

CENTRE ON
HOUSING RIGHTS
AND EVICTIONS



**Case Studies on Efforts to Implement the Right to
Water and Sanitation in Urban Areas:
Brazil, Kenya, Sri Lanka and South Africa**

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This working paper is now under review by policy makers and civil society from the relevant country and by UN-HABITAT. It will be finalised based on comments. Please do not cite or attribute to this working paper.

Introduction

The status of access to water and sanitation as a right adds weight to achieving access for all. It brings attention to government obligations to ensure this access and supports international as well as national efforts to protect this access. Emphasising water as a right also strengthens the position of communities in relation to state authorities. With the appropriate education about their rights, communities are empowered to demand the needed water and sanitation services from their national and local governments. The right to water and sanitation helps to safeguard the rights of all groups, in particular poor and other vulnerable or marginalised groups. This approach also ensures that the satisfaction of basic needs take priority in economic and political decisions over the use of available water resources.

As those working at the community level know, realising the right to water and sanitation it is not simply a matter of writing the appropriate laws and policies. It is also necessary to implement such laws and policies effectively. Indeed, it is no help to those in need of safe and sufficient water and adequate sanitation, if their government formally recognises the right to water and sanitation and then does nothing to realise this right. This paper documents and evaluates attempts to implement the right to water and sanitation in urban water and sanitation services in Brazil, Kenya, South Africa and Sri Lanka. Each country case study comprises a description of national and municipal legislation, policies and institutions that have been put in place to implement the right to water and sanitation in urban areas; and an evaluation of the results of such initiatives, together with lessons learnt.

The studies are based on a combination of field missions, interviews with practitioners and the review of secondary materials and, in some cases, a workshop involving practitioners. Each study evaluates progress guided by key aspects of the human right to water and sanitation as developed in the *Manual on the Right to Water and Sanitation*,¹ which are:

- Non-discrimination and attention to vulnerable and marginalised groups
- Participation and access to information
- Water availability and allocation
- Water quality and hygiene
- Physical accessibility of water and sanitation
- Affordability of water and sanitation

¹ COHRE, AAAS, UN-HABITAT and SDC, *Manual on the Right to Water and Sanitation* (2007), www.cohre.org/manualrtws

CASE STUDY A: BRAZIL

Introduction

In recent years, Brazil has taken significant steps to fulfil its international obligations concerning water and sanitation. Many laws have been introduced, in consistence with the 1988 Constitution, most of which were developed with the substantial support of civil society actors. The Law on Water Resources, the Law on Environmental Sanitation, the Presidential Decree on water quality and the City Statute are all good examples of participative decision-making. The result of wide deliberative processes, these laws respond to the priorities of a wide range of stakeholders. Together, they set clear responsibilities and powers; assure monitoring and public participation in the development of the plans of action; establish regulatory agencies; assure access to information; and create legal and policy tools for their implementation.

The examples in this study represent the different efforts that have been undertaken to implement the legal framework described. In relation to the non-discrimination and attention to vulnerable and marginalised groups, the case study refers to the extension to water and sanitation systems in the Guarulhos informal settlements, despite of their tenure status.

The experience of Porto Alegre's Participatory Budgeting demonstrates how access to information and public participation can improve the levels of access to water and sanitation, especially to those living in deprived areas. There will be also presented the cross-subsidies policy applied in the city, which assures the affordability of the services after their implementation.

The experience of the National System of Water Resources Management in controlling and charging for water use and pollution, through public participation in decision-making is reviewed. Also considered with regard to water availability and allocation is the experience of Sao Paulo's State water company, SAPESBP in promoting the sustainable use of water.

The legal framework regarding water quality and hygiene is also reviewed and is shown to set strict and clear obligations for the responsible institutions. It is mentioned the initiative of the National Information System on Sanitation in the monitoring of water quality. The experience of Monte Santo City in guaranteeing water supply through a judicial decision is reviewed with regard to physical accessibility to safe and sufficient water.

1. Country background

Of the 46 million urban households in Brazil, on average 62% have access to all basic services (that is, safe and sufficient water, sanitary sewage collection and regular waste collection). However, there are gross inequalities between regions; the two extremes being in the North - with 10.5% coverage and the Southeast - with 84% coverage. The main deficiency is in sanitary sewage collection, which amounts to only 67% of urban households, while 93% have access to piped water supply. In the states of the North, only 12.6% of households have access to sanitary sewage collection and 68% have access to piped water supply². A total of 17 million urban household are deprived of adequate housing standards, which often includes the lack of access to

² From the BRAZILIAN INSTITUTE FOR GEOGRAPHY AND STATISTICS – IBGE. National Household Sample Survey 2006. http://ftp.ibge.gov.br/Indicadores_Sociais/Sintese_de_Indicadores_Sociais_2006/Tabelas/

water and sanitation³. The consequences of the situation are evident: 65% of child hospital admissions are due to inadequate of water and sanitation services⁴.

The previous law on water and sanitation services in Brazil was the National Plan on Sanitation (PLANASA), created in the 1970s by the dictatorial government. The plan facilitated the transference of services from municipalities to states, giving the Federal Government more control over the sector and diminishing local powers. As a result, 71% of municipalities have their water and sanitation provided by state-owned companies, 28% directly by the municipalities, and less than 1% by private companies⁵.

With the fall of the dictatorship in 1986, the successive governments did not continue to apply the PLANASA. The gap left in the regulation of water and sanitation services resulted in the diminishing of public participation in the sector. Only in 2007, after a process of public discussions, was the Law on Environmental Sanitation (Law 11 445) approved. The National Constitution, passed in 1988 as a result of the democratisation process, had settled the basis for this Law. The Constitution guarantees the immediate applicability of social rights, such as the right to health, to housing and to work. It also recognises the right of every citizen to a healthy environment, including the protection of water resources.

The framework enshrined in Law 11 445 offers a rights-based approach to “basic sanitation”⁶, defined in this case as the supply of adequate drinking water, sanitary sewage collection, urban garbage collection, solid waste management and urban rainwater drainage. Some of the principles are: universal access to services; transparency; public health and environmental preservation; public participation; safety, quality and regularity of services; the use of cross-subsidies policies; the development of national and local plans of action; and the creation of regulatory bodies when services are provided by third-parties.

The Law on Water Resources (Law 9433), which creates the National System of Water Resources Management (SINGREH) sets out the National Policy for Water Resources. The Law recognises water as a public good, as well as a limited natural resource with economic value; it gives priority to human consumption in cases of water scarcity, assures the participation of multiple stakeholders in water resources management and seeks to balance current water availability with the needs of future generations. Based on this law, the National Water Resources Plan was approved in 2006, a product of a participative consultation process with several sectors of society and experts.

2. Adoption of and efforts to implement the right

2.1 Institutional framework

It is established in the Constitution that the National Congress has the power to set the general guidelines for the urban development, including housing and basic sanitation. All levels of

³ . BRAZIL, Second Official Inform presented before the Committee on Economic, Social and Cultural Rights, 2006, para. 366.

⁴ MINISTRY OF ENVIRONMENT. *Executive Synthesis of the National Water Resources Plan*. Brasilia, 2006, p. 43. http://pnrh.cnrh-srh.gov.br/temp/docs/executive_synthesis_NWRP_IN3.zip (English version)

⁵ COSTA, Silvério da. Water supply and sanitation services overview in Brazil. In: ASSEMAE -NATIONAL ASSOCIATION OF MUNICIPAL SERVICES OF WATER AND SANITATION. *Successful experiences in municipal water and sanitation services from Brazil*, June 2006. http://www.tni.org/detail_pub.phtml?&page=books_brazilwater&menu=05k

⁶ See section 2.1 regarding the Secretariat of Basic Sanitation.

government (national, regional and local) are responsible for protecting the environment, promoting programs on housing and basic sanitation, fighting the causes of poverty and marginalisation, and promoting social inclusion of those that have been historically excluded. The municipalities are responsible for organising and providing local public services, such as water and sanitation, either directly or through concession, and for developing the local plan of action and creating regulatory bodies. At the time of writing, the Supreme Court is about to decide a case in which it will evaluate the possibility of state government control of sanitation services.

The responsible federal government body is the Secretariat of Basic Sanitation, part of the Ministry of Cities. It is responsible for allocating federal resources, giving technical support to municipalities, and proposing and following the debates on relevant norms and plans of action. It must develop the National Plan on Basic Sanitation (PNSB), based on the guidelines of Law 11445 and subject to public consultation. For this purpose, the Ministry of Cities must respect decisions of the Council of the Cities (ConCidades), a deliberative and consultative body, in which civil society directly votes on the priorities for urban policies, plans of action and proposals of legislation regarding housing, basic sanitation and urban transportation.

There are also collegiate bodies, with consultative character, in the municipalities, states or Federal District to facilitate public participation in decision-making on sanitation services. These must be composed of governmental bodies, providers, users, technical entities, civil society and consumer organisations.

Water resources management is under the responsibility of the Ministry of Environment, through the Secretariat of Water Resources. The Ministry is in charge of proposing the National Policy on Water Resources and for monitoring its implementation, as well as coordinating the initiatives related to river basins and groundwater. The National System of Water Resources Management (SINGREH), created by Law 9433/97, contains other bodies, such as the National Council of Water Resources, the National Water Agency (ANA), river basin committees and local water agencies.

