
Water Law, Water Rights and Water Supply (Africa)

MOZAMBIQUE - study country report

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STUDY REPORT

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Table of Abbreviations

ARA	Regional Water Management Authority (<i>Administração Regional de Águas</i>)
CNA	National Water Council (<i>Conselho Nacional de Águas</i>)
CRA	Regulatory Council for Water Supply (<i>Conselho de Regulação de Abastecimento de Água</i>)
DNA	National Directorate of Water (<i>Direcção Nacional de Águas</i>)
DPOPH	Provincial Directorate of Public Works and Housing (<i>Direcção Provincial das Obras Públicas e Habitação</i>)
EPAR	Provincial Warehouse of Rural Water (<i>Estaleiros Provinciais de Água Rural</i>)
FIPAG	Investment and Assets Fund for Water Supply (<i>Fundo de Investimento e Património de Abastecimento de Água</i>)
IFAD	International Fund for Agricultural Development
INAS	National Institute of Social Action (<i>Instituto Nacional de Acção Social</i>)
INDER	Institute for Rural Development (<i>Instituto de Desenvolvimento Rural</i>)
INE	<i>Instituto Nacional de Estatística</i>
INPF	National Institute of Physical Planning (<i>Instituto Nacional de Planeamento Físico</i>)
Mm³	million cubic meters
NEP	National Environmental Policy
NGO	Non-Governmental Organisation
ORAM	Rural Organisation of Mutual Aid (<i>Organização Rural de Ajuda Mútua</i>)
PEC	Programme of Community Education (<i>Programa de Educação Comunitária</i>)
PNSBC	The National Programme of Low Cost Sanitation (<i>Programa Nacional de Saneamento a Baixo Custo</i>)
SADC	Southern Africa Development Community
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund

1. INTRODUCTION

Moçambique, situated in Southern Africa, occupies an area of 799.380 square kilometres.¹ The country is administratively divided in 10 provinces. Moçambique borders in the north with Tanzania, in the northwest with Zambia and Malawi, in the west with Zimbabwe, in the southwest with Swaziland, in the south with South Africa and in the east with the Indian Ocean. It is crossed by ten main rivers that flow towards the Indian Ocean. Moçambique is a downstream country and therefore most of the river waters come from neighbouring countries. As a result Moçambique normally faces two types of situations: floods during the rainy season and drought during the dry season caused not only by action of nature but also by human intervention.

Moçambique is mainly a rural society with a population of around 16 million inhabitants as per 1997 census, with a GDP per capita estimated at US\$127.00.² Around 70% of the rural population and 50% of the urban population live in absolute poverty. This results in a high mortality rate. Moçambique has a rate of 63% of illiteracy from which 80% pertain to women.³ The consumption of treated water for urban domestic use is of about 25 Mm³ a year. This amount, that represents a national coverage of 35%, is far from meeting the needs of the population.

This study aims at identifying and promoting awareness and understanding of the constraints and enabling conditions provided to domestic water supply and sanitation provision for the rural/urban poor by written and unwritten local/national water laws and water rights issues in order to enable the adoption of improved effective, accessible enforceable legislation in line with improved water supply and sanitation. It also aims at analysing the implementation of the national water policy and legislation.

During the short period of the study, the distant province of Niassa was visited where contacts with the staff of the Provincial Directorate of Public Works and Housing, and one extensionist from Wateraid allowed the obtention of some feedback on the conditions of the rural water supply and sanitation. Contacts made in Maputo include the Department of Rural Water, the Legal Department of the Ministry of Public Works and Housing, National Programme of Low Cost Sanitation, UNICEF, INDER, ORAM and Helvetas.

Following this brief introduction, the second part gives the statutory legal framework for water and sanitation, the third part reflects the nature and status of customary water rights, the fourth part gives the nature and status of water supply and sanitation provision, the fifth part discusses the impact of water law and water rights on water supply and sanitation provision/access to the poor, the sixth part concludes the study and the seventh part draws the recommendations.

2. THE STATUTORY LEGAL FRAMEWORK FOR WATER MANAGEMENT AND SANITATION

The statutory legal framework for water and sanitation comprises policy instruments and water legislation. Policy instruments consist of the National Water Policy and the Tariff

¹ Instituto Nacional de Estatística (INE), ed., *Statistical Yearbook*, XIII, (Maputo, 1997).

² *Id.*

³ *Id.*, p.23.

Water Policy. These two policies further liaise with other policies, namely the Land Policy, the Environment Policy and the Rural Development Policy.

The water legislation consists mainly of the 1990 Constitution Act and the Water Law. In addition to these laws, a set of Decrees have been approved for the implementation of the law provisions.

2.1 THE NATIONAL WATER POLICY

The National Water Policy was approved in August 8, 1995, through Resolution 7/95. According to its preamble, the increase of coverage of water supply and sanitation has been, since independence (1975), a priority Government objective in order to improve living conditions. It was; therefore, with that aim in mind that water policy was approved. According to that policy, a short term objective is to meet the basic needs of the people in terms of water and sanitation, in particular for rural people and low income groups. The same policy recognises the economic and social value attached to the water and the need to meet the water demand. In this respect, investment in the water sector should balance the economic development and poverty alleviation and improvement of public health. In addition to that and in order to assure financially feasible services, the price of water should reflect its economic value in order to cover the supply costs. This may seem contradictory but the policy attempts to be realistic and to attract investment to deliver water.

