorization:

- take water for reasonable domestic use in that person's household, directly from any water resources to which that person has lawful access
- take water for use on land owned or occupied by that person from any water resource situated on or forms a boundary of that land, if the use is not excessive in relation to the capacity of the water resource and the needs of other users, for:

- reasonable domestic use
- small-scale gardening, not for commercial purposes
- watering of animals (excluding feedlots), which graze on that land within the grazing capacity of that land
- store and use runoff water from a roof
- in emergency situations, take water from any water resource for human consumption
- discharge waste into a conduit controlled by another person authorized to undertake the purification, treatment and disposal of waste, subject to the approval of that person

If a local authority wants to take water for the domestic use of a community, then this is not part of the minimum use and must, therefore, be authorized by a licence or a general authorization.

Existing lawful water uses are all the water uses who have taken place lawfully from 1 October 1996 to 30 September 1998. If a person has taken steps towards effecting a water use before 30 September 1998 or a water use was discontinued for good reason before 1 October 1996, then application may be made to declare that as an existing lawful water use. In many cases, in the national States and self-governing territories irrigation stopped when the land was transferred to the States and territories, and steps are now taken to start the irrigation again. Application should be made to declare these as existing lawful water uses.

If a person does not adhere to the conditions or exercises a water use without authorization, then steps could be taken to enforce compliance, which may include:

- influencing the person to carry out the activity while complying with the conditions
- public pressure on the person carrying out the activity to comply with the conditions
- publicity
- instituting criminal prosecution
- economic and other incentives to encourage compliance
- placing the water use under better control by requiring that all water uses from a specific water resource must be licensed
- directives for complying with the standards and practices

As a last resort, the authorization may be suspended or cancelled. This will make carrying out the activity illegal. If the person carries on with the activity, legal action should be taken to stop it and to rectify the problems caused by the activity.

If damage to the water resources occurs or there is a threat to the water resources, then a CMA may issue a directive to the person causing the damage or threat to remedy the effects of the damage or to prevent the threat at that person's own expense. If that person fails to comply

with the directive, then the CMA may take the necessary measures to remedy the situation and the cost thereof may be recovered from that person.

4.3.6 Monitoring and assessment

The Minister must establish the following:

- National monitoring systems on water resources to facilitate the continued and coordinated monitoring of various aspects of water resources by collecting relevant information and data through established procedures and mechanisms from various sources, including organs of the State and water users.
- National information systems, each covering a different aspect of water resources, such as a national register of water use authorizations, or an information system on the quantity and quality of all water resources.

Chapter 5

Provision of Water Services

5.1 Background

In terms of the Constitution of the Republic of South Africa of 1996, the provision of water services, as part of water management, could be an exclusively national, concurrently national and provincial, exclusively provincial or a local government function, depending on what sector and activities are involved. For example, the provision of water services for the irrigation sector should be a concurrently national and provincial government function, while to support life and personal hygiene should be a local government function.

The government is developing policies for some of the sectors. Some have been crystallized more than others, depending on social and other needs. Probably the best one developed so far is the provision of water services to support life and personal hygiene. Provision of water services for irrigation has also received a lot of attention and clear policy guidelines have already emerged.

In this chapter, the provision of services to support life and personal hygiene is set out comprehensively, because it addresses one of the most critical social needs for many people who have limited, insufficient or no access to enough water of good quality. It also contains policy statements relevant to the provision of water services for agricultural purposes and to improve the nutritional status of people.

5.2 Provision of Water Services to Support Life and Personal Hygiene

In terms of the Constitution of the Republic of South Africa of 1996, the provision of water services to people for supporting life and personal hygiene is a functional area of local government. However, the national government has the authority to make legislation for the effective performance by the organizations in the local government sphere relating to this.

The division of South Africa into 11 different administrations (the Republic, with its three-house parliament, the 4 national States and the 6 self-governing territories), has resulted in various organizations being involved in the provision of water services to support life and personal hygiene, which had to be amalgamated in 1994. With this amalgamation, it had to be taken into consideration that water and sanitation services were undertaken in the national States and self-governing territories mainly by government departments, while in the Republic it was mainly the municipalities that rendered these services. Furthermore, there was an inequity in water services between the different groups, where only about 45 percent of the Blacks had piped water against nearly 100 percent of the other groups .

It was not so much the proliferation of the different organizations that contributed to the inequity and inadequate water-services provision but rather:

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

To promote water services delivery in the interim and during the process of amalgamation and transformation, the DWAF established a new Chief Directorate of community water supply and sanitation. This Chief Directorate is responsible, among other things, for ensuring the effective ongoing operation of the water supply systems and the planning of the expansion of these services in collaboration with the other spheres of the government. These services will eventually be transferred to the appropriate organizations.

5.2.1 “White Paper on Water Supply and Sanitation”

Although the “White Paper on Water Supply and Sanitation,” dated November 1994, deals with sanitation this study concentrates on water supply to support life and personal hygiene. Good sanitation also deals with the protection of the quality of water resources but that is not addressed in this study. Therefore, a complete HIM should also include the provision of sanitation services. The DWAF is developing a strategy to manage water quality. One of the outcomes of that strategy, especially in densely populated settlements, is the need for well-installed, -operated and -maintained sanitation services to ensure that the quality of water resources is protected.

To achieve the constitutional goal, which is that all South Africans have the right to a healthy environment, would not be an easy task. It is the intention of the government to create the enabling environment necessary to ensure that all South Africans have access to acceptable levels of water supply.

Policy principles

Based on local and international experience, and on the premises of the Reconstruction and Development Program, the following principles were adopted as the basis for the water supply policy, which assume a context of universal human rights and the equality of all persons, regardless of race, gender, creed or culture:

- Development should be demand-driven and community-based. Decision making and control must be devolved as far as possible to accountable local structures. There is a reciprocal obligation on communities to accept responsibility for their own development and governance, with the assistance of the State.
- Basic services are a human right. This will be interpreted 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.

- “Some for all” rather than “All for some.” To give expression to the constitutional requirements, priority in planning and allocation of public funds will be given to those who are at present inadequately served.
- Equitable regional allocation of development resources. The limited national resources available to support the provision of basic services should be equitably distributed among regions, taking into account population and level of development.
- Water has an economic value. The way in which water services are provided must reflect the growing scarcity and value of good quality water in South Africa without undermining long-term sustainability and economic growth.
- The user pays. This is a central principle to ensure sustainable and equitable development, as well as efficient and effective management.
- Integrated development. Water development is not possible in isolation from development in other sectors. Coordination is necessary between all spheres of government and other involved parties. Maximum direct and indirect benefits must be derived from development in, for instance, education and training, job creation and the promotion of local democracy.
- Environmental integrity. It is necessary to ensure that the environment is considered and protected in all development activities.

Organizational goals

As far as the organizational framework is concerned, the following goals are set:

- In the short term, the immediate goal is to maintain service delivery, to rationalize the DWAF and to “gear up” to achieve medium-term goals.
- In the medium term, the objective of the government is to support institutional development at local level as well as to provide financial and technical assistance for the physical development of water supply and sanitation services. This will be achieved through the DWAF at regional level and through organizations like water boards, with the full involvement of the private and NGO sectors.
- In the long term, the goal is that the provision of services to consumers should be the function of a competent, democratic local government supported by provincial governments. Where necessary and appropriate, organizations (such as water boards) will provide bulk or regional water supplies to local authorities under the supervision of the DWAF. The DWAF will be responsible for water resources management, for monitoring and regulating functions and specifically for ensuring that an enabling environment for community-based water supply development is maintained. A strong private and NGO-sector should serve the public agencies.

The short-term goal was achieved and the DWAF is in the process of achieving the medium-term goal, although it still has a long and difficult way to go.

The role of the different organizations

The role of the national government: The national government is responsible for establishing national policy guidelines, a national water and sanitation development strategy, the formulation of criteria for State subsidies, the setting of minimum services standards as well as monitoring and regulating service provision.

The role of the provincial government: The provincial government is responsible for assuring services provision through the promotion of effective local government.

The role of the local government: The local government is responsible for making access to water (and other services) possible for all persons residing in its area of jurisdiction in a sustainable manner.

The dilemma is the unlikelihood that an effective local government will be established in all areas for some time. The moral and political demand for water, however, requires immediate action from the other spheres of government.

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

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

The role of NGOs: The communities in which NGOs work will determine the role of the latter. The principle of making the community the client will apply to NGOs as well as to the private “for profit” sector.

Finance and tariff policy

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

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

The basic policy of the government is that services should be self-financing at local and regional levels. The only exception to this is that, where poor communities are not able to afford

basic services, the government may subsidize the cost of construction of basic minimum services but not the operating, maintenance or replacement costs.

Transfer of government works to local government

With the incorporation of the national States and self-governing territories into the Republic of South Africa in 1994, effective local government structures were not in place to take over the responsibility for the waterworks in these States and territories. The DWAF then became responsible for these works. To enable the local government to fulfill its constitutional obligation of water-services delivery, these works will be transferred to the relevant organ of the State in the local government sphere once the works are fully operational and the necessary capacity at local level exists to ensure sustainability.

5.2.2 Legal framework for provision of water services to support life and personal hygiene

During the process of developing the White Paper on a National Water Policy for South Africa, the WSA was drafted and promulgated to regulate basic water supply and sanitation services to support life and personal hygiene. This Act was built on the foundations laid by the White Paper on Water Supply and Sanitation in close consultation with organized local government.