2.2 Non-discrimination and attention to vulnerable and marginalised groups

The prohibition of any form of discrimination is enshrined in the Brazilian Constitution, together with the objectives of eradicating poverty and marginalisation and reducing social and regional inequalities.

Law 11 445 establishes that the National Policy on Basic Sanitation (PNSB) must prioritise actions promoting social and territorial equity in access to basic sanitation and the improvement of living conditions and public health. The PNSB must aim for the reduction of social inequalities, increased employment and income generation and social inclusion. Among other things, it must also facilitate the implementation and expansion of basic sanitation services to areas occupied by low-income populations, the provision of adequately salubrious conditions for indigenous peoples and other traditional populations while respecting their specific cultural characteristics.

Guarulhos, the second most populated city in the State of Sao Paulo, suffered from water shortages, since it is situated in a high altitude marginal area of the water basin. In 2001, the interruption of piped water delivery was common in many neighbourhoods of the city. The most affected by the shortage were those living in deprived conditions, especially those living in one of hundreds of slums around the city, numbering almost 45 000 families. In many slums, there were distribution networks but no water being supplied. The improvement of the water supply system

was combined with a special focus on the less well-off families. For this purpose, the SAAE (Autonomous Service of Water and Sewerage) created a Division of Sanitation in slums, which has enabled the identification and meeting of the main necessities in deprived areas of the city, independently of people's tenure status. The Division works in a participatory manner, presenting the plans of action to be discussed among dwellers and implementing the works with their support. The requirements for connections can be performed in loco, so the individuals do not need to travel to an office to make the request. As a result, from 2001 to 2006, SAAE has connected 7100 households to the water supply and 4500 households to sanitation services. In the beneficiary communities, piped water supply reaches 87%, while in the communities that have not yet benefited, there is only 63% connectivity⁷.

2.3 Participation and access to information

The approval of Law 11 445 was itself a process of public participation, involving civil society organisations, government agencies and experts. The bill of Law 11 445 was finalised at the first Conference of the Cities in October 2003; a national process of debates including conferences in the municipalities and states. The legal basis for this process is contained in the City Statute (Law 10 257), which considers local and national conferences as tools for achieving the democratic administration of the cities. In 2003, the consultation process involved 320 000 citizens and 3457 conferences. Subsequently, an inter-ministerial working group redacted the final law based on the Conference's proposals, and it was approved by the Council of the Cities, the representative body of the conferences system. It was later submitted to public hearings, in which two thousand citizens participated and more than 200 suggestions were made. The draft law was also reviewed by legal academics.

This process strengthened the dialogue and relations among different sectors of society. As a result, Law 11 445 takes into consideration the key concerns of many stakeholders, and sets the foundations for the implementation of an inclusive basic sanitation policy in the country. It also facilitates the participatory process in the development of a National Basic Sanitation Plan and local plans, with wide public consultation.

The Law establishes that the State must provide all necessary information concerning proposals for the plans (national and local), as well as the studies on which they are based. Also, it creates the National Information System on Sanitation (SNIS), which is administered by the Secretariat of Environmental Sanitation and contains information on the extent and quality of water and sanitation services over the country⁸.

Furthermore, Law 9 433 also creates opportunities for participation in the management of water resources. The National Council of Water Resources (CNH) is comprised of representatives of government, the states' councils, users of water resources and civil society organisations, and establishes standards for the use of water resources and associated charges. The basin committees are responsible for approving the water resources plan for the basin and monitoring its execution, establishing the mechanisms for the charging of water resources use and suggesting the amount to be charged. They are composed of representatives of government, water users, civil society organisations and, where there are indigenous peoples interests affected, the National Foundation of the Indian (FUNAI) and the indigenous communities.

⁷ SAAE Guaruhos: A success story. In: ASSEMAE – NATIONAL ASSOCIATION OF MUNICIPAL SERVICES OF WATER AND SANITATION. *Successful experiences in municipal public water and sanitation services from Brazil*. June 2006. <http://www.tni.org/docs/200701251804132067.pdf>

⁸ <http://www.snis.gov.br/>

The city of Porto Alegre has developed an important model of participatory management of water and sanitation services. In 1989, the municipality initiated a process of participatory budgeting (Orçamento Participativo – OP), in which the citizens themselves decide the priorities for the next year's municipal investments. It occurs through public meetings, divided by city region and subject, which are open to all citizens and organisations. The decisions are made based on wide access to relevant information, and the government representatives attend the process to clarify any queries. Even though Porto Alegre's Water and Sewage Department – DMAE is autonomous from the municipality, it takes into account the OP decisions in the drafting of its plan of actions, after evaluating their feasibility. Also, DMAE's plan is submitted to the OP Council, a representative body, for consideration. The plan's implementation is subject to public review, carried out by specific commissions of the OP, while the status of the works is available on the internet⁹. Besides enabling transparency and accountability in the management of water and sanitation services in Porto Alegre, the OP has allowed DMAE to identify the main needs of community. In particular the process has led to the expansion of water and sewerage services to peripheral areas and informal settlements. The statistics illustrate the success of the initiative: from 1989 to 2001, the proportion of the population with access to water supply rose considerably from 94.7% to 99.5%, and the access to sanitary sewage collection rose from 73 % to 84 %. It should also be noted that from 1994 to 2004, while Porto Alegre's population grew 8.5 %, the number of household water connections rose 23% and households served with sanitary sewage collection went up around 40%¹⁰. After 18 years in operation, the OP has demonstrated itself to be a robust mechanism that has resisted political transitions in local government.

2.4 Water availability and allocation

According to Law 9 433, in cases of water scarcity priority should be given to human consumption and animal watering. The National Council on Water Resources is in charge of setting priorities for licensing the many uses of water resources, including the discharge of residual liquids or gases and the use of water to generate hydro-electricity. Meanwhile, the custodian of the water resource, which may be the National State or the states, has the power to issue licenses, to charge for use and to sanction unlicensed users. The basin committees issue the basin plans, establish charging mechanisms and suggest the amounts to be charged. In this sense, the SINGREH has a relevant role in guaranteeing the sustainable use of water resources and preventing demand exceeding availability.

According to the Secretariat of Water Resources, in 2006 licensed users accounted for only 23% of the estimated total number of users. Furthermore, only a few states have taken steps to charge for use of their water resources. At the federal level, charges are already imposed for the use of water in the Paraíba do Sul, Piracicaba, Capivari and Jundiá river basins.¹¹

The Piracicaba, Capivari, and Jundiá river basins provide important models of the implementation of the procedures contained in Law 9433¹². More than 4 million people live in the catchment area of these three rivers, and 94.2 % of these live in urban areas. The Federal

⁹ http://www.portoalegre.rs.gov.br/op_prestacao/acomp.asp

¹⁰ See MALTZ, Hélio, 'Porto Alegre's water: public and for all', Reclaiming public water: achievements, struggles and visions from around the world (Amsterdam, Transnational Institute and Corporate Europe Observatory, 2005), <http://www.tni.org/books/waterpalegre.pdf>. Also VIERO, Odete M., 'Water supply and sanitation in Porto Alegre/Brazil' (Mexico City, PRINWASS, 2003), <http://prinwass.ncl.ac.uk/PDFs/DMAE.PDF>

¹¹ For more information, see MINISTRY OF ENVIRONMENT. *Executive Synthesis of the National Water Resources Plan*. Brasilia, 2006, p. 43. http://pnrh.cnrh-srh.gov.br/temp/docs/executive_synthesis_NWRP_IN3.zip (English version).

¹² The home-page of the Committee is <http://www.comitepcj.sp.gov.br/comitespcj.htm#>

State has delegated the power to give licenses to São Paulo and Minas Gerais states, as a way to facilitate the monitoring of the use of water resources within the river basins. Also, the National Water Agency has been charging for water use since 2006, and the revenue will be invested in the sustainable management of the basin, through environmental education, sewage treatment, leakage control, and regularisation of water courses monitoring and planning. Those using less than 5 cubic metres of water per month are exempt from payment, as a form of protecting water use for essential human needs.

Furthermore, Law 11 445 provides that in critical situations of scarcity or water resources contamination, rationing measures may be adopted through special tariffs, guaranteeing financial equilibrium and demand management. Even though it does not ensure a minimum amount of water for personal and domestic uses, it sets the universal access as a guideline for national and local plans of action concerning water and sanitation services. It guarantees the continuity and regularity of water services for all and prohibits the disconnection of water supply with some exceptions, such as emergency situations, the execution of repairs or improvements in the system, the misconduct of the user and lack of payment.¹³ Therefore, the norm prioritises the use of water for essential needs over other purposes, especially in cases of scarcity.