As far as institutional aspects are concerned, water resources management will be decentralised to autonomous entities, at the basin level and water supply and sanitation to provincial level programme management. According to the policy, the role of the Government will be a withdrawal from the delivery of services. Its role is recognised in the policy as being that of defining priorities, guidelines, the minimum levels of services to be provided, delivery of information, promotion and regulation of the activities of water suppliers. Within the water policy, integrated water management is viewed as a means to optimise the benefits of the community, taking into account the environmental impacts and the conservation of the water resources for the future. Regarding investments, new sources of investment will be searched for, with the possibility of the establishment of development funds.

Another objective of the national water policy is the building of the basic infrastructures of water supply for the low income groups; especially those located in rural areas. As we shall see later, the water law already contains some policy elements as it was enacted before a water policy was in place. In this respect, the water policy reiterates what is set already in the Water Law.

The Water Tariff Policy approved in December 1998 through Resolution 60/98, of December 23, 1998, applies to the generality of water uses and contains six main principles for the establishment of water tariffs, namely:

- the principle of user-payer;
- the principle of environment protection and that of efficient use of water, which aim to impose the obligation of all water users to treat water before its discharge to the environment and liability for any contamination that may occur in the water;

- the principle of equity under which the tariffs should be fixed in order to guarantee access to basic supply of water and sanitation services to all strata of the population;
- the principle of sustainability that aims to guarantee investment returns to the companies and other services;
- the principle of decentralisation, and
- The principle of participative management that aims at establishing a close dialogue between suppliers and consumers of water and to encourage mechanisms of decentralisation of the regulatory powers and management to the city councils, other local authorities and the private sector. In this sense, it is aimed to improve water supply and sanitation and to prevent arbitrary establishment of tariffs without having in mind the present economic and social environment and the particular social reality in Moçambique.

As mentioned earlier, the National Water Policy and the Water Tariff Policy are to be implemented in coordination with other sectoral policies. Aspects of these policies are defined in the five year Government Programme approved in May 1995.⁴ The common features of these policies refer to the need for training, decentralisation, community participation, intersectoral coordination and sustainable development of the natural resources.

2.2 NATIONAL WATER LEGISLATION

As mentioned earlier, water legislation consists mainly of the 1990 Constitution Act and the Water Law (Law 16/91, of August 3, 1991). Additional legislation consists of:

- Decree 25/91, of November 14, 1991, that determines the entry into force of the National Water Council (CNA - *Conselho Nacional de Águas*);
- Decree 8/96, of April 2, that alters the composition of CNA;
- Decree 72/98, of December 23, 1998, that establishes the Framework for Delegated Management;
- Decree 73/98, of December 23, 1998, that establishes the Investment and Assets Fund for Water Supply (*FIPAG - Fundo de Investimento e Património do Abastecimento de Água*);
- Decree 74/98, of December 23, 1998, that establishes the Regulatory Council for Water Supply (CRA - *Conselho de Regulação de Abastecimento de Água*);
- Ministerial Diploma 134/93, of November 17, 1993, that approved the Statutes of South Regional Water Management Authority (ARA Sul - *Administração Regional de Águas Sul*) and
- Ministerial Diploma 163/96, of December 25, 1996, that approved the bylaw of ARA – Sul.

2.2.1 Water Law

According to article 2 of the Water Law, the objective of this law is to define in relation to interior waters:

⁴ Approved through Parliamentary Resolution nr 4/95, of May 9, 1995.

- the public domain and the policy for its management;
- the legal regime of the activities of promotion and conservation, inventory, use, control and monitoring of the water resources and
- The competencies given to the Government in relation to the water in the public domain.

This Water Law, approved in 1991, contains in its article 8, policy elements aiming at the continuous supply of drinking water to the people:

- to meet the domestic and hygienic needs and
- To promote campaigns of education and dissemination of information in relation to the main problems with water.

This law calls for intersectoral co-ordination and establishes the National Water Council (CNA - *Conselho Nacional de Águas*) as an advisory committee to the Government in matters concerning the implementation of water policy and relevant aspects of water management. The members of the CNA are the Ministers of Public Works and Housing, of Agriculture and Fisheries, of Foreign Affairs and Cooperation, of Industry, Trade and Tourism, of Mineral Resources and Energy, of State Administration, and of Health.⁵ After the establishment of the Ministry of Coordination of Environmental Affairs, in December 1994, this was also integrated in the CNA. This means that as far as water management is concerned, under the institutional framework it deserves a high attention by the central government. According to article 18, water management is committed to regional water authorities established on the basis of water basins and is mainly directed to regional water resources management. The regional water management authorities were later in 1991 established to be five, namely:

- ARA Sul, that covers the south border of the country to the basin of the Save river inclusive;
- ARA Centro, that covers the basin of the Save river to the basin of the Zambeze river;
- ARA Zambeze that covers the basin of the Zambeze river;
- ARA Centro Norte - that covers the region from the basin of the Zambeze river to Lurio river inclusive and
- ARA Norte - that covers the basin of the Lúrio river to the northern border.

Of these water management authorities, ARA - Sul is the only one implemented, with approved statutes and bylaw. ARA - Centro is in the process of being installed, existing so far a Coordinating Unit established through a Ministerial *Dispatch* of October 16, 1997. The remaining ARAs is not yet operating.

According to water law, water uses are classified in common and private use. Common use aims at meeting the domestic, personal and family water needs, including the drinking of cattle and small scale irrigation. Private use is given by concession or through law. According to the law, the common use is free, that means, it is exempted from licence or concession. The common use is effected according to the traditional practice of water use without altering the quality of water and its flow. In the common use, the deviation of the flow is forbidden, as is the alteration of the banks. This law further recognises the use of

⁵ See Decree 8/96, of April 2, 1996.

water by the traditional land users in the lakes, lagoons and wetlands existing in the land they occupy; the water spring that flows within the limits of their land; the underground water not included in the protected areas, as long as it doesn't disturb their regime, and the rain water.