The WSA deals exclusively with the provision of water supply and sanitation services to support life and personal hygiene and creates a comprehensive legislative framework for this. The Act recognizes that these services must be undertaken in a manner consistent with the broader goals of water resources management. The Act is infused with the spirit of cooperative governance with the emphasis on building capacity at all government levels. It includes monitoring and intervention provisions and the role of the DWAF in the event of nonperformance by provincial and local governments.

Access to basic water services

In terms of the WSA, everyone has a right of access to basic water supply. Basic water supply is the prescribed (by regulation) minimum standard of abstraction, conveyance, treatment and distribution of potable water for the reliable supply of a sufficient quantity and quality of water to households, including informal households, to support life and personal hygiene. Regulations have not been published yet, but drafts are made available unofficially for comments. The standard is, therefore, still under debate, but according to the draft, basic water supply will be as follows:

- For low-density areas, a minimum quantity of 7 (seven) liters per person per day of potable water, available on a regular, daily basis
- For high-density areas:
 - a minimum quantity of potable water of 25 (twenty-five) liters per person per day
 - available within 200 (two hundred) meters walking distance
 - at a minimum flow rate of not less than 10 (ten) liters per minute

- available on a regular, daily basis
- supplied from a source of raw water, which is available 98 percent of the time, not failing more than 1 in 50 years
- with effectiveness of not more than 1 week interruption in supply per year.

The WSA places a duty on the organizations responsible for distributing water to support life and personal hygiene to take reasonable measures to realize this. Municipalities (as a collective name for organs of the State in the local government sphere) must, in their water-services development plans, provide for measures to realize these rights.

Duty to provide access to water services

Water-services authorities have a duty to all consumers or potential consumers in their area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to water services. This duty is subject to, among others:

- the availability of resources
- the need for an equitable allocation of resources to all
- the need to regulate access to water services in an equitable way
- the duty of consumers to pay reasonable charges
- the nature, topography, zoning and situation of the land in question

Duty to prepare water-services development plans

Water-services authorities must prepare water-services development plans for their areas of jurisdiction. These plans must contain details of:

- the physical attributes of the area to which they apply
- the size and distribution of the population within that area
- a time frame for the plan, including the implementation program for the following 5 years
- existing water services
- existing quantity and quality of industrial effluent disposed of within the area
- the number and location of persons within the area who are not being provided with a basic water supply and basic sanitation
- the future provision of water services and water for industrial use and the future disposal of industrial effluent

- the number and location of persons to whom water services cannot be provided within the next 5 years

No substantial deviation from a development plan is valid unless it is embodied in a new development plan.

Most municipalities have developed water-services development plans.

Performing the functions of a water-service provider

A municipality may perform the functions of a water-service provider itself. The municipality may also enter into a written contract with a water-service provider to provide the water services or form a joint venture with another water-services institution to provide water services.

A municipality may only enter into a contract with a private sector water-services provider after it has considered all known public-sector water-service providers that are willing and able to perform the relevant functions. No person may operate as a water-services provider without the approval of the municipality having jurisdiction in the area.

5.3 Provision of Water Services for Agricultural Purposes

Agriculture is a concurrently functional area between the national and the provincial governments. Processes to develop policies, setting out the responsibilities of the different organs of State involved in agriculture, are under way.

The framework for the provision of water services for agricultural purposes is under review. Some policy statements have emerged but many still need attention. Some relevant statements are set out here.

Communal irrigation schemes that were developed by the governments of the national States and self-governing territories are now the responsibility of the provincial Departments of Agriculture. In the Northern Province there are more than 170 such schemes but some of them are not operational. The policy is that the government (especially in the Northern Province) will withdraw from these and hand over the schemes to the farmers involved. This will be done in the following phases:

- Since 1999, the farmers involved must take responsibility for payment of all electricity and diesel. The provincial government is not doing it anymore.
- The provincial government will hand over the operation and maintenance of these schemes to the farmers. The Northern Province has three pilot projects, which are entering their second phase in 2000 while five other schemes are entering phase I of capacity building and infrastructure upgrading to facilitate handover.
- Later, the schemes will be transferred to the farmers in toto. This will probably be achieved by establishing WUAs.

5.4 Provision of Water Services to Improve Nutritional Status

The Northern Province's Department of Health is involved in establishing food gardens for communities. The purposes are to improve the nutritional status of the people and to indirectly generate employment for the poorest of the poor. The framework for the provision of water services to improve the nutritional status of people is still emerging.

CHAPTER 6

Organizations in Water Management

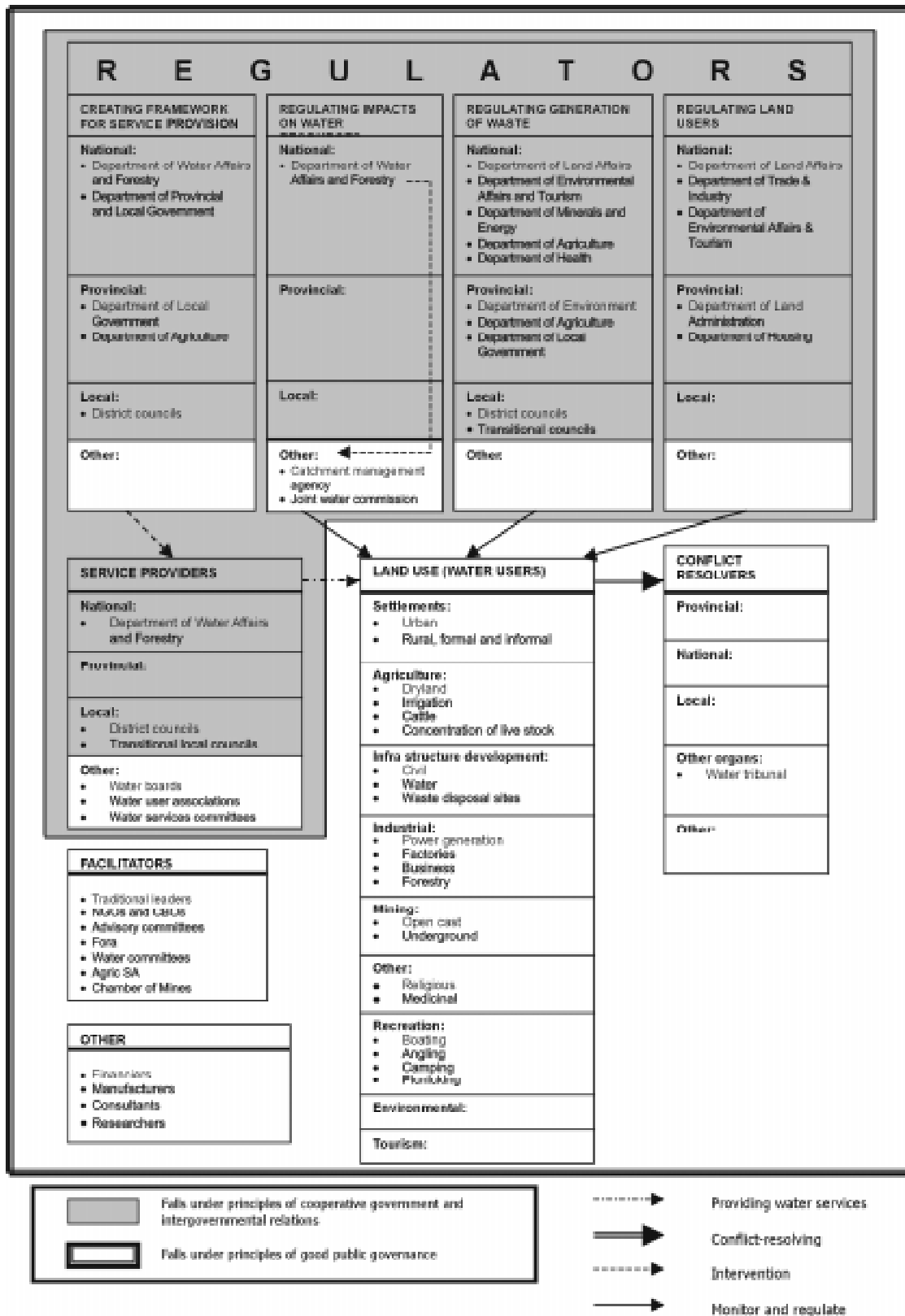
6.1 Types of Organizations and Relationships among Them

The organizations involved in water management can, for the purposes of interactions and relationships between them, be grouped into regulators, water-service providers, facilitators, water users, conflict resolvers and other interested groups. Each group can be further broken down into subgroups. Figure 6.1 sets out the different organizations and water users involved in water management and the relationships among them.

The relationships between an organization and water users can be regulating, intervening, service providing, conflict resolving, consulting and information providing, based on the principle of cooperative government or on the concept of good public governance. These relationships mean the following:

- A regulating relationship consists of the monitoring and regulating of water users' activities by a regulator by relying primarily on the application of instruments such as standards, practices, licences and controls.
- An intervening relationship develops when an organization, usually a water-services provider or a regulator, cannot or does not fulfill its water management obligations effectively, and a regulator intervenes by taking appropriate steps to ensure fulfillment of those obligations.
- A services-providing relationship consists of the provision of water services usually to water users or to water-service providers by a water-services provider.
- A conflict-resolving relationship consists of the resolving of conflicts between two or more organizations by another organization.
- A consulting relationship exists when an organization consults with one or more other organizations before the first-mentioned organization exercises a power or performs a function.
- An information-providing relationship occurs when information is made available by one organization or a group of water users to another organization or another group of water users.
- The principle of cooperative government is as set out in section 3.3.3.
- The concept of good public governance requires that a proper balance be achieved between freedom to manage, accountability and the interests of the different stakeholders (see section 4.3.1).

Figure 6.1. Interactions of organizations involved in water management.