The Basic Sanitation Company of São Paulo State (SABESP) offers a good example of demand management. In 1996, it adopted the Program on Rational Usage of Water (PURA).¹⁴ SABESP, a utility in which the major stakeholder is São Paulo State, provides water and sanitation services for 367 municipalities. In cooperation with the Polytechnic School of São Paulo University (EPUSP) and the Institute for Technologic Research (IPT), SABESP performs a diagnosis of water wastage in specific places and provides assistance in finding water saving solutions. It works primarily in hospitals, hotels, schools, universities, industrial kitchens, commercial buildings and public institutions. The solutions include the introduction of water saving devices, control over water quality, consumption management and the re-use of water. The company also gives educational lectures and carries out capacity building on leakage detection. On its website, it maintains a list of water-saving devices and their manufacturers, advice for water saving and procedures for leakage detection. These are simple and low-cost mechanisms to disseminate information. Most of the participants have experienced substantial savings, the highest of which was a 94% saving in a public school. The company is also developing a project on water reuse. Considering the necessity of water saving in the area, the company considered that good quality water should not be used when it is possible to use water of a lower quality. Used water is already being used by industries, for street-cleaning and watering of public parks and gardens¹⁵.

2.5 Water quality and hygiene

Law 11 445 dictates that water services must respect minimum standards, which include quality, regularity and continuity. Law 8.078, of 1990, named the Code of Consumers Defence, is an important tool for guaranteeing the quality in water supply. It protects the right to clear and adequate information about products and services, such as water quality, composition and the hazards it creates, as well as price. The Act 518/2004, issued by the Ministry of Health, establishes indicators to measure the drinking water conditions, as well as procedures and responsibilities on the control of water quality.

¹³ For the process followed for disconnection see section 2.7 on availability.

¹⁴ http://www.sabesp.com.br/CalandraWeb/CalandraRedirect/?temp=2&temp2=3&proj=sabesp&pub=T&nome=Uso_Racional_Agua_Generico&db=

¹⁵ <http://www.cidades.gov.br/pncda/Exemplos/Arqs/Reuso%20de%20agua.pdf>

Furthermore, The Presidential Decree 5.440, issued in 2005, defines tools and mechanisms for accessing information on water quality for human consumption. It requires the water supplier to inform users about the results of water quality analysis, the means of accessing information on water quality, any problems with the water supply that may be harmful to health and the precautions that should be taken. The information must be true, verifiable, clear, understandable and educative, promoting the sustainable use of water and the understanding of the relation between water quality and public health. Also, the users have the right to receive the information in the monthly water bill and annually in a report. Failure to adhere to these prescriptions is considered an infraction of the Code of Consumers Defence and is subject to sanctions.

Despite this legal framework, significant numbers of people are still affected by disease caused by unsafe water, flooding, lack of adequate sanitation and inadequate garbage disposal. In 2000, the national census ascertained that more than 800 thousand cases of dengue fever, malaria, hepatitis A, leptospirosis, typhus and yellow fever were reported to public authorities. In that year, more than 3 000 children under the age of five died of diarrhoea¹⁶.

An important initiative for assuring water quality is the Diagnosis of the Provision of Water and Sanitation Services in Brazil, drafted by the National Information System on Sanitation (SNIS). Since 1995, it monitors the implementation of the legal framework on water quality. In 2005, the Diagnosis reported that from the 2 667 municipalities analyzed, only 602 claimed to fully accomplish the Act 518; 1 203 municipalities claimed to partially accomplish it; and 839 municipalities could not answer due to lack of information, which is in itself a violation of the Act 518¹⁷. The SNIS is progressively increasing the number of municipalities reached by the diagnosis. The diagnosis of 2006, yet to be drafted, will include almost 4 000 municipalities, representing 70% of all Brazilian municipalities. Data are still insufficient, but the creation of a monitoring mechanism is already an important step to detect the main failures in assuring water quality.

2.6 Physical accessibility of water and sanitation

According to Law 11 445, the planning of water and sanitation policies must contain short, medium and long term targets for achieving universal access. The national plan, which is about to be drafted at the time of writing, and the local plans, must be consistent with this legal prescription. The Law also requires that all permanent urban buildings must be connected to water public supply systems and sewerage systems. In the absence of public systems of water supply and sewerage, it allows individual solutions, as long as they comply with legal standards.

The percentage of urban households with access to water and sanitation systems has increased significantly in Brazil. From 1970 to 2000, the number of urban households linked to water piped systems went up from 60% to 89%, and the households with sanitary sewage collection rose from 22% to 56%¹⁸.

Despite of the improvement in statistics, the physical access to water and sanitation is still neglected in a number of ways in Brazil. In 2007, in the city of Monte Santo, in Bahia State, 7 000 inhabitants were subject to 100 days of interrupted of piped water delivery. This was caused by the structural incapacity of the water supply system operated by the Water and Sanitation Company of Bahia (EMBASA). During that period, users continued to pay water tariffs as

¹⁶ INSTITUTO SOCIOAMBIENTAL. *Almanaque Brasil Socioambiental*. São Paulo, 2007, p. 305.

¹⁷ MINISTRY OF CITIES, National Information System on Sanitation. *Diagnosis of Water and Sanitation Services – 2005*. <http://www.snis.gov.br/>

¹⁸ IBGE – Brazilian Institute for Geography and Statistics, Demographic Census, 2000.

normal even though no alternative sources of water were offered users. Tank-trucks were used only by those who could pay R\$ 50 (US\$ 28) for it. Some individuals had to travel up to 20 km to collect water from the next city or from unsafe sources. In view of the situation, the local 'Ministério Público' (State Attorney-General) filed an 'ação civil pública' (collective action) against EMBASA. The action demanded the immediate implementation of works required to ensure effective water delivery in the city, the provision of emergency alternative supplies of a minimum essential amount of water, and the authorisation for users not to paying tariffs until the service normalised. The action was accompanied by strong social support; more than 1 200 individuals signed the petition, and protests were organised. The judge conceded emergency measures in 7 December 2007, under a daily penalty of R\$ 10000 (US\$ 5700) for each day the measures are not implemented. The measures are already being enforced, tank-trucks are being provided by EMBASA and the Municipality. Meanwhile, the Public Defender is holding negotiations with the Water Company to start the works as soon as possible.

2.7 Affordability of water and sanitation

Law 11 445 establishes that the economic sustainability of water and sanitation services shall be assured through charging for the use of services. Nevertheless, it also states that the tariffs must take into account several factors, including the users' category (i.e. domestic or commercial); the patterns of water use; and the capacity of the user to pay. The service provider must also ensure minimum amounts of supply for low-income users. Furthermore, the Law encourages the creation of cross-subsidy polices for the achievement of universal access to water and sanitation, focussed on low-income users and localities.

Law 14 445 is not clear concerning the possibility of disconnection of water supply due to lack of payment. It allows disconnection after 30 days notice to the user, although, it states that:

“the interruption or restriction of the supply of health, educational and collective internment institutions and low income residential users that benefit from the social tariff, must follow criteria and terms that ensure minimum health conditions for those affected”.

However, the criteria and terms have yet to be drafted.

Besides expanding coverage of the piped water supply and sanitary sewage collection, Porto Alegre's DMAE has also applied significant cross-subsidies in its tariffs for almost 20 years. As a result, the low-income population not only have access to safe water but can also afford the services, assuring their continuance. The social tariff mechanism permits those using less than ten cubic metres per month to pay for only four cubic metres. It is applicable to low income consumers living in deprived conditions, and to some institutions, such as schools. Approximately 65 650 users are granted social tariffs. Furthermore, those using less than 20 cubic metres per month are subsidised by those who consume more. From 20 to 1 000 cubic metres, tariffs increase progressively according to the level of consumption. Above 1 000 cubic meters, the tariffs are very high. The mechanism of charging for water according to the financial capacity of each user is a manner of assuring affordability, as well as encouraging water-saving. As a result of this policy, DMAE has achieved a significant annual surplus, which is invested in the priorities set by the OP. The successful combination of the two mechanisms, the OP and the cross-subsidy policy, has resulted in the extension and continuity of water and sanitation services in Porto Alegre.

3. Lessons learnt

In recent years, Brazil has been experiencing an interesting form of participative decision-making. Many local experiences of democratic administration of the cities have prompted the use of similar processes at the national level. In 2001, the City Statute (Law 10.257) was approved, an innovative legal framework that took to a national level those experiences. The debates around this Law had started eleven years before its approval, and during this process many social movements were strengthened. Based on the Statute, the mechanism of the National Cities Conference was created, with local, regional and national meetings where multiple stakeholders can contribute in the decision-making process.

The Law on Environmental Sanitation was approved in 2007 as a result of those processes. The discussions on the cities' main problems have shown the necessity of a regulatory framework for water and sanitation services. Because it is based on many and various previous experiences, the Law is consistent to the Brazilian reality and is very likely to be widely applied. At the time of writing, many municipalities have prepared or are preparing their plans of action, while at the national level the Presidential Decree regulating the Law is about to be drafted. Once the Decree is passed, it will enable the participation process for the drafting of a national plan of action on sanitation to begin.

Brazil is learning how to create consensus among the several social sectors, despite its size and wide regional differences. The experience shows that it is always possible to implement participative decision-making processes, independently of the geographic proportions of a State.

At the beginning of 2007 the Federal Government started the implementation of the Program of Growth Acceleration (PAC). It is planned that, from 2007 to 2010, approximately 20 billion US dollars will be invested in water and sanitation works and services, with resources from national government, states and municipalities. The various social actors, strengthened during the participative processes, will have an important role in controlling the investments.