The land users around lakes, lagoons and wetlands may use riparian water subject to the conditions established in the land use title unless their volume and importance requires a licence or concession. The accumulation, by land users, of rainwater beyond the limits to be defined by regulation, will be subject to the regime of private use of water. In cases of emergency situations such as drought, floods or any other natural disaster, the administrative authorities may impose the common use of water under concession, subject to indemnity. This water law makes reference to regulation not yet approved. This refers to regulation for licensing water rights for private use. The Water Law establishes priority of common use over the private use of water.

2.2.2 The Framework for Delegated Management

The Framework for Delegated Management was established through Decree 72/98, of December 23, 1998, in order to give effect to the principle of decentralization. According to the preamble of this Decree, there is a recognition that water supply is inefficient so that there is a need for its restructuring. This has to occur before the gradual transfer of powers to the municipal councils.⁶ According to this Decree, the process starts in the cities of Maputo, Beira, Quelimane, Nampula and Pemba and after three years a decision will have to be taken with regard to transfer of the systems to the respective city councils. This is the legal framework that will enable the privatization of the existing state water companies. Although there is a need to transfer the delivery of water to the private sector, there is the concern that irrespective of who will be in charge of it, that person/entity will be delivering a public good through a public service. This will be done through concession or management contracts.

This restructuring aims at:

- Supplying water in adequate terms to the needs of the consumers either in quality or in quantity;
- Increasing national coverage in water supply;
- Adopting tariffs that will reduce the imbalances and that recognise the social value of water and
- The progressive cost reduction through the use of rational and efficacious means.

In the relationship with consumers, this Decree establishes that there should be public consultation through the city councils in the process of determination of the big strategic options of implementation of the Framework for Delegated Management and development of public service and the right to protect consumer interests.

In the institutional framework, the Delegated Management has the following composition:

- The Ministers of Public Works and Housing, of Planning and Finance, and of State Administration;

⁶ Law 2/97, of February 18, 1997, approved the legal framework for the establishment of municipal councils.

- The National Directorate of Water;
- The Coordinating Forum of Delegated Management;
- The Investment and Assets Fund for Water Supply (FIPAG);
- The Regulatory Council for Water Supply (CRA);
- City councils, and
- Operator.

This Decree further gives us the composition of the Co-ordinating Forum as being:

- One representative from the Ministry of Public Works and Housing, who shall be the Chairman;
- One representative from the Ministry of Planning and Finance;
- One representative from the Ministry of State Administration;
- The Director of FIPAG;
- The Chairman of CRA; and
- One representative of each city council.

Representatives of consumer associations or of other local consumer organisations may be invited to the Coordinating Forum by decision of the respective city councils.

2.2.3 The Investment and Assets Fund for Water Supply (FIPAG)

FIPAG was established through Decree 73/98, of December 23, 1998. This Fund aims at managing the assets and the programme of public investment in the systems of water supply, through promotion of their development and economic sustainability and to follow the delegated management of the water supply systems. Provisionally FIPAG would be responsible for the management of water supply systems in situations where there is not yet management contracts or when exceptional situations require public intervention.

2.2.4 Regulatory Council for Water Supply (CRA)

CRA was established through Decree 74/98, of December 23, 1998. CRA aims at balancing the interests of water consumers and those of the operators by assuring quality of water service and the meeting of consumer interests and the economic sustainability of the water supply systems.

2.3 OTHER RELEVANT LEGISLATION

Other relevant legislation includes the international river basin treaties, and the Land and Environmental Legislation.

2.3.1 International River Basin Treaties

The policy may not be achievable if we don't look at international treaties, taking into account the geographic location of Mozambique as a downstream country. Mozambique can be considered a quite privileged country in terms of surface-water resources. The average annual run-off amounts to $213 \cdot 10^9 \text{ m}^3/\text{year}$, of which only $97 \cdot 10^9 \text{ m}^3/\text{year}$ originates from rainfall on Mozambican territory. The Zambeze contributes half of the

total run-off of which only 17% originates in Moçambique.⁷ Therefore, safeguards through regional basin agreements are necessary. In this respect, Moçambique adopted on 28 May, 1987, an Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambeze River System. Other signatories include Botswana, Tanzania, Zambia and Zimbabwe.⁸ The Parties agreed for non-navigation of the Zambeze river as one of the strategies for the sustainable use of the river waters. Moçambique is also negotiating water management with Zimbabwe and Swaziland. The agreement aims at setting rules for river management in order to avoid natural disasters.⁹

A regional protocol, still under discussion, regulates shared watercourses. This protocol includes all SADC (Southern African Development Community) Countries namely Angola, Botswana, Lesotho, Malawi, Moçambique, Namibia, South Africa, Swaziland and Zimbabwe. The Protocol was signed on August 28, 1995 by all countries excepting Angola. Moçambique signed the Protocol but has not yet ratified it. The Protocol entered into force in 1998 after 2/3 of the signatories had ratified it, i.e. after the 7th ratification (ratified by South Africa, Botswana, Lesotho, Swaziland, Malawi, Namibia and Zimbabwe). This protocol expresses the intention of the SADC member States in developing a close co-operation for the adequate use of shared watercourses. Moçambique signed the protocol with reservations, as the Protocol does not protect its national interests, namely:

- the problem of defining river basins/systems;
- the duty of not causing damage, and
- measures to avoid future conflicts.