Grouping organizations by function is not an easy task. Some organizations fall in more than one group or subgroup. In particular, the DWAF fulfills several functions and, because of its importance, is discussed separately below.

6.2 Water Users

A water user could be an individual or an organization whose activities impact or might impact on water resources. The activities can take place on the following land uses:

- Settlement, which can be urban or rural (with a rural settlement to be formal or informal)
- Agriculture, which can be dryland, irrigation or concentration of livestock
- Forestation
- Infrastructure development, which can be civil works, waterworks and waste disposal sites
- Industrial, which can be formal or informal, consisting of power generation, factories, manufacturers or businesses
- Mining
- Recreation
- Others, like medicinal or religious

Activities include:

- Taking of water from water resources
- Storing of water
- Impeding or diverting the flow of water in watercourses
- Altering the beds, banks, courses and characteristics of watercourses
- Engaging in activities that are likely to reduce the availability of the water to watercourses
- Engaging in activities that are likely to impact detrimentally on water resources
- Discharging and depositing of waste into or allowing waste to enter water resources
- Disposing of waste in manners that may detrimentally impact on water resources
- Removing, discharging or disposing of water found underground, if necessary, for efficient continuation of activities or for the safety of people
- Using of water for recreational purposes

6.3 The Department of Water Affairs and Forestry (DWAF)

The DWAF has a special place because of its multiple functions. The DWAF is an organ of the State in the national sphere of government. The DWAF is the custodian of the country's water resources, which is an exclusively national government function.

The DWAF has three major functions:

- monitoring and regulating the impacts of water users on water resources
- creating a framework for the provision of water services
- providing water services

Further, some DWAF activities also place the DWAF in the group of regulators regulating activities generating waste and the waste generated that might affect water resources. Even a specific office of the DWAF can be involved with the activities of more than one group. For example, a water resources management regional office of the DWAF is a regulator regulating the impact on water resources and a water-services provider supplying water to individual irrigators.

The DWAF has a national office and nine regional offices. The regional office involved in water resources management within the Olifants river basin is situated in Nelspruit. There are also various satellite offices responsible for specific functions, like quality monitoring. For the purpose of providing water services to support life and personal hygiene, each regional office has various district offices for specific areas, each with various satellite offices. The regional office involved in the provision of water services for the Northern Province is situated in Pietersburg, with five district offices. The Southern Districts office, where the case studies were done, has four satellite offices. The regional office involved in the provision of water services for Mpumalanga is situated in Nelspruit. Different directorates of the national office are involved in providing water services, depending on whether the water is supplied for the support of life and personal hygiene or for irrigation, urban or industrial use. The nine regional offices are also involved in the provision of water services to water users for the purpose of irrigation, urban and industrial use and power generation. Each regional office has various district offices for specific areas, each with various satellite offices responsible for the operation and maintenance of the works in that area. In practice however, due to the shortage of manpower and historical developments, there are deviations. For example, the satellite office at the Loskop dam government water scheme that supplies water for irrigation and urban purposes is managed from Pietersburg in the Northern Province and not from Nelspruit in Mpumalanga.

Monitoring and regulating impacts on water resources

The DWAF functions relating to the monitoring and regulating of the impact on water resources include:

- the development of a water use policy
- the management of water use and conservation

The impacts of the activities should be monitored and regulated such that optimum, long-term, environmentally sustainable social and economic benefits will be derived for the society from the water source. The DWAF is developing the necessary approaches and measures that regulate these activities. The different approaches and measures will require certain functions to be carried out.

Creating a framework for the provision of water services

The DWAF is involved in creating the necessary framework for the provision of water services to support life and personal hygiene, which is a concurrently national and provincial government functional area as well as a local government functional area.

The functions of the DWAF allocated to this responsibility include:

- development of policies and strategies for organizational and social development through water-services programs
- development of norms and standards and a tariff structure for water services in liaison with organs of the State and other spheres of government
- supporting capacity-building for local government to effect transfer of skills
- supporting sustainable operations of potable water systems
- providing guidelines for water-services development plans
- monitoring and evaluating access to services
- supporting and promoting the implementation of infrastructure projects to provide basic water services

Providing water services

The DWAF is involved in the provision of water to support life and personal hygiene, which is a concurrently national and provincial as well as a local government functional area. This is due to the historical division of South Africa into different administrations, national States and self-governing territories, which has resulted in various organizations becoming involved in the provision of water services to support life and personal hygiene. With the amalgamation and reform that took place since 1994 and to promote water-services delivery during the process of amalgamation and transformation, the DWAF undertook the responsibility for ensuring the effective ongoing operation, planning and expansion of these services in collaboration with the other spheres of government. These services will eventually be transferred to the appropriate organizations.

The DWAF is also involved in the supply of bulk water to other water-service providers and to individual users. The functions of the DWAF allocated to this responsibility include:

- the planning of the provision of water
- the development of the necessary water infrastructure

6.4 Regulators Involved in Water Management

A regulator is usually an organ of the State with a mandate relating to or including certain elements of water management. Regulators can be grouped into those:

- monitoring and regulating activities that might impact on the water resources
- monitoring and regulating activities generating waste and the waste generated that might affect the water resources
- monitoring and regulating land use that might affect the water resources
- developing, implementing and improving the necessary framework relating to the provision of water services

The first three groups of regulators are involved in water resources management while the fourth group is involved in the provision of water services.

6.4.1 Regulators regulating impacts on water resources

The following organizations are regulators monitoring and regulating activities of water users that might impact on the quality, quantity, aquatic biota and riparian habitat of water resources.

The DWAF

The DWAF has already been discussed because of its multiple functions.

The proposed CMA for the Olifants river basin

The proposed CMA for the Olifants river basin will be an organ of the State but it does not form part of any sphere of government. Once the proposed CMA has been established, some of the functions relating to the monitoring and regulating of activities that might impact on the water-resources management could be transferred to the agency.

6.4.2 Regulators regulating activities generating waste

The following organizations are regulators monitoring and regulating the activities generating waste and the waste generated that might affect the quality, aquatic biota and riparian habitat of water resources.

Department of Environmental Affairs and Tourism

The Department of Environmental Affairs and Tourism is an organ of the State in the national sphere of government. This department is, among others, the custodian of the country's environment, which is a concurrently national and provincial government function.

As far as the generation of waste that might affect water resources is concerned, the Minister of Environmental Affairs and Tourism identified certain activities in terms of the Environment

Conservation Act, 1989 (Act 73 of 1989) that might have a substantial detrimental impact on the environment. Some of the relevant activities are:

- The construction and upgrading of structures that may result in waste entering the water resources, for example, the washing of stripped topsoil into a water resource from a construction area
- The change of land use that may result in waste entering the water resources, for example, the zoning of an industrial area next to a water resource resulting in pollutants from the industries entering the water resource
- Exercising of activities that may result in waste entering the water resources, for example, operating a feedlot, which generates volumes of manure that might be washed into a water resource.

These activities may only be done if authorized and must be carried out according to the conditions attached to the authorization, which could include regulating the generation of waste. An authorization may only be given after consideration of an environmental impact assessment, which could include the impact of waste on water resources. Authorizations are given by the organs in the national, provincial or local sphere of government, depending on the type of activity and the availability of capacity. This process could lead to more responsible and environmentally sensitive development and thereby also contributing in regulating waste that might enter water resources.

Although many developers and water users still have no real consideration for the environment, most people comply with these requirements.

The Department of Environmental Affairs and Tourism has a national office, with no regional offices. There are various satellite offices looking after specific aspects, like weather and sea fisheries.

Department of Minerals and Energy

The Department of Minerals and Energy is an organ of the State in the national sphere of government. This department is responsible, among other items, for the minerals, which is an exclusively national government function.

As far as the generation of waste that might affect water resources is concerned, the Department of Minerals and Energy is responsible for the following functions relating to minerals:

- authorizing the prospecting and mining of minerals
- approving environmental management programme reports (EMPRs) for the effective rehabilitation of land disturbed due to mining activities
- issuing closure certificates to release mines from further regulatory responsibilities concerning environmental management and conservation

Managing the activities of mines incorporates a process starting at the commencement of mining and continues throughout the life of a mine.

The EMPRs were introduced in 1991 and it seems that mines are willing to comply with this EMPR procedure.

This procedure could lead to more responsible and environmentally sensitive mining and thereby also contributing to regulating waste that might enter the water resources.

The Department of Minerals and Energy has a national office and nine regional offices, which do not form part of the provincial government. The boundaries of the regional offices are based on the provincial boundaries, although exceptions are made to ensure efficiency. The offices for the different regional offices within the Olifants river basin are situated in the following towns:

- Mpumalanga regional office in Witbank, responsible for the mines within the Gauteng and Mpumalanga within the basin
- Northern Province regional office in Pietersburg, responsible for the mines within the Northern Province within the basin

Department of Agriculture in the National Government

The Department of Agriculture is an organ of the State in the national sphere of government. This department is responsible for agriculture, which is a concurrently national and provincial government function.

The mandate of this department is, among others, to guide and support capacity building, sustainable resources use, production, trade and research in agriculture to maximize the contribution of the agriculture sector to economic growth, equity and social development in a sustainable manner.

As far as the generation of waste that might affect water resources is concerned, this department is engaged in the following activities:

- Establishing policy and implementing norms and standards, which promote the protection, stabilization and rehabilitation of soil and water.
- Planning, designing and constructing key soil conservation works to protect, stabilize and rehabilitate degraded land where such measures are in the national interest. The focus of these works has shifted from large infrastructure to conservation works at rural areas.

The implementing of norms and standards and constructing of soil conservation works could lead to more responsible agricultural practices and thereby could also contribute to regulating waste that might enter water resources.