The specific experiences related in this document also show the increase in State and social actors' commitment to rights-based approaches to water and sanitation. Through these approaches, it is possible to identify the different needs and solutions coexisting in the country.

Non-discrimination and the inclusion of vulnerable and marginalised groups are great concerns of the Brazilian legal framework. Despite this, many policy makers still make decisions on the implementation of water and sanitation services based on housing or land status. Hence, the experience of Guarulhos is informative, since it shows the possibility of improving access to water and sanitation in informal settlements despite the lack of tenure.

In Porto Alegre, the OP, combined with the cross-subsidies policy, has been an important mechanism for expanding water and sewerage services and achieving near universal access to water and sanitation. It shows how a rights-based approach to water services management can contribute to the meeting of human needs. Also, the system is now consolidated and has been incorporated into the community consciousness. Considering the strong popular support, the political transition in the government has not interfered in the OP structure.

Nevertheless, the OP has continually faced difficulties due to the lack of a binding mechanism. The Municipality is not legally bound to comply with the decisions made by the OP. Even though there are commissions controlling the implementation of the decisions, the scarcity of economic resources is sometimes presented as a reason for not accomplishing the OP priorities. Moreover, it is common that the portion of the budget subject to popular decision-making is not

fully executed by the Municipality. The sum of money submitted to the OP deliberation is sometimes higher than the sum actually applied. It allows the Municipality to select only some of the OP priority works to be implemented on a discretionary basis. When the popular decision-making is not final, the OP loses its purpose. Hence, many stakeholders are pressing for the development of a legal mechanism at the federal level to bind municipalities to popular decision-making, which might consolidate a rights-based approach.

The efforts that have been undertaken in the country to license and charge for the use of water resources shows that it is possible to control water use and pollution of water resources through such mechanisms. The National System of Water Resources Management (SINGREH) appears to be a solution for a country with so many responsible public bodies, which act in territories that do not correspond to the geography of river basins. The experience of charging for water use in Piracicaba, Capivari, and Jundiaí river basins demonstrates that the system can be applied successfully. This is a possible solution for avoiding contamination of water resources affecting several states of the Federation, especially where the major polluters are located in areas that are not the most at risk. The control over the whole river basin ensures that no single government entity is responsible for its sustainable management; instead it is a collective responsibility. It is still not possible to perceive the results of the reinvestment of the revenue gained from water charges, but it is very likely that the participative mechanism established by SINGREH will help in the achievement of good results. In summary, the integrated management of water resources established in Law 9433 is an important mechanism in promoting the use of water as a public good and inhibiting its appropriation and contamination by private-parties.

The SABESP experience highlights the possibility of creating a water saving culture through the action of specific institutions, which will gradually spread throughout society. The kind of assistance SABESP provides, if combined with higher tariffs for bigger consumers, could lead to significant water savings. In the case of SABESP, although the company supplies water for a high number of users, it is difficult to perceive the global results; however, the case does demonstrate that a culture of rationing can be created with access to appropriate information.

The legal framework for water quality and hygiene, the Decree 5440 and the Code of Consumer Defence are important tools for guaranteeing a rights-based approach of water services. Some municipalities are following the legal prescriptions, controlling water quality and facilitating the wide access to information. The National Information System on Sanitation appears to be an important tool for monitoring the progress of water and sanitation services and detecting where the main failures lie in. It is especially relevant in the development of the national and local plans of action.

The experience of Monte Santo City shows how judicial measures can be useful in guaranteeing physical access to an essential minimum amount of water when there is a lack of politic will. In this case, the measure did not replace the dialogue process established between social actors, but instead worked as a tool to accelerate it. Now individuals are in better conditions to demand the implementation of the works, since the Judiciary has recognised the right to safe and sufficient water.

To conclude, the legal framework concerning water and sanitation in Brazil has been significantly improved in the last years. The institutions and actors are still undertaking to find ways to implement them. In doing so, it is really important to stay attentive to local experiences, in order not to lose what has already been achieved, but instead learn from it.

CASE STUDY B: KENYA

Introduction

1. Country background

Kenya is situated on the East coast of Africa. It borders Ethiopia to the north, Somalia to the northeast, Tanzania to the south, Uganda to the west, and Sudan to the northwest, with the Indian Ocean running along the southeast border. Nairobi, Kenya's capital has a population of approximately 2.5 million people. Its other main urban areas are Mombasa and Kisumu with an estimated population of 700 000 and 450 000 respectively. Overall the country's population is estimated at 32 million.¹⁹

Kenya is a water-scarce country, with surface water coverage of only 2% and registering a water scarce category of 647m³ per capita against the global benchmark of 1 000m³.²⁰ The annual surface water potential is estimated at only 19 590 million cubic metres and groundwater potential estimated at 619 million cubic metres.²¹ Water scarcity is further aggravated by unreliable and/or changing rainfall patterns, degradation of water resources and periodic droughts and perennial floods. Out of a total area of 583 000 sq. km. (225 000 sq. miles), only 20% is medium to high potential agricultural land and the rest mainly arid or semi-arid. In contrast, approximately 75% of the country's population live within the medium to high potential agricultural land while 25% live in the arid and semi-arid lands.²²

Estimates of piped water coverage provided by the Ministry of Water and Irrigation in 2006 stand at 47% nationally. The National Water Services Strategy estimates that approximately 57% of households that have access to water, use water from sources considered safe.²³ Sustainable access to safe water is estimated at 60% in the urban areas, with a decrease to 20% within the informal settlements and 40% in the rural areas. In Nairobi, 58% of the total households, mostly residing in informal settlements, obtain water from water kiosks, informal water delivery services, such as hand carts and illegal water connections.

With respect to basic sanitation the Ministry of Water and Irrigation estimates a national coverage of 50%. In the urban area, sanitation coverage is estimated at 55% and dropping to 45% in the rural areas. In a 2002 government report it was estimated that 29% of urban households have access to water-borne sewerage, the remainder depending on on-site sanitation including septic tanks and pit- latrines. Rural households are dependent on mainly pit latrines.²⁴

¹⁹ UN Committee on Economic, Social and Cultural Rights (CESCR), *Implementation of the International Covenant on Economic, Social and Cultural Rights : periodic reports submitted by States parties under articles 16 and 17 of the Covenant : Kenya*, 11 September 2007. E/C.12/KEN/1. Online. UNHCR Refworld, available at: <http://www.unhcr.org/cgi-bin/texis/vtx/refworld/rwmain?docid=47343c2e2> [accessed 23 November 2007]

²⁰ Definitions of Water Stress and Scarcity: An area is experiencing water stress when annual water supplies drop below 1 700 m³ per person. When annual water supplies drop below 1 000 m³ per person, the population faces water scarcity. Sources: UNPD, UNEP, World Bank, and WRI, 2000.

See <http://www.unep.org/dewa/assessments/ecosystems/water/vitalwater/21.htm> for more information.

²¹ Ministry of Environment and National Resources, Kenya National Assessment Report to WSSD (Rio +10) p.22.

²² Ministry of Lands, Draft National Land Policy, p. 5-6.

²³ Ministry of Water and Irrigation, the National Water Services Strategy 2007-2015 p.1. The policy notes that estimates depend on reference line/standards which have not yet to be defined on a national level.

²⁴ Kenya National Assessment Report to WSSD (Rio +10) p.22.

In the arid and semi-arid areas, the poor account for as much as 80% of the population with women and children comprising the majority. The 2002 national estimate of those below the poverty line (living on less than US \$ 1 a day) stood at 56% of the population. The high poverty prevalence is attributed to, among other issues, a lack of access to safe and sufficient water and improved sanitation.²⁵ The inadequate access to water and sanitation, specifically the safe disposal of excreta, has been linked to increased child mortality, higher prevalence of disease and to the exacerbation of environmental degradation.

In Nairobi's informal settlements it is estimated that there are 91 infant deaths in a population of 1 000 compared to less than 57 infant deaths in formal urban settlements. In rural areas, infant deaths are estimated at almost 76 in 1 000.²⁶ While indicative of the magnitude of the lack of safe water and basic sanitation coverage nationally, these statistics due to information insufficiencies fail to take into account the actual realities in informal settlements and the rural areas especially arid and semi arid areas.²⁷

2. Adoption of and efforts to implement the right

In 2002 the water sector reforms in Kenya culminated in the passing of the Water Act; the Act, which was gazetted in October 2002, gained legislative force in 2003. The Water Act introduced new water management institutions to govern water and sanitation. While water resources remained vested in the state, the water reforms saw the introduction of the commercialisation of water resources as part of the decentralisation process and the participation of stakeholders in the management of national water resources. With the passing of the Water Act and consequent water sector reforms, the Government committed itself to adopting a human rights based approach in the water sector. Although the right to water and sanitation is not explicitly provided in the Water Act, the right to water and sanitation was formally recognised in a number of key policies developed as part of the water sector reforms.

The separation of policy and regulatory responsibilities and the devolution of responsibilities for water resources management and water services provision to local level functions has been the principal mechanism for improving accountability and transparency in the water and sanitation sector. While lauded for enhancing stakeholder participation and expanding water and sanitation services provision and improving water resources management, the poor are still unable to secure the gains from these reforms.