Therefore amendments have been proposed to the text of the Protocol before Moçambique ratifies it.

2.3.2 Associated Land and Environmental Legislation

Water legislation is to be implemented in harmonization with other sectoral legislation. This section gives the statutory legal framework for land use and for the environmental protection.

Land Legislation

According to our Constitution, land ownership is vested in the State. Land use right is given to individuals and corporate bodies according to their social use. Land Legislation comprises the Land Law (Law 19/97, of October 1, 1997) and its Regulation approved through Decree 66/98, of December 8, 1998. This legislation replaces the 1979 Land Law and the 1987 Land Regulation. This law replacement aims at giving more security to land tenure to the Moçambican citizens and investors.

⁷ D.N.A., ed., *Explanatory Notes to the Hydrogeological Map of Moçambique Scale 1:1,000,000*, 9, Maputo, 1987.

⁸ Okidi, C., <<International Law and Water Scarcity in Africa>> in Brans, E. *et alii*, *The Scarcity of Water*, 175, (Kluwer, 1997).

⁹ Miguel, R., <<Moçambique negocea gestão de água com Zimbabwe>>, in *Domingo*, 12, (Maputo, 21/2/99).

In this sense, the law foresees the land use rights by local communities, what constitutes one of the great innovations introduced in the law. Land use right is acquired through occupation by individuals and local communities according to customary norms and practices that are not contrary to the Constitution. This means that those who occupy land have the land use right.

Another means of acquiring land use rights is through occupation by national individuals for a minimum of ten years. And the third means through which land use is acquired is through application submitted by individuals or corporate bodies according to law. Regarding the rights of the land users, the Regulation excludes the reserved areas and the protected areas. The reserved areas are established in the Forest and Wildlife Law, Mining Law, Environmental Law. The reserved areas aim at the undertaking of certain economic activities such as mining and oil exploration and environmental protection.

The rights comprise those of: defending against any disturbance by strangers and to have access to one's piece of land and also to water of common use through neighbouring tenancies. This means that if someone wants to fetch water and if from the land one occupies there is no way to reach water, the occupiers of the neighbouring land will have to give way.

The Environmental Legislation

The Environmental Legislation comprises the Environmental Law (Law 21/97, of October 1) and its Regulation approved through Decree 76/98, of December 29, 1998. The Environmental Law introduces for the first time in the country, the commitment for the undertaking of environmental impact assessment, public hearing requirement and imposition of civil and criminal liability for environmental pollution. The law sets not only the legal framework but also the institutional framework for the articulation and implementation of the environmental policy and law.

With the approval of the Environmental Law, environmental management is under a consultative body, *Conselho Nacional de Desenvolvimento Sustentável*, which will be in charge of co-ordinating and integrating environmental management activities in the economic development of the country. This body reports to the Government. At the local level, local agencies will be established for the co-ordination and decentralisation of environmental matters as a means to allow the good use of local initiatives and public participation. The enactment of this law involves a great commitment to the Government for the environmental protection. It also requires good co-ordination among different institutions.

Summing up, land and environmental legislation contain important provisions associated to water rights and its protection. We can see how water and land, two important natural resources, are related and the protection of the Environmental Law attempts to give to the use of these resources.

2.4 CURRENT STATUS AND PRACTICE

As mentioned before, one of the short term objectives stated in the National Water Policy is to meet the basic needs of the people in terms of water and sanitation. After four years since that policy was approved, this short term objective has not yet been achieved. In order to achieve this objective, large investments will be needed in the areas of the lowest

coverage. Although the objective of the actual tariff structure is that of making water available at a low cost, the result has been the reverse. The most vulnerable strata of the population specially in the peri-urban areas pay more than the other strata with better conditions due to the fact that water supply, through hand pumps and water sources, is controlled by individuals who impose arbitrary prices for water. Beneficiaries are willing to pay for conventional water supply as long as it is regular, secure and of a satisfactory level. In this respect, the main investment will be channelled for the conservation of the existing infrastructures and reduction of loss, as well as for the extension of water supply to the peri-urban areas.

Regarding implementation of water legislation, the lack of additional regulation giving effect to the provisions of the Water Law suspends efficacy of this law. The implementation of the regional water bodies does not follow the same legal procedure as in one case (ARA – Sul) we have the immediate establishment of ARA and in the other case (ARA – Centro) its entry into force starts with the establishment of a Coordinating Unit. This raises the question of knowing which would be the normal procedure for the implementation of ARAs. The Water Law gives powers to the regional water bodies to license, inspect and control the sustainable use of water basins and this means that where ARA is not yet operating, these tasks are not being accomplished. Regarding the institutions established in December 1998 (FIPAG and CRA), it is still very early to talk about any current practice as they are still in the process of their implementation.

At the regional level, Moçambique is still negotiating protocols on the use and management of shared watercourses.

3. NATURE AND STATUS OF CUSTOMARY WATER RIGHTS

Moçambique is a multicultural country with values and traditions that vary from province to province and even within the provinces. This makes the task of talking about the nature and status of customary water rights very difficult. A complete report would require an extensive field work to be conducted by a multidisciplinary group (sociologists, anthropologists, and lawyers). In addition to that, it is important to mention that, soon after independence, Moçambique faced the dismantling of the traditional powers, with the argument that they had been in favour of the colonial power before independence. This affected all the traditional structure and social values. In addition to that, the displacement of the population during the civil war makes the task much more difficult. However, there are attempts to recognise local practices and customs and the recently enacted legislation gives evidence of such effort. Customary law distinguished between private and community ownership. Water was considered a community resource and everybody could freely use it.¹⁰

¹⁰ Cota, G., *Mitologia e Direito Consuetudinário dos Indígenas de Moçambique*, 245-6, (Imprensa Nacional de Moçambique, Lourenço Marques, 1944).