This department has a national office and nine regional offices, which do not form part of the provincial government. The boundaries of the regional offices are based on the provincial boundaries. The offices for the different regions within the Olifants river basin are situated in the following towns:

- Mpumalanga regional office in Nelspruit
- Northern Province regional office in Pietersburg

Department of Environment and Agriculture of the Northern Province

The Department of Environment and Agriculture of the Northern Province provincial government is an organ of the State in the provincial sphere of government. This department is responsible, among other things, for the competencies in agriculture and environment, which are concurrently national and provincial government functions.

As far as the generation of waste that might affect water resources is concerned, this department is engaged in the following activities:

- evaluating environmental impact assessments and issuing the necessary authorizations required in terms of the Environment Conservation Act of 1989.
- assisting the Department of Agriculture in the national sphere of government, on an agent basis, to exercise its functions on a local level.

The office of the Department of Environment and Agriculture of the Northern Province is in Pietersburg.

The Departments of Environmental Affairs and of Agriculture of Mpumalanga

The Department of Environmental Affairs and the Department of Agriculture of the Mpumalanga provincial government are organs of the State in the provincial sphere of government. These two departments are responsible for the competencies in environment and agriculture, respectively, which are concurrently national and provincial government functions.

As far as the generation of waste that might affect water resources is concerned, these departments are engaged in the following activities:

- evaluating environmental impact assessments and issuing the necessary authorizations required in terms of the Environment Conservation Act of 1989
- assisting the Department of Agriculture in the national sphere of government, on an agent basis, to exercise its functions on a local level

The offices of these two departments are in Nelspruit.

6.4.3 Regulators regulating land use

The following organizations are regulators that monitor and regulate land use that might affect water resources:

Department of Land Affairs

The Department of Land Affairs is an organ of the State in the national sphere of government. This department is responsible, among other items, for the constitutional duty of the State to take reasonable steps to enable citizens to gain equitable access to land, to promote security of tenure and to provide redress to those who were dispossessed of property as a result of past discriminatory laws. Land is an exclusively national government function but many of the department's responsibilities relate also to provincial government functions.

This department follows three land reform programs, namely land redistribution, land restitution and land tenure reform, as set out in the “White Paper on South African Land Policy,” dated April 1997. The department offers a set of grants in support of these programs and is busy with land reform in the Olifants river basin, which might affect water resources.

- **Land redistribution program**

The purpose of the land redistribution program is to provide the poor with land for residential and productive purposes to improve their livelihoods. The government provides a single, yet flexible, redistribution mechanism that can embrace the wide variety of land needs of eligible applicants. Land redistribution is intended to assist the urban and rural poor, farm workers, labor tenants, as well as emergent farmers. The program enables eligible individuals and groups to obtain a settlement/land acquisition grant to a maximum of R15,000 (In 2000, US\$1.00 = R7.00) per household for the purchase of land directly from willing sellers, including the State.

Redistribution projects will give priority to the marginalized and women in need and projects that can be implemented quickly and effectively. In each case, viability and sustainability of the projects must be demonstrated.

- **Land restitution program**

The purpose of the land restitution program is to restore land and provide other remedies to people dispossessed by racially discriminatory legislation and practice. This will be done in such a way as to provide support to the process of reconciliation and development, and with regard to the overarching consideration of fairness and justice for individuals, communities and the country as a whole.

A restitution claim qualifies for investigation by the Commission on Restitution of Land Rights provided that the claimant was dispossessed of a right in land after 19 June 1913, as a result of racially discriminatory laws or practices, or was not paid just and equitable compensation. Claims arising from dispossession prior to 1913 may, under certain circumstances, also be accommodated.

- **Land tenure reform**

Land tenure reform is a particularly complex process. It involves interests in land and the form that these interests should take. The solutions to these problems may entail new systems of landholding, land rights and forms of ownership, and may, therefore, have far-reaching implications.

Implementing land reform programs might affect water resources. Water is needed for the land made available for the programs and waste generated on the land might affect water resources. The land development policies require that land development objectives should be developed for certain areas. The Department of Land Affairs has a head office and nine regional offices. The boundaries of the regional offices are based on the provincial boundaries. The regional offices for the different areas within the Olifants river basin are situated in the following towns:

- For the area in Mpumalanga, the office is in Ermelo.
- For the area in the Northern Province, the office is in Pietersburg.

Department of Housing

The Department of Housing is an organ of the State in the national sphere of government. This department is responsible for the constitutional duty of the State to ensure that everyone has access to adequate housing. This is a concurrently national and provincial government function.

Implementing this constitutional duty might impact on water resources in that water is needed where houses are provided and the waste generated due to the provision of these houses might affect water resources.

The Department of Housing has a head office and nine regional offices. The boundaries of the regional offices are based on the provincial boundaries. The regional offices for the different areas within the Olifants river basin are situated in the following towns:

- For the area in Mpumalanga, the office is in Ermelo.
- For the area in the Northern Province, the office is in Pietersburg.

Departments of the Northern Province

The Department of Agriculture, Land and Environmental Affairs, the Department of Education, Arts, Culture and Sport, the Department of Local Government and Traditional Affairs, the Department of Finance, Trade and Industry and the Department of Housing and Water of the Northern Province are organs of the State in the provincial sphere of government. These departments are responsible, among others, for the following competencies:

- provision of housing, industrial promotion, nature conservation, regional planning and development, trade, tourism and urban and rural development, which are concurrently national and provincial government functions
- abattoirs, provincial planning, provincial recreation and provincial amenities, which are exclusively provincial government functions

These functional areas all relate to land uses that might affect water resources. The offices of these departments are in Pietersburg.

Departments of Mpumalanga

The Department of Local Government, Housing and Land Administration, the Department of Economic Affairs and Gaming and the Department of Arts, Culture, Sport and Recreation of Mpumalanga are organs of the State in the provincial sphere of government. These departments are responsible, among others, for the following competencies:

- provision of housing, industrial promotion, nature conservation, regional planning and development, trade, tourism and urban and rural development, which are concurrently national and provincial government functions

- abattoirs, provincial planning, provincial recreation and provincial amenities, which are exclusively provincial government functions

These functional areas all relate to land uses that might affect the water resources. The offices of these departments are in Nelspruit.

6.4.4 Regulators creating the necessary framework for the provision of water services

No attempt will be made to classify the different regulators creating the necessary framework for the provision of water services into groups (for example, those involved in the provision of services related to small-scale irrigation, support of life and hygiene, etc.). This is mainly because of time constraints and because the role of some organizations must still evolve within the new institutional framework. Furthermore, an organization might be involved in more than one sector.

The following organizations are regulators developing, implementing and improving the necessary framework related to the provision of water services.

DWAF

The DWAF has already been discussed because of its multiple functions.

Department of Provincial and Local Government

The Department of Provincial and Local Government is an organ of the State in the national sphere of government. This department, together with the provincial government, is responsible for the effective performance by municipalities of their functions. One of these functions is the provision of water and sanitation services limited to potable water supply systems and domestic wastewater and sewage disposal systems for the inhabitants of the municipalities' areas of jurisdiction.

This department is responsible for:

- setting the overall strategic framework for local government to operate
- providing the legislative framework for local government to operate
- coordinating the functioning of local government
- providing the framework for local government capacity-building
- providing support for local government
- providing legislation to determine local government's "equitable share" of revenue raised nationally and a range of other financially related topics such as municipal budgetary forms and processes
- monitoring how the different organs of State involved in local government perform their functions
- intervening with, or where provincial government fails to intervene, without provincial government, to ensure that local government fulfill its functions.

The Department's office is in Pretoria.

Northern Province and Mpumalanga provincial governments

The Department of Local Government and Traditional Affairs in the Northern Province and the Department of Local Government, Housing and Land Administration in the Mpumalanga provincial government are responsible for:

- setting the overall strategic framework for their province with respect to the relevant organizations in the local sphere of government
- developing and implementing the legislative framework for the relevant organizations in the local sphere of government
- coordinating the functioning of the relevant organizations in the local sphere of government
- implementing the framework for local government capacity-building
- ensuring compatibility of municipal plans with provincial plans
- providing support for the relevant organizations in the local sphere of government
- monitoring the relevant organizations in the local sphere of government to ensure that a high standard of services and good government are maintained,
- intervening to ensure that the relevant organizations in the local sphere of government fulfill their functions.

The office of the Department in the Northern Province is in Pietersburg and the office of the Department in Mpumalanga is in Nelspruit.

6.5 Water-Service providers

A water-service provider could be an individual or an organization providing water services to water users or to another water-service provider. A water-service provider need not be an organ of the State and may even be a private-sector organization. Water-service providers can be involved in providing the following:

- services like the abstraction, conveyance, treatment and distribution of water, which must be potable in certain cases, to water users of the different sectors, for example, for support of life and personal hygiene, small-scale irrigation, commercial irrigation, industrial purposes, power generation, etc.
- services like the collection, removal, treatment and disposal of waste generated due to the use of water

- services like the provision of resources, assistance and information associated with the provision of services (for example, financial and technical)
- water services to other water-service providers

The different water-service providers are not classified into specific groups. This is mainly due to time constraints and because the role of some must still be resolved within the new institutional framework. Furthermore, a service provider can fall into more than one group.

The following organizations are water-service providers.

DWAF

The DWAF functions have already been discussed because of its multiple functions.