2.1 Institutional framework

The Water Act established the Water Services Regulatory Board (WASREB) to set standards and regulate the sub-sector; the Water Appeal Board (WAB) to adjudicate on disputes; seven Water Services Boards (WSBs) to be responsible for the management of efficient and economical provision of water and sewerage services; Water Services Providers (WSPs) to act as agents of the Water Services Boards (WSBs) in the actual provision of water and sewerage services; the Water Services Trust Fund (WSTF) to finance pro-poor investments; and the Water Resources Management Authority (WRMA) to manage and protect Kenya's resources. Catchment Area Advisory Committees (CAAC) support the WRMAs at the regional Level. Water Resource Users

²⁵ Ibid. p.10.

²⁶Dr. Anna Kajumolo Tibajuka, *Africa on the Move: An Urban Crisis in the Making*, UN Habitat (2005).

²⁷ Ministry of Water and Irrigation, *the Pro- Poor Implementation Plan for Water Supply and Sanitation (PPIP-WSS)* 2007 p. 8.

Associations (WRUA) were established as a medium for cooperative management of water resources and conflict resolution at sub-catchment level. The Ministry of Water and Irrigation (MWI) was vested with the responsibility for overall sector oversight including policy formulation, coordination and resource mobilisation.

A number of policies and regulations have been developed with the passing of the Water Act to ensure coordination and to implement activities in the water sector. Key policies include the National Water Resources Management Strategy (2005-2008) for the management of water resources in the country; the National Water Services Strategy (2007-2015) aimed at offering sustainable access to safe water and basic sanitation to all; the Water Services Regulatory Board Tariff Guidelines and Model (2007), whose goal is to establish tariffs that balance commercial, social and ecological interests and the Pro-Poor Implementation Plan for Water Supply and Sanitation (PPIP - WSS) 2007 aimed at up-scaling and fast-tracking actions for water and sanitation coverage by concentrating on low cost technology and settlements of the urban poor.²⁸

2.2 Non-discrimination and attention to vulnerable and marginalised groups

The National Water Resources Management Strategy²⁹ and the Draft National Water Services Strategy³⁰ address the issue of representation of women in decision-making as an important cross-sectoral topic to be mainstreamed in water sector policies. The National Water Services Strategy sets as a target for WSBs and WSPs to ensure that the number of female operators for public/communal outlets is over 50% by 2009. The Ministry of Water and Irrigation is required to ensure that female board members in the sector institutions occupy one third of the available posts and 50% in the committees for rural WSS by 2009. This is partly in recognition of the gender dimension in the access to water and sanitation that places women at the centre with respect to water collection for domestic and personal use, and also in response to current the marginalisation of women in the provision of, and access to, water and sanitation.

From the outset, the manner in which the Water Act was drafted, and the new institutions it established, were gender neutral by design. However, beyond legislative and policy recognition of the need to remedy past omissions, there are no visible government measures to ensure that marginalised groups such as women, the poor, those affected and infected with HIV/AIDS and vulnerable groups such as children receive due attention in the implementation of on going reforms.

2.3 Participation and access to information

The water sector reforms have been lauded for their emphasis on community participation and access to information. The Water Act and the Water Resources Management Strategy, among others, acknowledge the participation of stakeholders. Stakeholder participation in the water sector has encouraged the participation of representatives of poor communities who are underserved in regard to water and sanitation, or who are currently not provided services by the government. The challenge however has remained in how Kenya can guarantee, implement and put into practice the genuine and informed participation of representatives of poor and other marginalised groups.

²⁸ The Ministry of Health, National Environmental Sanitation and Hygiene Policy (2006) provides similar proposals on the provision of improved sanitation technology that are cost effective, affordable and appropriate for the needs of children, women and men, p.2.

²⁹ Ministry of Water and Irrigation, the National Water Resources Management Strategy (2005-2008) ch. 5.3.

³⁰ Ministry of Water and Irrigation, the National Water Services Strategy 2007-2015 para. 6.4

A broad spectrum of stakeholders has been reached through government lead multi-stakeholder dialogues during the development of water and sanitation legislation, policies and programmes. At best however the forums have included token representatives from poor and marginalised groups. The quality of representation is evidence of the water sector grappling with the financial, social and political cost of community participation. The most striking oversight is that almost five years after the enactment of the Water Act, the poor and marginalised who stand the most to benefit remain largely unaware of the water sector reforms and the opportunities available to them.

Access to information has however received due attention under the water sector reforms. The National Water Services Strategy prioritises the development of an information system at a national level by 2009 and need for WSPs to provide information to their consumers from 2008 on water quality and environmental health data. The demand for information at the community level has not been met and remains a high priority area. As a result, individuals and groups have not fully utilised opportunities to participate in water and sanitation service provision, including through participating in policy formulation, budget considerations, development of plans and strategies, implementation of projects and regulation and monitoring of services.

A case in point is the development of city by-laws in Nairobi. Delivery of services by local authorities such as the Nairobi City Council remains largely uncoordinated and sporadic. There is little indication that sufficient focus, beyond policy declarations, has been given to ensuring that the poor are truly entitled to the provision of basic services and or should be equal participants in the development of by laws and other policies. In July 2007, the Nairobi City Council published in the Kenya Gazette No. 6297 several by-laws including Solid Waste Management and Waste Water Conservancy by-laws of 2007.

The by-laws were developed without meaningful public participation especially of community groups in Nairobi's informal settlements that had and continue to provide garbage disposal services. While the by-laws came into effect in July 2007, the Council failed to communicate or widely publish the contents of the by laws or provide any grace period for transition. In sum the by-laws seek to criminalise garbage collection and disposal services operating without the authority of the Nairobi City Council. As provided in the by-laws, the Council, before issuance of a waste operator permit, will require community groups to meet technical and financial requirements. Community groups within informal settlements have expressed their inability to meet these requirements, exposing the community groups to criminal prosecution.

2.4 Water availability and allocation

The National Water Services Strategy indicates that the government intends to enable the development and enforcement of national standards (technical and managerial) for low-cost technologies by 2008. This is geared to address water availability and allocation particularly in low income areas by adopting low cost technical options. Financial resources for this initiative will be provided through WSTF. WASREB will be responsible for the negotiation, development and enforcement of applicable tariffs.

The National Water Services Strategy estimates that 60% of water supply is unaccounted for; that is, lost through leakage and illegal connections. To address this, the WASREB, WSBs, and WSPs have been made responsible for decreasing nationwide unaccounted for water from 2008. This in turn stands to significantly increase water supply and improve water quality, especially within the informal settlements. To secure these gains for the residents of the informal settlements, who rely

on illegal connections, there is need for deliberate and specific policy guidelines regulating disconnections that may be carried out in attempts at decreasing unaccounted for water.

Similar challenges are facing the water sector with regard to water rationing. Demand for all water uses (essential and non-essential) exceeds supply in most Kenyan urban areas, leading to frequent water shortages. WSPs tend to address this challenge by cutting off supply to specific areas (where this is technically feasible) or for specific portions of the day. The National Water Services Strategy hopes to address this pertinent issue by requiring the WASREB and WSBs to ensure that contracted WSPs managing piped systems provide water at least 12 hours per day on average.³¹ Water rationing has a domino effect on the poor especially those in informal settlements and this is discussed in 2.7.

2.5 Water quality and hygiene

Kenya has identified as a long term goal the need to ensure the access to safe and accessible water for all. Currently, water quality standards and monitoring in Kenya adhere to the WHO guidelines as provided in the Kenyan water quality standards developed by the Kenya Bureau of Standards. The Ministry of Water and Irrigation has designated a division to be responsible for water quality and pollution. In line with the National Health Sector Strategic Plan (2006) the Ministry of Health is similarly charged with monitoring water quality and is responsible for water quality surveillance. Currently no consensus has been reached on the respective roles and responsibilities of the Ministry of Water and Irrigation and the Ministry of Health with respect to water quality and hygiene.

Closer to the consumer level, the WSB in collaboration with the WSP, is responsible for water quality at water points and within piped systems. Both institutions are accountable to the WASREB. This responsibility extends to the selection and extraction of water from new sources and water points. The Pro-Poor Implementation Plan for Water Supply and Sanitation (PPIP - WSS) 2007 creates an obligation on the part of the WSP to provide information to its consumers on the results of water quality tests.³²

While WSPs are responsible for ensuring that water supplied to informal settlements meets approved water quality standards, there is inadequate monitoring of both formal and informal water supplies. The lack of ministerial coordination between the Ministry of Health and the Ministry of Water and Irrigation is most glaring within the informal settlement where attention to hygiene education and basic sanitation is most needed.

Water quality is not assured for residents of informal settlements. WSBs and WSPs are required by the WASREB to extend their services progressively to areas that are still served by informal providers either by linking up with informal providers and ensure fulfilment of minimum requirements. Alternatively WSPs can extend their own systems in order to provide the same level of service to the poor as those already connected, especially with regard to water quality.³³

In Nairobi for instance, the Nairobi Water and Sewerage Company (NWSC), contracted as the sole water services provider by the Athi Water Services Board, is required to fulfil certain minimum requirements under the service agreement. In order to do so, NWSC must extend its services progressively to informal areas either by extending its own systems or by linking up with

³¹ Ibid p. 35.

³² The requirement for water testing is also identified in the Ministry of Water and Irrigation, National Water Services Strategy proposing that water service boards and providers begin testing by 2008, p. 33.