4. NATURE AND STATUS OF WATER SUPPLY AND SANITATION PROVISION

4.1 WATER SUPPLY FOR DOMESTIC PURPOSES

Water supply for domestic purposes, in the urban areas, is guaranteed by the State through state owned companies, Águas de Maputo, EE. in the case of Maputo, Águas da Beira EE., in the case of Beira and so on. These companies are in the process of being restructured within the Framework of Delegated Management mentioned earlier. In the rural areas, water supply is guaranteed through the operation of small water systems under the supervision of the Department of Rural Water. PRONAR - Programa de Água Rural - was established in 1981 to look at issues affecting the supply of water to rural areas. It has been involved in activities of water management and regulation. Provincial Workshop of Rural Water (EPAR - *Estaleiros Provinciais de Água Rural*) has been established in all the provinces to support water systems. The Programme of Community Education (PEC – *Programa de Educação Comunitária*) operates within EPAR giving training. After the approval of the National Water Policy, the way that PRONAR was viewed changed. Now, the role of PRONAR - institutionalised Department of Rural Water (DAR) - is more on the regulation side and control for the implementation of the national policies affecting water supply to rural areas. However, many investments in the development of infrastructures for the extension of water coverage will still be the responsibility of the State.

According to DAR, a rural water source is estimated to serve 500 people in a radius of 500 metre. 35% of the population in rural areas and 30% in small towns receive water through water pumps. In the villages, where water systems exist, more than 50% of the community are organised to operate and maintain their own sources. So maintenance, management and operation are responsibility of the community. In the villages, the local authorities manage the water systems. The involvement of the private sector is envisaged.

According to DAR, the population is ready to pay for an adequate supply of potable water. Some people are already paying part of the costs of operation and maintenance of wells and hand pumps and contributing to the costs of construction like work and accommodation of the construction teams. In the rural areas and due to the negative impact of the civil war, many water systems have been destroyed. Presently the rehabilitation of these systems has the support of different donor agencies and organisations namely UNICEF, UNHCR, INDER, WaterAid, Helvetas, World Relief and the Red Cross. The support received during the last ten years, due to problems of drought and war, enabled the rehabilitation of water systems and a bigger increase of national coverage in water.

UNICEF, a UN agency contacted during this study, is involved in water and sanitation programmes since it was established in Moçambique. Construction component of water supply and sanitation is not Unicef's main subject of activity but they have been called to intervene in this area due to a specific situation of war and drought that affected their target group - children. Having started working in two areas - water and sanitation - the main objectives were to improve access and use of potable water and sanitation facilities especially in rural areas. Although water programmes exist since the beginning, Unicef was more strongly involved during the last ten years. The support covers all the provinces and consists of the purchase and provision of hand pumps for the provinces of Inhambane,

Sofala, Manica, Tete, Nampula, Zambézia and Cabo Delgado. Besides hand pumps, financial support is given for the opening of boreholes and the construction of watersources. The support includes community training by PEC on the watersource maintenance, sanitation and hygiene promotion.

UNICEF projects are always undertaken in coordination with DAR as the main partner.

With the decentralisation process, annual plans started being discussed directly with the Provincial Directorates. This process is taking place in relation to Nampula and Zambézia and enables the involvement of local contractors. The new country programme signed between Unicef and the Government of Moçambique also involves city councils as their counterparts. In this first phase, the councils identified by the Government are those of Maputo, Beira, Quelimane and Nampula. This is due to the incidence of cholera and other diseases in these urban centres. These four councils are in the process of preparing their 3-year plan. Another objective sought for the support of the councils is that of developing civic education to raise awareness for the need to change the behaviour of the people, taking into account the many cases of cholera that have been registered.

The new three year country programme started in 1999 includes water, sanitation and hygiene promotion.

Within Unicef, there is coordination with other programmes: health, education, and children's rights. There is also coordination with institutions not related to water but that are affected by water programmes. Among donor agencies, there is articulation through a committee and holding of monthly meetings with the Government.

The Institute for Rural Development (INDER - *Instituto de Desenvolvimento Rural*), established in 1990, was appointed to implement the rural development policy.¹¹ For the purposes of this policy, the actions for the promotion of rural development will focus on the supply to the communities of the necessary tools for the participation of the community in the management of local resources and the development of mechanisms for redistribution of rent. In this respect, INDER is supporting water projects in Sofala, Zambézia and Niassa within multisectoral projects. The support in the water component consists of:

- opening of wells and
- rehabilitation of the water systems in the villages of Mocuba, Guruè and Lioma (province of Zambézia).

These activities are funded by the World Bank and implemented by the Department of Rural Water.

WaterAid operates in the northern province of Niassa as the biggest funding organisation of water projects in that province. Other financing organisations operating in this province include the German Agrarian Action, *Médicins sans Frontière*, *Fundação para o Desenvolvimento da Comunidade (Mozambican NGO)*, the Irish Embassy, OXFAM

¹¹ INDER was established through Presidential Decree 36/90, of December 27, 1990. Rural Development Policy was approved through Government Resolution 3/98, of February 24, 1998.

Belgique and INDER. This province, of 803.000 inhabitants, is well endowed with water sources.¹² The provincial coverage to rural areas is of 30%.

This province is not yet integrated in any ARA (regional water body). In terms of water management nothing has been done yet. The intersectoral co-ordination is almost inexistent.