Water boards

The Minister may by notice in the Government Gazette, in terms of the WSA, establish a water board. The primary activity of a water board is to provide water services, mainly potable water to water-services institutions within its service area. A water board may perform an activity other than its primary activity only if it is not likely to limit the water board's capacity to perform its primary activity and it is in accordance with the board's policy statement and business plan. These secondary activities may include:

- A water board is an organ of State, but operates as an independent entity that supplies water to consumers. It is not an association of water users.
- Providing management services, training and other support services to water-service providers.
- Supplying untreated or non-potable water to end users who do not use the water for household purposes.
- Providing catchment management services to, or on behalf of, the responsible authorities.
- With the approval of the water-services authority having jurisdiction in the area, supplying water directly for industrial use, accepting industrial effluent and acting as a water-service provider to consumers.
- Providing water services in a joint venture with water-services authorities.

The following water boards are situated in the Olifants river basin:

- the Lepelle Northern Water Board, with its service area mainly in the lower reaches of the Olifants river basin in the Northern Province, which includes the area of the case studies
- the Ikangala Water Board, with its service area mainly in the catchments of the Olifants river and Klein Olifants river upstream of the Arabie dam

Small portions of the services areas of the Magalies Water Board, the Rand Water Board and the Bushbuckridge Water Board also extend into the Olifants river basin. These boards will probably not obtain water from the water resources in the Olifants river basin. The Bushbuckridge Water Board may expand its area of jurisdiction to the west to include areas within the Olifants river basin. The Magalies Water Board and the Rand Water Board, which are well-established water boards, can be involved in supplying support services and guidance to the Ikangala Water Board and the Lepelle Northern Water Board.

Both the Ikangala Water Board and the Lepelle Northern Water Board are newly established water boards and their roles must still be resolved within the new institutional framework. Both these boards are developing their first business plans to show how they will comply with their responsibilities. The Lepelle Northern Water Board has no specific programs as yet for the areas referred to in the case studies.

Figure 6.2 shows the services areas of the different water boards within the Olifants river basin.

Local government structures

The structures in the local sphere of government are water-service providers, mainly for domestic purposes. The existing system of local government is to be restructured and will be transformed and incorporated into the water management framework.

The restructured system in the Olifants river basin will consist of district councils together with local councils. These will have a similar role to that of the existing district councils and transitional local councils (TLCs). See figure 6.3 for the area of jurisdiction of the new demarcated district councils together with the boundaries of the local councils for which they will be responsible. Certain district and local councils will fall within the boundaries of the Northern Province as well as Mpumalanga and will be known as cross-border district and local councils. The area consisting of the Kruger National Park will be known as a management area and will also fall under the jurisdiction of a district council.

The existing structures in the local sphere of government within the Olifants river basin are:

District Councils: Generally, district councils are responsible for bulk service functions to the rural councils, and in some areas (where the inhabitants are poor and with limited, insufficient or no access to resources, information, services and enough water of good quality) they also provide municipal services directly to the public.

The district councils also assist in the development of structures in rural areas. Most district councils have sufficient managerial and technical capacity to fulfill their functions. However, some have been slow to implement functions (including support to rural municipalities, and direct delivery on their behalf). Others have been innovative in assisting small towns and rural areas, and in extending services to poor rural communities. Some have adopted a flexible approach to address priority issues that are not formally within their functional scope. Most, however, have not adopted a major role as development agents. There are considerable variations in the size of the budgets and staffing complements of the existing district councils. Their powers and functions are determined by provincial proclamations that differ from province to province. The district councils build either on the structures of the previous framework as applicable until 1994 or were established from scratch during the transition period after 1994. District councils have a strong redistributive function, which is not without problems. The larger portion of a district council levy income is collected from urban areas. Urban municipalities complain that not enough of this

Figure 6.2. Services areas of water boards.

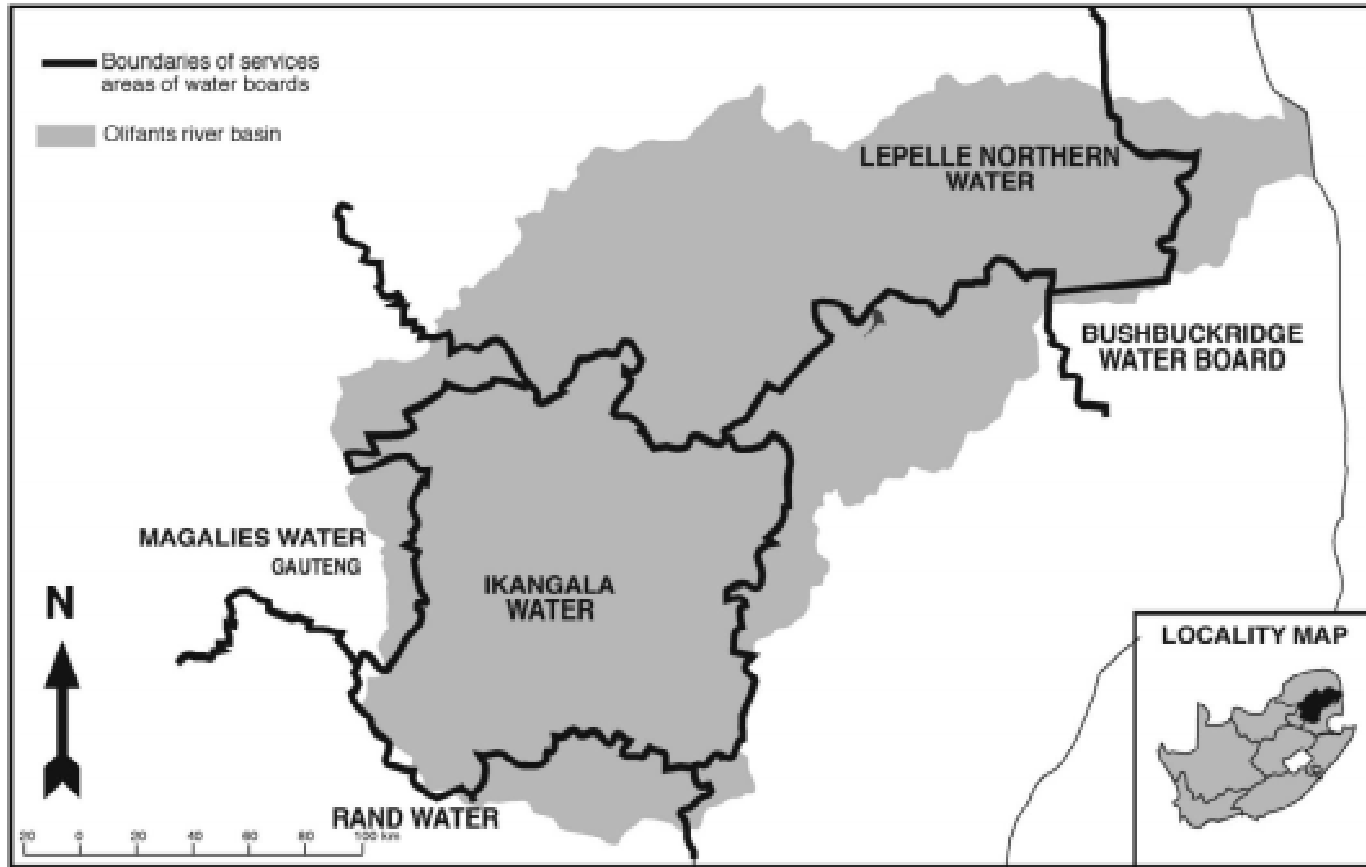
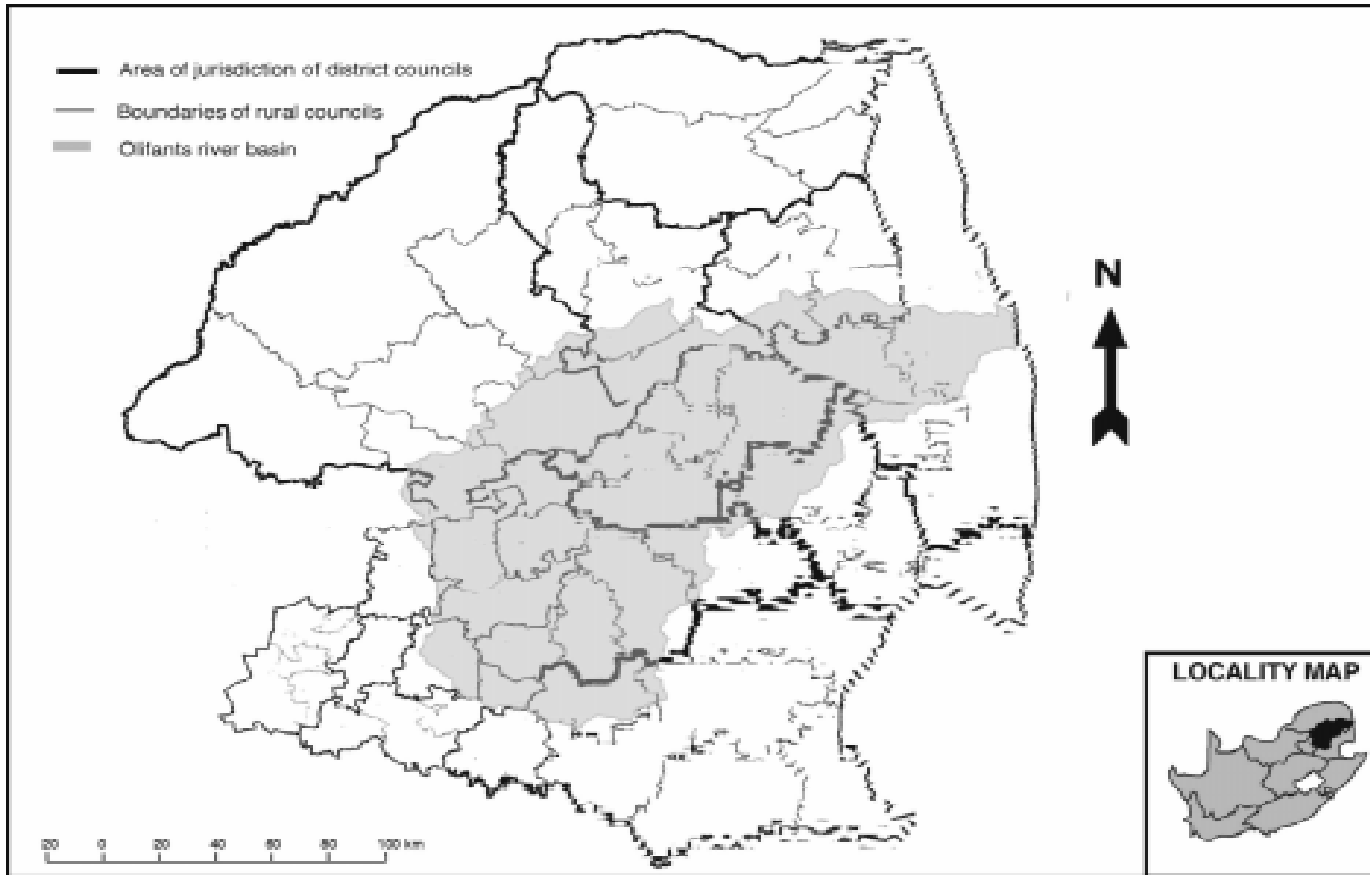