³³ Ministry of Water and Irrigation, the Water Services Regulatory Board Tariff Guidelines and Model p.5.

informal providers so as to ensure fulfilment of minimum requirements. To provide water to kiosks, the NWSA requires that water operators install their own pipe network and specifically requires the use of metal pipes. Historically in most informal settlements most water operators use low quality plastic water pipe connections that often burst, exposing residents to contaminated water. As a result, the Nairobi Water and Sewerage Company is reluctant to assume responsibility for water quality, water operators on the other hand are reluctant to upgrade their facilities due to the high cost involved of replacing the piped network and the lack of secure tenure which inevitably makes any investment insecure.

2.6 Physical accessibility of water and sanitation

The National Water Services Strategy affirms that everyone is entitled to sustainable access to safe water and basic sanitation. Currently the National Water Services Strategy indicates that the WASREB will require the explicit provision within Service Provision Agreements concluded between the WSBs and WSPs for the planned extension of services into poor areas such as the informal settlement.³⁴

The National Water Services Strategy aims to reduce water collection time to an average of thirty minutes (return trip, including waiting time) in urban areas and to reduce the distance from the nearest water collection point to two kilometres in rural areas. Residents of informal settlements, unlike their counterparts in the rural setting, may not have to contend with long distances to access water, but are faced with long queues at water points. Access is further hampered by queue jumping and heckling. The location of water points on the other hand may not be appropriate for women and girls who are particularly vulnerable to attack when accessing facilities at night.³⁵

The government has mandated the WASREB and WSBs to propose an implementation strategy for the involvement of water sector institutions (including service providers) to improve access to basic sanitation for the poor by 2008. The apparent lack of policy attention to access to sanitation is evident in the informal settlements. In Kibera for example, about 70 percent of households have neither a formal or informal connection to a sewer and rely on a pit latrine that is not always emptied when necessary. About 68 percent of households rely on shared latrines with an average of 71 people per toilet. This problem is not necessarily always a question of affordability but rather the lack of allocated space for construction of facilities or prohibitive costs of latrine exhaustion services offered by service providers and the Nairobi City Council.

2.7 Affordability of water and sanitation

The main objective of the Water Services Regulatory Board Tariff Guidelines and Model, April 2007, “is to establish tariffs that balance commercial, social and ecological interests by ensuring access to all while allowing WSB and WSP to recover justified costs”.³⁶ The Tariff guidelines

³⁴ Munguti Katui Katua et al, Kenya-German Development Cooperation in the Water Sector, Assessment from a Human Rights Perspective (GTZ, 2007) p. 27. This report is available at the web-site of the German Institute for Human Rights, <http://www.institut-fuer-menschenrechte.de>.

³⁵ Patricia Kameri Mbote, Gender Issues in the Management of Water: An Analysis of Kenya’s Legal and Institutional Framework (2007) Paper prepared for the workshop entitled ‘Legal Aspects of Water Sector Reforms’ to be organised in Geneva from 20 to 21 April 2007 by the International Environmental Law Research Centre (IELRC).

³⁶ Water Services Regulatory Board Tariff Guidelines and Model, April 2007, p.4.

further specify that WSB and WSP should apply tariffs at Water Kiosks for a minimum consumption of 20 litres which should be affordable.³⁷

The Water Services Regulatory Board Tariff Guidelines and Model, April 2007 further provides for “a “pro-poor” policy that includes the provision of a lifeline tariff for poor households. This can be done by a “social block tariff”, charging a lower percentage of the average tariff (e.g. 50-70%) for the consumption of up to six cubic metres.³⁸ In line with government policy, all customers are expected to be metered. Where metering has not been achieved, WSBs and WSPs are required to fix a monthly charge for its customers as a medium term measure.³⁹ The tariff guidelines further provide for rising block tariffs for metered residential customers to increase cross subsidisation, reduce water wastage and unaccounted for water.

Under section 5.9 of the tariff guidelines, specific guidance for water tariffs at water kiosks and standpipes is provided. The rationale for the provision of water to the poor through the water kiosk system is the high cost of household connections⁴⁰ which is viewed beyond the reach of the poor, especially in informal settlements. The cost includes connection fees due on installation, maintenance costs for the meter and the standing charge for monthly billing. Based on the poor credit performance of consumers in low income areas, the tariff guidelines conclude that poor households cannot afford to pay a monthly bill regularly and are therefore better served by kiosks.

On this basis the tariff guidelines recommend the water kiosk system for low income areas such as informal settlements. The guidelines specifically provide that the price per cubic metre of water should not be higher than the lifeline tariff. The WSP is required to control the tariffs at the kiosk to ensure that consumers benefit from the lifeline tariff. To ensure that kiosk operators have sufficient incentive to provide the service, the guidelines propose a minimum number of between 300 and 500 consumers per tap.

While the tariff guidelines respond to the need to subsidise water and sanitation costs for low income users, the guidelines do not provide guidance on disconnection procedures in the event of water and sanitation bills remaining unpaid. The lack of policy guidelines regulating disconnections means that the water sector reforms have yet to take into consideration genuine inability to pay into disconnection procedures. This omission has significant repercussions for the poor.

Even when poor households are connected to a piped water supply, when water rationing occurs it has a disproportionately adverse effect on poor households. Financial constraints do not allow many households to afford adequate water storage facilities or purchase water in bulk. In addition during rationing water prices tend to soar further burdening the poor who are already paying up to two times more for water supplied than middle and upper income earners.

3. Lessons learnt

The water sector reform in Kenya has created an enabling legal and policy environment for the expansion and improvement of water and sanitation services. While still in its early stages of implementation, noticeable improvements in service delivery have been witnessed. However despite legislative and policy gains due to the reforms, the poor - especially those within informal

³⁷ Ibid p. 5.

³⁸ Ibid s. 5.5.

³⁹ Ministry of Water and Irrigation, The Water Services Regulatory Board Tariff Guidelines and Model p.5.

⁴⁰ The guidelines recommend payment in instalments for single household connections s. 5.12.

settlements - remain largely underserved with minimal improvements in water and sanitation coverage. This is, in part, a result of the historical and contemporary failure to involve the poor in the development of the water sector reform process, as well as a lack of access to information about the reforms and opportunities available for their participation in its implementation.

The Government has committed itself to adopting a human rights based approach (RBA) in the water and sanitation sector. It should be noted that Kenya's current constitution does not make provision for the explicit recognition of the right to water and sanitation. Nonetheless, the growing body of legislation and policies in Kenya point towards an inclination to ensuring that sufficient, safe, acceptable, accessible and affordable water will be provided to everyone through formal recognition of the rights. In implementing a RBA in the sector, the government has maintained its commitment to mainstream RBA in the sector by ensuring that principles of non discrimination and attention to vulnerable and marginalised groups, participation and access to information, empowerment, transparency and accountability and the express linkage to all rights, are adopted in all policy and legislation formulation and accordingly implemented.

Kenya has made strides in its efforts to ensure the access to safe and accessible water for all. Currently, water quality standards and monitoring in Kenya adhere to the WHO guidelines as provided in the Kenyan water quality standards developed by the Kenya Bureau of Standards. The growing concern has been that the present lack of consensus between the various government institutions, primarily the Ministries of Local Government, Land, Environment, Health and Water and Irrigation. This inability to identify their respective roles and responsibilities with regard to water and sanitation can delay implementation or lead to duplication of efforts. Specifically, the link between hygiene, sanitation and health risk awareness and improved access to clean and safe water and improved sanitation cannot be dealt with in isolation. There are currently efforts to improve overall ministerial coordination. For instance, the Ministry of Health in coordination with the Ministry of Water and Irrigation have jointly taken the lead in the implementation of information and education campaigns on water quality, storage and environmental management including sustainable development principles and concepts.

There are a number of challenges that have arisen particularly within informal settlements in responding to operational and institutional deficiencies that had characterised the sector prior to the reforms. The failure of WSPs to consider local conditions in Nairobi's informal settlement when addressing illegal connections, leakages and unaccounted for water, has resulted in communities resisting or sabotaging water and sanitation projects. While an issue of concern, new water management institutions were created in part to respond to decades of neglect and mismanagement in the water and sanitation sector.

The need to ensure transparency and accountability to curb rampant corruption in the sector has remained high in the governments' priorities. Since 2004, the Ministry of Water and Irrigation, the WASREB, WSB and in particular the WSPs have been responding to operational and institutional deficiencies. The strengthening of institutions and building public confidence is a slow process, requiring attitude changes from all stakeholders. Continuing improvements have included institutional capacity building training, improved reporting mechanisms from 2007 and improved complaint mechanisms among other things.

The need to ensure the non-discrimination and inclusion of vulnerable and marginalised groups has received a great deal of attention in the water sector. The growing body of policies and government directives indicate that corrective measures are in place to prohibit actual or constructive discrimination. Similarly, the water sector reforms have addressed the issue of physical accessibility of water and sanitation services. There are currently express provisions requiring the incremental and progressive expansion of services to all, including planned

extension of water and sanitation services into poor areas such as the informal settlement. Water collection time and distance has similarly been factored in a bid to improve accessibility. In both instances continued open dialogue between all stakeholders that will allow objective critiques in implementation will be necessary to ensure that sustained development.