In this province, there is a programme for Agrarian Development undertaken in coordination with INDER and financially supported by the International Fund for Agricultural Development (IFAD). Within this programme, two pumps have been planned for two districts - Lichinga and Sanga. The concern with this project is how to control water use for irrigation and how the tariff policy impacts on this project, when there is no ARA to impose tariffs on water use and to control water use.

According to an extensionist from Wateraid, in the areas where there is no improved water source, people use water from the rivers and in other areas, from traditional wells, made of local material. Others use water springs as main water sources. The traditional wells are cleaned regularly. There is civic education undertaken by Wateraid for the use of potable water for domestic use. This is done before, during and after the construction of a watersource. Extensionists perform the following tasks:

- contacting the village authorities to inform them about the plan to build a watersource;
- setting a meeting with all the village members to speak about the importance of water, and
- visiting the houses to see how people maintain water and the sanitation conditions. In case of lack of sanitation care, civic education is prepared for such purpose.

From the communities, four people (two men and two women) are chosen for the maintenance of the watersource. The water pump is always fixed in the presence of the population. Then the water pump is handed over to the responsibility of the community. In the building of a water source, traditional values are followed. Women are not allowed to dig a well.

According to the extensionist interviewed, in certain areas, communities are very well organised, thus contributing for the good maintenance of the watersources. In the areas of internal conflicts within the community (political conflicts or when the leader is not accepted by the members of the community), the maintenance of watersources is very difficult.

There are criteria for the provision of a water pump:

- if the population is willing to have it;
- if the population is interested in maintaining it; and
- if there are at least 500 people living near the pump.

Within this project, the content of community education covers:

¹² INE, p.23.

- how to take care of the improved water source;
- good water quality maintenance;
- raising of awareness about the danger in the consumption of water directly from the river; and
- improvement of sanitation conditions.

At the same time, the health sector has a programme to combat cholera in this province that runs civic education given by agencies responsible for water.

The situation in other provinces cannot be compared to that of Niassa as there are provinces with drought such as Gaza, Inhambane and Tete.

Helvetas, another organisation contacted in Maputo, operates in the province of Cabo Delgado since 1979. That project is fully financed by the Swiss Development Cooperation. Their target group are rural people and their support has been through financing direct rehabilitation and construction of water systems, digging of wells and institutional support, through technical assistance to DAR, and training of the communities. In this water programme, sanitation promotion and hygiene education are not included and will be part of future programmes. Regarding city councils, Helvetas intervenes whenever an epidemic occurs, as was the case with cholera in the beginning of this year.

After 20 years of working in the Cabo Delgado Province in water projects and guided by the National Water Policy, Helvetas fully supports that policy in the sense that water supply should be guided by the demand and supply principle, taking into account that hand pumps are operational in 66% of the province. Notwithstanding the availability of hand pumps in certain rural areas, managed by water committees, some people rather use the traditional wells, due to very different reasons: proximity, fear from water contamination and/or poisoning and bad neighbourhood relationships. Helvetas is now implementing a 4-year programme, which comprises capacity building of the Department of Water in order that it can operate without external support and to enable decentralisation and community management of water systems. In this respect, the local entrepreneurship is being trained and the tendency is that of having less and less activities in the province. The main objective of the current 4-year programme is to prepare the water sector for self sustainability . In this respect, it is envisaged to establish autonomy of PEC from EPAR and to build local entrepreneurship capacities. For such purpose there is the idea of establishing, in the future, a construction fund to support local entrepreneurship. The fund would receive contributions from the State, the Swiss Development Cooperation and, other interested donors. Another idea for future cooperation is through involvement in integrated projects with other organisations namely from the Netherlands who are assisting water systems in the Nampula province and to disseminate what has been made during the last 20years. Water coverage in the province is estimated at 50%. Helvetas articulates with DNA/DAR at national level and DPOPH/DA and PEC at the provincial level.

Besides the programme implemented by Helvetas in Cabo Delgado, the Swiss Development Cooperation has got other water projects at the national level. They include capacity building and training.

All these efforts, through large emergency investments and increased production capacity, have resulted in the increase of national coverage for rural water from 12% in 1986 to around 35% by 1997.

One of the organisations contacted during this study is ORAM - Organização Rural de Ajuda Mútua (Rural Organisation of Mutual Aid). ORAM started working in 1992 with the main objective of securing land to the rural people through the legalisation of associations. ORAM is present in 9 provinces out of the eleven provinces of Moçambique. They work with 227 associations with a total of 14.294 members from which 8.853 are women. As ORAM has already started working in land issues, they would like to see their programs include water issues to rural people. Regarding the restrictions on land use, ORAM has some practical knowledge of watercourse deviations to solve drought problems and the many conflicts involving the search for fertile land.

Water sector is now undertaking a profound structuring in order to accomplish its objectives defined by the Government in relation to the improvement of water availability and other related services and adapting the existing structures to the new political and economic situations of the country. By 2002, it is foreseen an increase to 70% of the urban population with potable water that will result in a consumption of 56 Mm³ a year.

4.2 WATER SUPPLY FOR OTHER RURAL LIVELIHOOD PURPOSES

Water supply for other rural Livelihood Purposes would depend on the extent of water use. 75% of the population lives in the rural areas depending on the land for living. Small scale irrigation and drinking of cattle would fall under common use of water, under the Water Law, and would be free. Large scale irrigation would fall under private use of water and would be subject to licensing. However, respective regulation has not yet been approved. This leads to a situation of disorganisation in terms of use of water that would be subject to licensing by ARAs with negative impacts to the environment.