Figure 6.3. Areas of jurisdiction of the new local government structures.



income is reinvested in urban infrastructure. The role of district councils in redistribution is complicated in some cases by powerful special interest groups that continue to wield undue influence over the allocation of funds.

District councils operate in very different contexts and serve areas of different sizes and settlement patterns, ranging from areas of dense settlements to vast, sparsely populated regions.

Rural Councils: There are three forms of local government in rural areas, namely, transitional representative councils (TRepCs), transitional rural councils (TRCs) and district councils with the remaining areas. The forms of local government in the Olifants river basin are TRepCs and TRCs.

The TRepCs have only a representative function and no executive powers. Although they can assume executive powers as their capacity increases, in most cases, few powers and duties have been devolved to TRepCs due to their lack of capacity. The TRepCs generally do not have their own administrations, and are little more than advisory structures to district councils. They rely on district councils for administrative, technical and financial support. In practice, these councils are called TLCs, but they are actually not, because they have no executive functions or powers.

The TRCs have similar powers to those of TLCs, although not all TRCs fulfill all the functions of a TLC. The TRCs have taxing powers, but they have limited potential to generate adequate tax and service charge revenues. They rely on grants from and through the district councils. This financial support is limited, and the basis for transfers is not clearly defined.

The existing district and rural councils within the Olifants river basin: The existing district and rural councils within the Olifants river basin are:

- **Northern District Council:** The Northern District Council in the Northern Province has its head office in Pietersburg, with responsibility for some of the rural councils in the Olifants river basin. The Northern District Council was established on 31 July 1995 during the transition period. This council is deemed to be a municipality with the same functions as other municipalities and it must give preference to the rendering of primary local government functions to the different rural councils under its jurisdiction. The district council should do this for a specific rural council until the Member of the Executive Council of the Northern Province is satisfied that the rural council is able and competent to render a specific function by itself and the member has entrusted those functions to that rural council. Only TRepCs are within the Northern District Council's jurisdiction. These are Dilokong, Ohrigstad/Eastern Thubatsi, Thubatse Steelpoort, Ngwaritsi/Makhudu-Thamage, Hlogotlou/Lepelle, Greater Nebo-North, Zebediela, Noko-tlou/Fetakgomo, Lebowakgomo, Maraba-Mashashane/Maja, Mankweng, Hoedspruit/Makutswi, Letsitele/Gravelotte and Bushbuckridge North.
- **Highveld District Council:** The Highveld District Council in Mpumalanga has its head office in Middelburg. This district council was also established during the transition period, with responsibility similar to that of the Northern District Council. Both TRepCs and TRCs are within the Highveld District Council's area of jurisdiction. The TRepCs are Belfast rural, Middelburg rural, Groblersdal and Witbank rural and the TRCs are Ekgangala, Kwamahlanga, Mkobola, Moutse, Mbibane, Mdutjane, Moutse and Mathanjana.

- **Lowveld Escarpment District Council:** The Lowveld Escarpment District Council in Mpumalanga has its head office in Nelspruit. This district council was also established during the transition period, with responsibility similar to that of the Northern District Council. Only TRepCs are within the Lowveld Escarpment District Council's area of jurisdiction. These are Lydenburg rural and Pilgrims Rest.
- **Bushveld District Council:** The Bushveld District Council in the Northern Province has its head office in Nylstroom. This district council was also established during the transition period, with responsibility similar to that of the Northern District Council. Only one TRepC is within the Bushveld District Council's area of jurisdiction. This is Naboomspruit/Roedtan/Thusang. Most of the people within the area of jurisdiction of this council obtain water from resources outside the Olifants river basin.
- **Eastvaal District Council:** The Eastvaal District Council in Mpumalanga has its head office in Secunda. This district council was also established during the transition period, with responsibility similar to that of the Northern District Council. Only TRepCs are within the Eastvaal District Council's area of jurisdiction. These are Bethal rural and Highveld ridge. Most of the people within the area of jurisdiction of these councils obtain water from resources outside the Olifants river basin.
- **Eastern Gauteng Services Council:** The Eastern Gauteng Services Council in Gauteng has its head office in Germiston. This district council was built on the structures of the previous framework, with responsibility for bulk water supply and assisting rural councils in its area of jurisdiction, and the provision of water services. Only TRepCs are within the Eastern Gauteng Services Council area of jurisdiction. These are Bronberg and the Elands river. Most of the people within the area of jurisdiction of these councils obtain water from resources outside the Olifants river basin.

Figure 6.4 shows the area of jurisdiction of the existing district councils within the Olifants river basin together with the boundaries of the rural councils for which they are responsible.

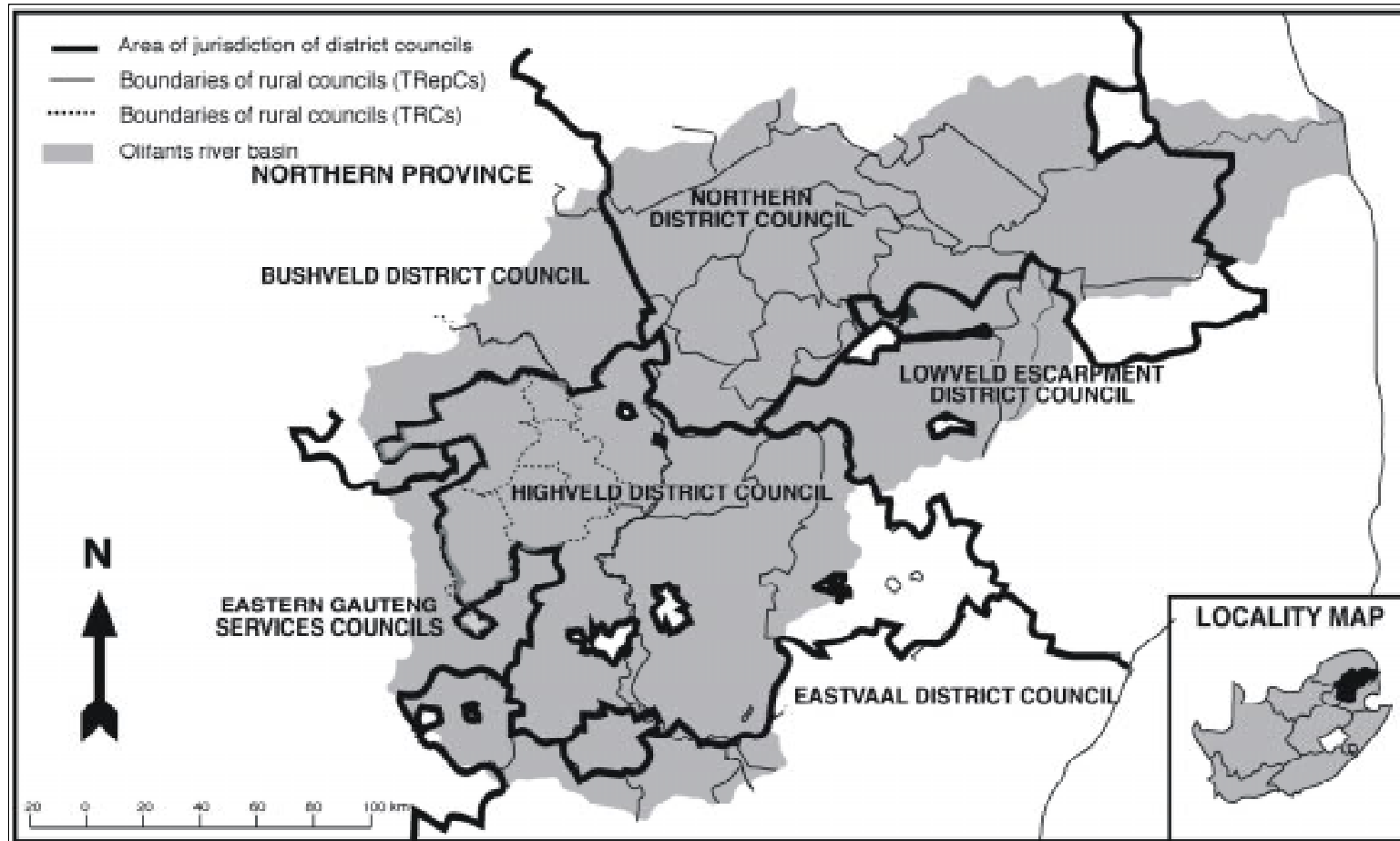
Transitional Local Councils: A TLC model has been applied to most urban areas, ranging from major cities to small rural towns, with very different economic and social realities. There are major variations in the capacities of TLCs serving cities and larger towns on the one hand, and those serving small towns on the other. The TLCs in cities and larger towns face problems of poverty and uneven development, but have relatively solid administrative and financial capacity. This enables them to address their current responsibilities to a significant extent with their own resources.