In line with RBA, Kenya has adopted provisions requiring public participation in water and sanitation service provision. While the reforms have introduced measures such as the Pro-Poor Implementation Plan for Water Supply and Sanitation, the establishment of the WSTF and made explicit provisions for prioritising access to the poor, vulnerable and marginalised, these groups who stand the most to benefit from the reforms have little or no information on substantive developments in the sector. The sustainable access to safe and sufficient water and basic sanitation can only be achieved through meaningful consultation and the participation of its intended beneficiaries. The impact of government led information dissemination campaigns have yet to be felt and more can be done to ensure that residents of the informal settlements are informed and can benefit from initiatives such as the WSTF.

Affordability has remained central in discussions on the water sector reforms. Legislative and policy gains include the development of tariff guidelines. As noted in section 2.7 above on the development of tariff guidelines, attention should be given to the poor and vulnerable who are unable to afford basic minimum essential water (for personal and domestic use). In particular, through provision of procedural and substantive protection against disconnection of water supply or sanitation services due to non payment. While the poor, particularly in the informal settlements continue to raise concerns regarding the affordability of water and sanitation services, the government has a responsibility to pay specific attention to ensuring that the poor benefit from subsidies and that water operators respect applicable tariffs.

The implementation of a RBA to the water sector has brought to the fore the diverse needs and varying local conditions of poor, vulnerable and marginalised. The challenge at this early stage is the proper identification of needs that would inform the prioritisation of water and sanitation projects in the country. Reforms are costly and time consuming. An understanding is emerging that it should not be assumed that stakeholders will appreciate intended gains in their involvement in water sector reforms. Continuous efforts should be made through critical information exchange on the benefits of participation for the poor and marginalised and on curbing corruption.

Kenya's recent water sector reforms point to a growing commitment and political will to secure significant improvements in the sector. It is however through the implementation of the developed legislation and policies that the sustainability and efficiency of the reforms will be tested. Identified gaps will require urgent attention to ensure tandem growth in the sector. Current legislation and policies may require further rationalisation to ensure that the intended gains and protections envisaged are able to be transformed into practical and effective tools for the promotion and protection of the right to water and sanitation.

CASE STUDY C: SOUTH AFRICA

Introduction

According to UNDP, South Africa was one of the few countries that spent more on water and sanitation than on the military.⁴¹ The water and sanitation sector has benefited from a series of reforms in post-apartheid South Africa. These reforms were intended to redress the disparities perpetuated by previous racial segregation policies resulting in severe inequalities between black and white communities in terms of access to water and sanitation services and other facilities. Compounding this massive problem is a national scarcity of fresh water resources which has contributed to a reduction of available water and increased competition among users. Consequently, water reform and water justice became an important aspect of the new dispensation's reconstruction and development policy. South Africa has adopted a progressive law and policy framework for water and sanitation, predicated on the constitutional recognition of the right of access to water and, implicitly, sanitation. The 1996 constitution is the 'supreme law of the Republic; law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled.'⁴² This constitutional protection of the right has been amplified and given content in subsequent legislations, policies, frameworks and strategies all aimed at realising the right of access to water and sanitation services.

The National Water Act 1998 (NWA) sets out a comprehensive agenda for water resource management based on the principle of integrated management in order to achieve sustainability, equity and efficiency in a decentralised and participatory manner. The Water Services Act 1997 (WSA) creates a developmental regulatory framework within which water services can be provided. It establishes water service institutions and defines their roles and responsibilities. It also provides for accessibility of water by domestic users and secures the right of access to basic water supply and basic sanitation, giving effect to the constitutional guarantee. The Free Basic Water policy sets out the framework for the implementation of the free 6 000 litres of safe water per household per month. Most recently, the draft Regulatory Strategy for the water and sanitation sector has outlined how the government intends to achieve effective regulation of the sector in order to fulfil its constitutional obligations.

This study documents and evaluates the attempt to implement the right to water and sanitation in urban water and sanitation services in South Africa. It describes relevant laws, policies and frameworks and the various institutions set up in this respect.

1. Country background

South Africa is a nation of extreme disparities, which are the legacy of two centuries of European colonial rule and fifty years of formal apartheid. Despite its moderate national wealth the apartheid policies in place until 1994 have left the people of South Africa largely segregated by colour.⁴³ This inequality is also reflected in municipal water and sanitation services. White suburbs account for more than 50% of residential water use and by 2 000 only 27% of black households had running water, compared to 96% of white households. There is a major backlog

⁴¹ Bathandwa Mbola, 'South Africa: UNICEF Hails International Sanitation Year' 3 January 2008 available at <http://www.allAfrica.com>

⁴² Section 2, 1996 Constitution.

⁴³ Karen Cavanaugh, *Emerging South Africa: Human Rights Responses in the Post-Apartheid Era*, 5 CARDOZA J. INT'L & COMP. L.291, 293 (1997).

in basic water provision to rural and peri-urban poor communities. Over 12 million people do not have access to potable water and 18 million people lack adequate sanitation.⁴⁴ Out of a population of over 48.6 million people there are currently 2.9 million people with no access to a basic level of water supply.⁴⁵ A further 4 million people have access to a water supply which does not meet the basic service levels.⁴⁶ Between 2006 and 2007, water was supplied to 1.25 million people.⁴⁷ Currently, 74% of the population with access to water enjoy access to free basic water with 97% of water service authorities implementing the free basic water services programme, but only 68% of the poor population are benefiting from this service (where poor is defined as a household earning less than R 800 a month).⁴⁸

Furthermore, there are currently 14.3 million with no access to basic sanitation facilities.⁴⁹ Between 2006 and 2007, 940 000 people received access to basic sanitation facilities. This figure excludes beneficiaries from the housing and bucket eradication programme, which saw the removal of 71,747 buckets within the same period.⁵⁰ The free basic sanitation programme has not started and Free Basic Sanitation policy is still in the process of being approved.⁵¹

Whilst the overall rate of delivery seems to have improved compared to previous years, there are serious challenges ahead at all levels if the sector is to achieve its water and sanitation targets.

2. Adoption of and efforts to implement the right

The 1996 constitution embraces human rights principles and contains a bill of rights which sets forth the right of access to water as part of a lengthy list of social and economic rights.⁵² Section 27(1)b of the constitution reads as follows: “Everyone has the right to have access to...sufficient...water...”. The state is obliged to take reasonable legislative and other measures, within its available resources to achieve the progressive realisation of this right.⁵³ The constitution binds all three levels of government to realise the right of access to water, the content of which relates both to allowing for physical and economic access. It does not provide for the right of individuals to access water but rather places an obligation on the government to take reasonable action to give effect to the general rights of the population.⁵⁴

The principal legal instrument on water resource management is the NWA. It established a comprehensive agenda for water resource management based on several guiding principles that aim to remedy past inequalities in water distribution and advance the realisation of the right of access to water. It recognises the need for integrated water resources management and delegation of functions so as to ‘enable everyone to participate’. The preamble recognises that “while water is a natural resource that belongs to all people, the discriminatory laws and practices of the past have prevented equal access to water, and use of water resources” and that the “ultimate aim of water resource management is to achieve the sustainable use of water for the benefit of all users.” The purpose of the act “is to ensure that the nation’s water resources are protected, used,

⁴⁴ Marna De Lange, *Water Law and Human Rights-Roles and Responsibilities*, 43(4) *WATER SCIENCE & TECHNOLOGY* 143 (2001).

⁴⁵ Department of Water Affairs and Forestry, *Annual Report 2006-2007*, p. 58.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*, p. 67.

⁴⁹ *Ibid.*, p. 59.

⁵⁰ *Ibid.*

⁵¹ Department of Water Affairs and Forestry, *Annual Report 2005-2006*, p 44.

⁵² Alix Gowlland-Gualtieri, “South Africa’s Water Law and Policy Framework” IELRC Working Paper 2007-03, p.1.

⁵³ 1996 Constitution, sec. 27(2).

⁵⁴ Gowlland-Gualtieri, (see note 52 above), p. 2.

developed, conserved, managed and controlled in ways which take into account amongst other factors- meeting the basic human needs of present and future generations, promoting equitable access to water, redressing the results of past racial and gender discrimination, promoting the efficient, sustainable and beneficial use of water in the public interest”.⁵⁵ Importantly, the act creates the ‘Reserve’ which is intended to fulfil the right of access to water guaranteed in the constitution. The Reserve is made up of a basic human needs reserve which ‘provides for the essential needs of individuals served by the water resource in question and includes water for drinking, for food preparation and for personal hygiene’ and also an ecological reserve, which ‘relates to the water required to protect the aquatic ecosystems of the water resource.’⁵⁶ This is the sole right to water found in the act and it has priority over all other water uses. The NWA dissociates water rights and land ownership. It substitutes the previous riparian system of allocation, which linked water rights to land ownership, with a compulsory licensing system to accomplish a more equitable redistribution of water in the population.⁵⁷

The WSA provides for accessibility of water by domestic users. It recognises in its preamble ‘the right of access to basic water supply and basic sanitation necessary to ensure sufficient water and an environment not harmful to health or well being.’ It acknowledges that although municipalities have authority to administer water supply and sanitation services, all levels of government have a duty, within the limits of physical and financial feasibility, to work towards this objective. Crucially, section five of the act provides that if the water services provided by water services institutions fail to meet the needs of all their customers, then they must give preference to the provision of basic water supply and basic sanitation. In cases of emergency basic water supply and sanitation services must be provided, even at the cost of the water services authority.⁵⁸

Complementing these two key laws are several policies on water and sanitation. In 2001, a Government White Paper on basic household sanitation specifically focused on the provision of a level of basic household sanitation to mainly rural communities and informal settlements, which it identified as the areas with the greatest needs. The Free Basic Water Implementation Strategy 2002 targets the water needs of the most impoverished citizens by aiming to guarantee households a free minimum quantity of potable water, currently set at 6 kilolitres per household per month. The 2003 Strategic Framework for Water Services replaces the Water Supply and Sanitation White Paper 1994. It sets out the national framework for the water services sector (water supply and sanitation) and is the umbrella framework for the water services sector which seeks to align policies, legislation and strategies within the water sector. Most recently, the draft Regulatory Strategy for the water and sanitation sector has outlined how the government intends to achieve effective regulation of the sector in order to fulfil its constitutional obligations.