4.3 SANITATION

Sanitation measures fall under the Ministries of Public Works and Housing and of Health. The National Programme of Low Cost Sanitation (PNSBC - *Programa Nacional de Saneamento a Baixo Custo*), made up of two components dealing with rural and peri-urban sanitation, started in 1976, without a formal structure, as a campaign to promote health, through the use of latrines. Two years later, all this rural and peri-urban sanitation system collapsed due to the effects of the rainy seasons. This urged the establishment of a programme for the research of appropriate technologies. In 1979, PNSBC was established as a coordinating unit for the building of latrines, with the support of the World Health Organisation, United Nations Development Programme (UNDP) and International Research Centre of Canada. This programme was under the National Institute of Physical Planning (INPF - *Instituto Nacional de Planeamento Físico*) until 1990, when INDER was established.¹³ As, at that time, the Chairman of INDER was simultaneously the Director of the INPF, the PNSBC was partially under INDER and under INPF. Overtime, PNSBC has been improving technologies in order to enable the transition from the intermediate technologies to conventional methods of sanitation. This is the case of the peri-urban area

¹³ See note 11.

of Beira (second largest town of the country) where mostly intermediate technology is used.

The costs of the materials and of the personnel for building the latrines is subsidised by the Government. Within the programme of rural sanitation, the Government is subsidising a group of vulnerable people identified by the National Institute of Social Action (INAS - *Instituto Nacional de Acção Social*), representing around 30% of the beneficiaries of this programme of rural and peri-urban sanitation. In order to complement these programmes, PNSBC has also developed a group of civic education for the promotion of hygiene and health in all the provinces.

Within the Strategic Plan financed by the UNDP for the period 1999 - 2003, sanitation programme includes the adoption of the principle of decentralisation through the involvement of city and district councils for the activities in the peri-urban areas, and Provincial Directorates of Public Works and Housing in coordination with the district administrations for those in the rural areas. This includes water supply, sanitation and hygiene. In terms of civic education, messages will be prepared together with the health sector and the possibility of having a central and provincial coordinating bodies is being studied. PNSBC feels that the existing intersectoral coordination for water through CNA has no mandate for dealing with rural water and sanitation, as it is more involved in water use management for industrial purposes and shared watercourses.

The PNSBC is in the process of becoming institutionalised in the Water Department of the Ministry of Public Works and Housing. Its transfer from the National Institute for Physical Planning is a process scheduled to take place as part of the Government's effort to implement the National Water Policy. In the same framework as the rural water supply, low cost sanitation programme management is to be decentralised to the Provincial Directorates of Public Works and Housing, to the city and district councils, to privates and to NGOs, private operators, etc. Its implementation strategy promotes the establishment of a sustainable hygiene education capacity that will provide the opportunity for 75% to 100% of rural and peri-urban families to adopt hygiene practices by 2010.

All the coordinated efforts towards rural and peri-urban sanitation allows us to have a rural sanitation coverage estimated at 11% and a peri-urban sanitation coverage estimated at 50%, as compared to the past, when the coverage was meaningless.

This calls for the need to coordinate the activities of different institutions aiming the same goals.

5. IMPACT OF WATER LAW AND WATER RIGHTS ON WATER SUPPLY AND SANITATION PROVISION/ACCESS

5.1 ENABLING CONDITIONS

The Legal Framework for water attempts to guarantee access of water to the poor. This is reiterated in the Water Policy, Water Tariff Policy and the Water Law. Other associated policies and legislation are duly harmonised with water legislation in terms of sustainable development, decentralisation and rural development. In addition to that, and as far as institutional framework is concerned, legislation has already established the authorities

that would be responsible for water management, on the one side, and schemes for funding support to the rural water, on the other. Intersectoral coordination exists for rural development, for the implementation of water policy and water management and for decentralisation.

5.2 CONSTRAINTS

Looking at the water coverage, around 35%, one can see that it is still very low, although the legal framework provides for access to water by rural population taking into account its social value. Although the Water Policy exists, it is not sufficiently disseminated so that the population can revindicate their rights.

On the other hand, the legal framework for water rights is not yet complete, as the regulation for the private use of water is not yet approved. This leads to free and uncontrolled extraction of surface and underground water by water suppliers and factories. This also leads to uncontrolled discharges of used water without a due regard to environmental protection and the principle of sustainable development.

Looking at the regional water management authorities established by law, ARA-Sul is the only one in operation, yet without a complete legal framework for water licensing. This shows the willingness to have regional water management without pondering on the necessary human and financial results to implement it. As to intersectoral coordination, this is still very weak with some coordination entities (*e.g. Conselho Nacional de Desenvolvimento Sustentável*) not yet operating. The other constraint is that the process of decentralisation is still starting what requires necessary human and financial resources at the local level. In this respect, the intersectoral coordination, where it exists, seems to work at the central level and not at the local level. This may cause some problems at the local level if the policies are not duly implemented, particularly the tariff policy, where the social aspect should always prevail.

With regard to rural community, there is much legislation that is not disseminated as most of community education is towards equipment maintenance and health care.

The other factors to take into consideration are the negative impacts that privatisation may raise in the determination of the tariff of water the peri-urban population will have to pay. When the water tariffs are very high and the peri-urban people are not prepared to pay, they normally damage the water systems that cross peri-urban areas. This results in much bigger losses to the water supplier that can be avoided by introducing different tariffs for different uses and groups of consumers.

At the international level, Moçambique, a downstream country, has not yet succeeded negotiating favourable conditions of regular access to water, in order to avoid disasters resulting from droughts and floods. At the national level there is no in-built capacity to store water coming from neighbouring countries and from rain. Besides the loss of water, there is a negative impact on the quality of soil that becomes more and more impoverished.