Many small TLCs, on the other hand, do not have the financial, administrative or service-delivery potential to provide adequate services and governance without strong external support or rationalization, i.e., restructuring and consolidation. District Councils are increasingly providing financial, accounting and other administrative services for smaller TLCs on an agency basis.

The TLCs in the Olifants river basin are Kriel, Delmas, Middelburg, Witbank, Belfast, Lydenburg, Steelpoort/Burgersfort/Ohrigstad, Groblersdal, Phalaborwa, Marble Hall, Delmas, Cullinan/Rayton, Bronkhorstspuit and Ogies/Phola.

Figure 6.5 shows the area of jurisdiction of the different TLCs within the Olifants river basin.

Figure 6.4. Area of jurisdiction of the existing district and rural councils.



Water-services committees

The Minister may, by notice in the Government Gazette, in terms of the WSA, establish water-services committees. A water-services committee is a legal entity with its own identity. The function of a water-services committee is to provide potable water to consumers within its service area, typically a village.

A water-services committee may only be established if the water-services authority with jurisdiction in the area is not able to provide water services effectively in that area.

No water-services committees have been established in the Olifants river basin as yet.

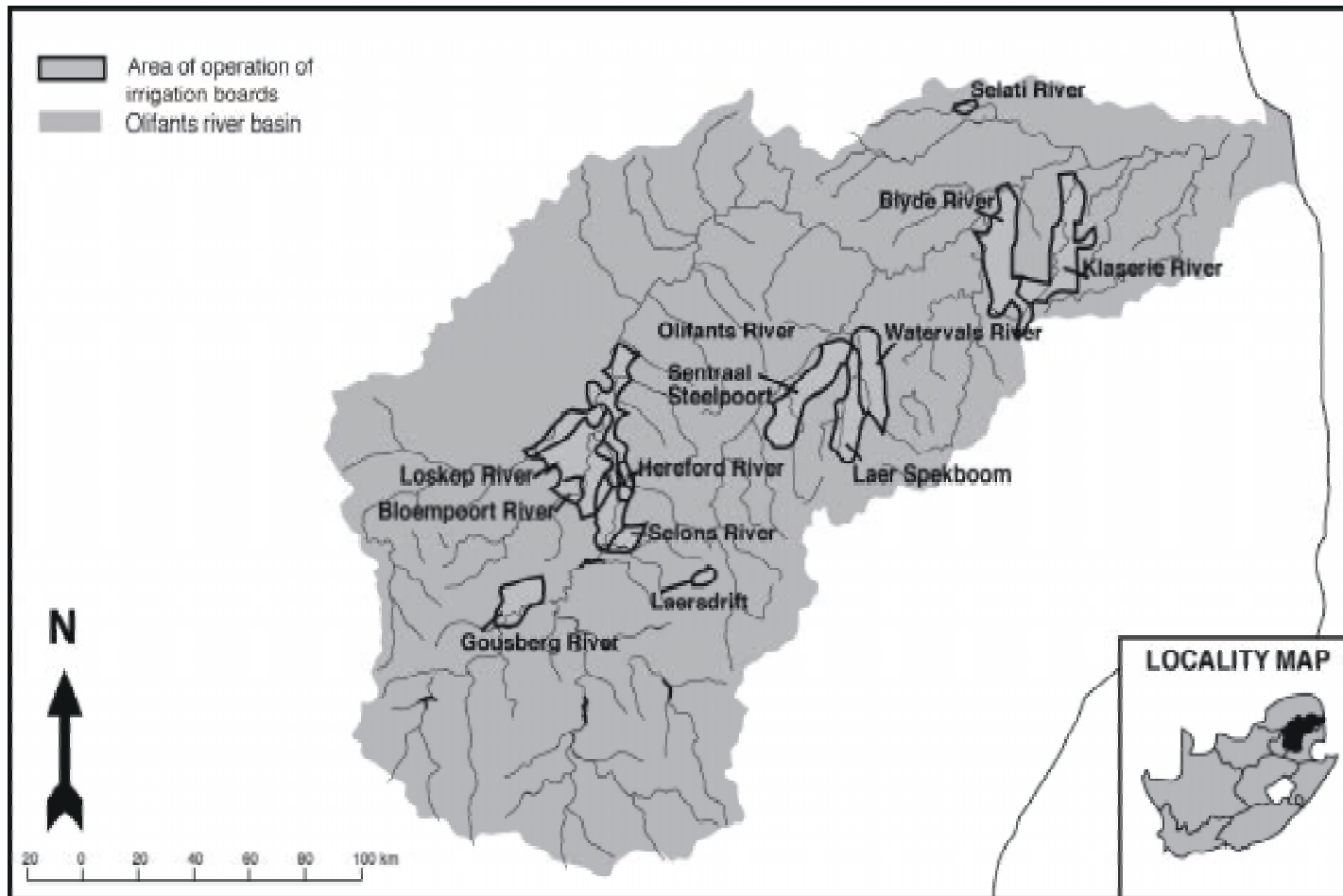
Water user associations (WUAs)

There are about 17 irrigation boards in the Olifants river basin, which are to be transformed into WUAs. Figure 6.6 shows the area of jurisdiction of the different irrigation boards within the Olifants river basin. These can be classified into the following groups depending on their purpose:

- *Irrigation boards with waterworks belonging to them.* The water is diverted from rivers into these works and conveyed to the offtakes of the different irrigators under their jurisdiction. These boards are Kaspersnek Vyehoek, Lower-Spekboom, Laersdrift, Selati, Selons, Central Steelpoort, Spekboom and Trans-Elands irrigation boards.
- *Irrigation boards with waterworks belonging to them.* The water is obtained from works belonging to the State, and the boards convey the water to the offtakes of the different irrigators under their jurisdiction. These boards are Bloempoot, Blyde, Groot Dwars, Hereford, Klaserie and Watervals irrigation boards.
- *Irrigation boards with weirs belonging to them.* The water is obtained from waterworks belonging to the State, and is released into the river. The abstraction of water by the different irrigators under the irrigation board's jurisdiction is controlled by the boards, with works belonging to the irrigators. Only one irrigation board of this type is in the basin, namely the Olifants River Irrigation Board.
- *Irrigation boards with no water works belonging to them.* The abstraction of water flowing naturally in the river by the different irrigators under the boards' jurisdiction, with water works that belong to the irrigators, is controlled by these boards. Only one irrigation board of this type is in the catchment, namely the Gouwsberg Irrigation Board.
- *Irrigation boards with no waterworks belonging to them.* Water is obtained from and conveyed by works belonging by the State to the offtakes of the different irrigators under the jurisdiction of the irrigation boards. These boards have a supervisory and advisory responsibility. Only one irrigation board of this type is in the basin, namely the Loskop Irrigation Board.

There are other applications in the pipeline for the establishment of a WUA, e.g., the Boschkloof small-scale irrigation scheme.

Figure 6.6. Area of operation of the different WUAs (irrigation boards).



6.6 Facilitators

A facilitator is mostly a voluntary organization usually not involved in water management per se. A facilitator's role is usually to bring water users, water-service providers and regulators together to help achieve the objectives of water management. The functions of facilitators may relate to the following:

- promoting communication, facilitation, negotiation and mediation between regulators, water-service providers and water users
- education of and creating awareness among water users
- providing financial, technical and other assistance to water users
- involvement in actual water management functions

The different facilitators are not classified into specific groups, mainly because the role of some must still evolve within the new institutional framework. Furthermore, not all facilitators have been identified as yet.

The following organizations are facilitators:

Traditional leaders

The system of traditional leaders is based on custom and tradition. Due to this, each tribe has a chief. If a chief dies, the eldest son of the deceased chief becomes the next chief. The chief is the tribal head for an area, which could include various villages. Each village usually has a headman who represents the chief of that area in the village.

The Constitution of the Republic of South Africa of 1996 recognizes the institution, status and role of traditional leadership, according to customary law, but subject to the Constitution. A traditional authority that observes a system of customary law may function subject to any applicable legislation and customs including amendments to that legislation or those customs.

National legislation may provide a role for traditional leadership as an institution at local level on matters affecting local communities. As far as water management is concerned, no legislation has been made as yet.

Water committees

Villages establish nonstatutory bodies called water committees. The role of these committees is to consult with water-management organizations and other persons involved in water management to put forward the needs of the villages and to report back to the villages.

The members of the committees are elected by the people of the villages at a mass meeting organized usually by the CIVICS, an NGO.

NGOs and Community-Based Organizations (CBOs)

There are various NGOs and CBOs in the Olifants river basin taking an active part in water management. Many of these are newly established organizations and their role, as well as that of the old organizations, must still be resolved within the new institutional framework.

Fora

There are various fora in the Olifants river, including the following:

Provincial water liaison committee: The provincial water liaison committee is an interdepartmental committee established by the DWAF for each province. The members of each committee are the Regional Director of the DWAF responsible for water resources management and representatives of the provincial departments of public works, agriculture, local government and environment. There are various subcommittees, for example, an irrigation action committee, provincial planning forum and area planning fora. Other organizations are also represented, for example in the Northern Province there are five area-planning fora and the main role players of these are the local governments with the focus on water supply to the communities.

The purpose of the provincial water liaison committee is to coordinate planning and to share water-related information.

South African Local Government Association: The South African Local Government Association is a national association to which structures of the local sphere of government can belong. This association allows the local government to participate in governmental structures and to consult with national and provincial governments.

For each province, a provincial association is established. The names of these associations are LOGAM in Mpumalanga and Northern Province Local Government Association in the Northern Province.

Olifants river forum: The Olifants river forum (ORF) came about in 1994 when a group of people discussed the health of the Olifants river and realized that if something drastically was not done, the river would not be able to sustain future generations. The ORF was formally launched with the membership, in the early days, consisting of mining houses, Eskom, Sasol, industry, the DWAF and the Kruger National Park. Individual membership has grown steadily over the years. The mission of the forum is to strive for the promotion and coordination of voluntary cooperation between all parties to help with the improvement, conservation and sustainable existence of the Olifants river to the benefit of man and the environment.

The ORF is to be incorporated into the new institutional framework with a structure and constitution that will make it accessible to any person in the catchment. The vision of the ORF and its objectives are in support of the vision of the DWAF in the establishment of a CMA in the basin. The structure of the ORF makes provision for any stakeholder to be represented and to provide inputs into the management of the ORF. One of the primary tasks of the ORF is to create awareness and community participation in the protection of the Olifants river and its tributaries.

Local economic development group: This is a forum for the town engineers from the different local authorities near the Witbank TLC to discuss and resolve matters of mutual interest relating to development in the area.

Small-scale irrigation farmers' fora: During the public process of the project to establish the CMA for the Olifants river basin it became evident that the small-scale irrigation farmers' sector was not organized adequately to participate effectively in the consultative structures of the proposed CMA. As a result, these fora were established to allow this sector to participate more extensively.

Fora for specific purposes or projects: There are numerous fora to get specific projects from the ground. Some of them are the Simunye Youth and Hlarehane projects for agriculture, Xinhlabanyi Forum for poultry, Vukanni and Tiyane projects for gardening, Rural Women's Movement, Youth Development Forum, Environmental Monitoring Group, Madibaneng Development Forum and the Community Planning Forum, Laersdrift.

There are also fora to get small-scale business requiring water off the ground, for example brick-making, pottery and car-washing.

Agri SA

Agri SA is an autonomous body and represents the farmers' viewpoints on agricultural affairs. This Union is a powerful lobbying organization and has direct access to the organs of the State and to other authorities in the Republic. The Union can be an important actor in water management since its members utilize large tracts of privately owned land in the basin and are the largest water user group in the basin.

Chamber of Mines

The Chamber of Mines is an autonomous body that represents the mining industry's viewpoints. The Chamber is a powerful lobbying organization and has direct access to the organs of the State and to other authorities in the Republic. The Chamber can be an important actor in water management since its members' activities may impact on the quality and quantity of water resources.

6.7 Conflict Resolvers

Conflict resolvers could be individuals or organizations helping to resolve conflicts on any water matter between regulators, service providers and water users. Not all the conflict resolvers are discussed in this document, mainly because the role of certain organizations relating to conflict resolution within the new institutional framework must still evolve.

The Water Tribunal established by the NWA will play a major role in resolving conflicts. The Water Tribunal is an independent body whose members are appointed through an independent selection process. The Tribunal hears appeals against certain decisions made by the Minister and CMAs. A person may appeal to a High Court against a decision of the Tribunal on a question of law. The NWA also provides for disputes to be resolved by mediation, if so directed by the Minister of Water Affairs and Forestry.

6.8 Other Interested Groups

The following organizations also have an interest in water management within the Olifants river basin, namely financiers, manufacturers, consultants and researchers. These have not been identified or classified.

Matters over which a Self-Governing Territory Had Governing Status

A self-governing territory had governing status with regard to the following matters related to water:

- The planning, establishment, ..., coordination, execution and carrying on of industrial, ..., mining, ..., business undertakings and projects.
- Agricultural, including soil and veld conservation, ..., irrigation, forestry, agricultural extension services....
- The provision of financial assistance to persons, ..., who carry on or undertake to carry on farming operations.
- Nature conservation.
- Public works and undertakings, roads, ..., and any works considered necessary for the purposes of sanitation or of securing satisfactory water supplies or of preventing or combating soil erosion.
- Fees payable for services rendered by a department, ..., and taxes payable by a specified category or group of persons in respect of services made available by any such department.
- Townships and settlements (including the establishment of local bodies).
- Conservation of the environment.
- Land matters, including the acquisition, alienation, grant, occupation and possession of land, or any right to the land.
- The conservation and utilization of water sources and resources including the prevention of pollution, and other activities, which can change the natural occurrence of water sources.
- Mineral matters.

Provisions of the Repealed Water Act of 1956

The provisions of the Water Act of 1956 dealing with the determination and granting of rights to use water were based on the two following principles:

- A distinction between two categories of water, namely private and public water. In addition, public water consisted of normal flow and/or surplus water. The determination and granting of rights to use water for each category were different.
- The determination and granting of rights to use water differed for areas not declared government water control areas from areas declared as government water control areas.

Public Water

Public water was water flowing in a river. The water had to be enough for common use for irrigation on two or more pieces of land, which were the subjects of separate original grants riparian to the river. Normal flow was the water, which actually and visibly, flows in the river. It has to be possible to use the water beneficially for irrigation without the aid of storage. Water that was not normal flow was surplus water.

Areas not declared as government water control areas

In areas not declared as government water control areas, the owners of riparian land were entitled to use public water as follows:

- As far as normal flow was concerned, the water was divided between the different pieces of land, which could be used for agriculture and urban purposes. The Water Court had the jurisdiction on how to divide the water in the case of a dispute between the different owners. The Water Court took into consideration, among others, the irrigable area on each piece of land and the quantity of water available (the normal flow) when the share of each piece of land was determined.
- As far as surplus water was concerned, every riparian owner was entitled to use as much of the surplus water that could be used beneficially for domestic, stock watering, agricultural and urban purposes. The owner was not compelled to share the water with other owners, except when a downstream owner was entitled to the water in terms of an agreement. Upstream owners could, therefore, use surplus water in preference to downstream owners.

A person could obtain a right to use public water on non-riparian land or use more water on riparian land than the person is normally entitled to use in the following two manners:

- The first was where all the water was not used on land riparian to the stream, for example, in the case where all the riparian owners had not developed their land for irrigation purposes or if there was more water than could be used on the riparian land. The Water Court could then allow a person permanently or temporarily to abstract that water for agricultural, industrial or urban purposes.
- The second was where the granting of permission was to reduce the rights of other persons in the public interest. The Water Court could then allow a person to abstract a specified quantity of the water for any purpose.

A municipality owning land had the same rights to public water as individuals. It could not, however, claim the benefit of land belonging to its inhabitants for purpose of claiming water rights. If an owner of land in the area of jurisdiction of a municipality was entitled to use public water and the municipality needed that water, the municipality could use the water with the consent of the province concerned and the Minister. The municipality had to pay the owner compensation as agreed upon or, failing such an agreement, as determined by the Water Court.

A permit from the Minister was needed for the construction of waterworks to store or abstract public water (normal flow and/or surplus water) if the total capacity or rate of all the waterworks on a piece of land exceeded:

- In the case of a municipality, 125,000 cubic meters or 5,000 cubic meters per day.
- In other cases, 250,000 cubic meters or 110 liters per second. This capacity or rate could be amended to cater for specific hydrological conditions.

Areas declared as government water control areas

Under certain circumstances, it could be necessary to allocate rights to public water in a specific area differently from the above principles. For that reason, the Minister could, by notice in the Government Gazette, declare an area to be a government water control area. This could be done for the following reasons:

- **Unregulated surface water:** An area could be declared a government water control area if the abstraction, utilization, supply or distribution of public water had to be controlled in the public interest. The area could include non-riparian land. In this area, water for irrigation was not supplied from a government waterworks. If such a work was constructed, water was usually not supplied or reserved for irrigation from that work. The right to the use and control of water in all the public streams in the area is vested in the Minister. No person could abstract, impound or store any quantity of public water or use it inside or outside the area except by virtue of a provisional right, a permission (there are three types) or an allocation.
- **Regulated surface water:** An area could be declared a government water control area if a government waterworks is constructed in the affected land. In this case, water could be supplied from the works for any purpose approved by the Minister or for irrigation. The water could be supplied and distributed by way of canals or by way of releases into a river.

Rights to the use of private water were not affected in a government water control area.

Private Water

Areas not declared as subterranean government water control areas

With some exceptions, the sole and exclusive use and enjoyment of private water are vested in the owner of the land on which the water was found. It was not necessary to take downstream owners or other users into consideration.

A person could only sell, give or otherwise dispose of private water to another person or convey private water across a property boundary if authorized by the Minister.

A person needed no permission to construct, alter or enlarge a waterworks to exercise these rights, except if it was restricted by, for example, an agreement.

Areas declared as subterranean government water control areas

Under certain circumstances, it was necessary to allocate rights to private water in a specific area differently from the above principles. For that reason, the Minister could, by notice in the Government Gazette, declare an area to be a subterranean government water control area. This could only be done if it was desirable in the public interest that the abstraction, use, supply or distribution of the subterranean water should be controlled. The right to the use and the control of subterranean water in the area is vested in the Minister. No person could abstract any quantity of subterranean water and use it inside or outside the area except by virtue of the acknowledgement of existing use, a permission or an allocation.

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