Although the policies stress the need for education, the right to water as a fundamental right is not yet a reality. On the other hand, the existing training programs are very fragmented.

6. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the water policy is being gradually implemented and this is reflected by the existing legal framework. It is also reflected by the regulatory role the State starts playing in water issues with the beginning of the decentralisation of water management. Water supply and sanitation coverage in the rural and peri-urban areas had risen in the last years due to investments in the sector and to the end of the civil war. Regarding water tariff policy, it was recently approved (December 1998) and therefore it is not yet being fully implemented.

As mentioned in the introduction, the illiteracy is very high and this hinders the information on legal rights and, in particular, in water rights. The only legal right so far widely disseminated is on the Land Legislation through “*Campanha Terra*”, a nationwide land campaign involving 270 NGO’s. Education for the conservation of water and maintenance of the water systems is made separately by water agencies and health authorities respectively. In this respect, inter-sectoral coordination is still very weak. At the international level, the main protocols for the use of shared watercourses are not yet in force, thus leaving Moçambique subject to uncertainties as to availability of this precious resource in terms of quality and quantity.

Taking into account that the legal framework for water management is not yet complete, measures should be adopted in order that the additional regulations necessary for the licensing of the private use of water and regional water management, be approved soon. Although the legal framework for water rights and supply is not yet complete, there is the need for the dissemination of that so far enacted. As a way to guarantee water rights in the rural and peri-urban areas, education on water rights and access to water should be addressed to rural population. Such education should take place in conjunction with the education on land legislation taking into account previous experience and how water rights are linked to land use rights. Another alternative would be of combining the training on water rights with the existing training programmes undertaken under PEC. Water users in the rural areas are able to operate and maintain wells equipped with hand pumps. However, the maintenance teams need to be well trained and supported by other users. Activities of community participation need to be reinforced in order to guarantee an effective maintenance of the water sources. In some parts of the country, as are the cases of Cabo Delgado and Niassa the introduction of improved water systems did not alter the practices of using water from the traditional wells. In order that people accept peacefully the improved water systems, there is a need of education for change of mentality towards the improved water systems, as a way to improve social health, by avoiding waterborne diseases. Regarding international watercourse, it is urgent that Moçambique negotiate favourable agreements with the upstream countries and whenever possible take the lead on those negotiations as the last recipient of the many still existing rivers.

Taking into account that this report does not cover thoroughly the issue on customary water rights a separate study is recommended that will address this particular topic.

Last but not least the Government needs urgently to establish the institutional framework for the regional management of the river basins and an effective intersectoral coordination necessary in order to give effect to the provisions stated in the existing legislation and guarantee water rights to the different users.

APPENDICES

A : Bibliography

Mocambican Legislation

1. Constitution of Moçambique, revised in 1990
2. Law 16/91, of August 3, 1991 - Water Law
3. Law 2/97, of February 18, 1997, approved the legal framework for the establishment of municipal councils.
4. Law 19/97, of October 1, 1998 - Land Law
5. Law 20/98, of October 1, 1998 - Environmental Law
6. Presidential Decree 36/90, of December 27, 1990, established INDER
7. Parliamentary Resolution 4/95, of May 9, 1995, approved the Government Five-Year Programme
8. Decree 25/91, of November 14, 1991, determined the entry into force of the CNA
9. Government Resolution 7/95, of August 8, 1995, approved the National Water Policy
10. Decree 8/96, of April 2, 1996, altered the composition of CNA
11. Government Resolution 3/94, of February 24, 1998, approved the Rural Development Policy
12. Decree 66/98, of December 8, 1998, approved the Regulation of the Land Law
13. Decree 60/98 of December 23, 1998, approved the Water Tariff Policy (not yet published)
14. Decree 72/98, of December 23, 1998, approved the Legal Framework for Water Management
15. Decree 73/98, of December 23, 1998, established FIPAG - *Fundo de Investimento e Património do Abastecimento de Água* (Investment Fund for Water Supply)
16. Decree 74/98, of December 23, 1998, established CRA - *Conselho de Regulação de Abastecimento de Água* (National Regulation of Water Supply)
17. Decree 76/98, of December 29, 1998, approved the Environmental Impact Assessment Regulation
18. Ministerial Diploma 134/93, of November 17, 1993, approved the Statutes of South Regional Water Management Authority (ARA Sul - *Administração Regional de Águas Sul*)
19. Ministerial Diploma 163/96, of December 25, 1996, approved the Bylaw of ARA Sul - *Administração Regional de Águas Sul* (Regional Water Management - South)

International Treaties

1. SADC Regional Protocol, of August, 28, 1995
2. Agreement on Action Plan for Environmentally Sound Management of the Common Zambeze River System, of May 28, 1987

Books and other Documents

1. Cota, G., Mitologia e Direito Consuetudinário dos Indígenas de Moçambique, (Imprensa Nacional de Moçambique, Lourenço Marques, 1944).
2. D.N.A., ed., Explanatory Notes to the Hydrogeological Map of Moçambique Scale 1:1,000,000 (Maputo, 1987).

3. Okidi, C., <<International Law and Water Scarcity in Africa>> in Brans, E. *et ali*, The Scarcity of Water (Kluwer, 1997).
4. Instituto Nacional de Estatística (INE), ed., Statistical Yearbook, (Maputo, 1997).
5. Miguel, R., <<Moçambique negocia gestão de água com Zimbabwe>>, in Domingo (Maputo, 21/2/99).

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