2.1 Institutional framework

The 1996 constitution established national, provincial and local spheres of government which are distinctive, interdependent and interrelated.⁵⁹ These spheres of government are obliged to cooperate with each other by among others, informing and consulting each other on matters of common interest and coordinating their actions and legislations.⁶⁰ Both national and provincial parliaments have concurrent law-making competence on matters such as water and sanitation

⁵⁵ Section 2, NWA.

⁵⁶ Chapter 3, part 3 NWA.

⁵⁷ Chapter 4, part 1 NWA.

⁵⁸ Section 11(5) WSA.

⁵⁹ Section 40(1) 1996 Constitution.

⁶⁰ Section 41(1)(h) 1996 Constitution.

services, limited to potable water supply systems and domestic wastewater and sewage disposal systems.⁶¹ Additionally, provincial legislatures can exclusively make laws on matters such as refuse removal, refuse dumps and solid waste removal.⁶² Importantly, the national parliament maintains some level of oversight even in areas of exclusive provincial competence. It may for instance pass intervening legislation with regard to matters listed in schedule when it is necessary to establish minimum standards required for the rendering of services.⁶³ Local governments are expected to ensure, within their financial and administrative capacity, the provision of services to communities in a sustainable manner.⁶⁴

The national government is constituted the public trustee of the nation's water resources.⁶⁵ Through the Minister of Water Affairs and Forestry (the Minister), it must ensure that water is protected, used, developed, conserved managed and controlled in a sustainable and equitable manner, for the benefit of all persons and in accordance with its constitutional mandate.⁶⁶ It also has the power to regulate the use, flow and control of all water in the Republic.⁶⁷ The Department of Water Affairs and Forestry (DWAF) is the custodian of South Africa's water and forestry resources. It is the national agency primarily responsible for formulating and implementing policy governing these two sectors and has certain regulatory responsibilities for water and sanitation services provided by local governments.⁶⁸

The WSA provides for the establishment of water boards and water services committees as well as a regulatory framework for water services institutions, authorities and intermediaries. A water services authority has a duty to all consumers or potential consumers in its area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to water services.⁶⁹ The powers, functions and limitations of water services authorities are stipulated in Chapter III of the WSA. A water services authority may require the registration of water services intermediaries within its sphere of influence.⁷⁰ Water services intermediaries must provide water services that meet any minimum standards prescribed by the Minister or the relevant water services authority in terms of quality, quantity and sustainability.⁷¹ The registration, functioning and monitoring of water services intermediaries (i.e. water service providers) is governed by Chapter V of the WSA. Water boards are bodies corporate and have the powers of natural persons of full capacity. In addition to their primary activity of providing bulk water to water services authorities, water boards may set and enforce general conditions, including tariffs, for the direct provision of water services.⁷² A full listing of the duties, powers and limitations of water boards is contained in Chapter VI of the WSA. The Minister may, after consultation with the inhabitants of a proposed service area and the water services authority for that area, establish a water services committee. The committee's function is to provide water services to consumers within its service area if the water services authority for that area is unable to provide effective services.⁷³ A water services committee may set conditions, including tariffs for the provision of water services and may limit or discontinue water services to a consumer.⁷⁴ Chapter VII of the WSA governs the operations of water services committees.

⁶¹ Schedule 4 1996 Constitution.

⁶² Schedule 5 1996 Constitution.

⁶³ Section 44(2)(d) 1996 Constitution.

⁶⁴ Section 152(1)&(2) 1996 Constitution.

⁶⁵ Section 3(1) NWA.

⁶⁶ Ibid.

⁶⁷ Section 3(3) NWA

⁶⁸ These specific responsibilities are discussed under sections 2.2 to 2.7.

⁶⁹ Section 11(1) WSA.

⁷⁰ Section 24 WSA.

⁷¹ Section 25 WSA.

⁷² Section 31(1) & (2) WSA.

⁷³ Sections 51(3) & 52(1) WSA.

⁷⁴ Section 53 WSA.

The recent Draft Strategy for Water Services Regulation⁷⁵ sets out the role of DWAF in the effective regulation of the water and sanitation sector. The strategy includes immediate as well as medium and long term objectives regarding regulation in order to protect the interests of consumers and the public in general.

In order for local governments to fulfil their obligations, they receive funding from national government for the implementation of certain policies. The “Equitable Share” is allocated to each municipality on the basis of the number of residents receiving Free Basic Water. This is designed to enable local government to provide FBW and thereby discharge their duty under the WSA to provide affordable water for all residents in their jurisdiction. Further funding is provided to local government through the Municipal Infrastructure Grant (MIG) to enable municipalities to extend basic services, including water and sanitation, to all residents.

2.2 Non-discrimination and attention to vulnerable and marginalised groups

The 1996 constitution stipulates that everyone is equal before the law and has the right to equal protection and benefit of the law.⁷⁶ Equality, according to the constitution includes ‘full and equal enjoyment of all rights (right of access to water inclusive) and freedoms. It also stipulates that the state may not unfairly discriminate directly or indirectly against anyone on grounds of race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth.’⁷⁷ To promote the achievement of equality, the state may take legislative and other measures designed to protect or advance persons or classes of persons disadvantaged by unfair discrimination.⁷⁸

The preamble to the NWA recognises that while water is a natural resource that belongs to all persons, the discriminatory laws and practices of the past have prevented equal access to water and use of water resources. It acknowledges that national government has the overall responsibility to equitably allocate and redistribute water.⁷⁹

According to the Free Basic Water (FBW) Implementation Strategy 2002, although there is a broader policy commitment to the extension of free basic services to all households, the primary target of the policy is poor households for whom free basic services represent a significant poverty alleviation measure.⁸⁰ The Strategic Framework for Water Services 2003 stipulates that ‘lack of access to water supply and sanitation constrains opportunities to escape poverty and exacerbates the problems of vulnerable groups, especially those affected by HIV/Aids and other diseases. It is therefore appropriate that a key focus of South Africa’s water services policy should be on ensuring access of the poor to adequate, affordable and sustainable levels of defined basic water supply and sanitation services...’. However, there have been problems in targeting those households most in need and in some cases it appears that attempts to provide low-cost water supplies in poor areas has in fact resulted in restricting people’s access to sufficient water.⁸¹

In 2001, within the context of the right to housing, but of relevance to the right of access to water, the Constitutional Court of South Africa, in reviewing the failure of a particular housing programme to assist a group of people evicted from their homes, opined in the *Grootboom* case

⁷⁵ DWAF National Water Services Regulation Strategy Final Draft, January 2008.

⁷⁶ Section 9(1) 1996 Constitution.

⁷⁷ Section 9(3) 1996 Constitution.

⁷⁸ Section 9(2) 1996 Constitution.

⁷⁹ See also section 3(1) NWA.

⁸⁰ Free Basic Water Implementation Strategy 2002, p. 7.

⁸¹ Phiri Case 2008

that measures aimed at achieving socio-economic rights must provide for those whose needs are most immediate and whose capacity to enjoy such rights are seriously threatened.⁸²

2.3 Participation and access to information

The WSA requires a water services authority to take reasonable steps to bring its draft water services development plan to the notice of its consumers, potential consumers, industrial users and water services institutions within its area of jurisdiction and to invite public comment to be submitted within a reasonable time.⁸³ An authority must consider all comments received by it before adopting a development plan and, on request, report on the extent to which a specific comment has been taken into account or, if a comment was not taken into account, provide justification for not doing so.⁸⁴

Each water services authority must report on the implementation of its development plan during each financial year and publicise a summary of its report.⁸⁵ The Minister is required to establish a national information system on water services that provides information in an accessible format, to which the public is entitled to reasonable access.⁸⁶ The NWA also includes a number of provisions for the sufficient representation of traditionally marginalised groups.⁸⁷ Both the WSA and NWA give effect to the right of access to information guaranteed in the 1996 constitution.⁸⁸

DWAF has a number of tools, detailed in their Generic Public Participation Guidelines,⁸⁹ for water service authorities to use to ensure adequate participation in planning of water and sanitation services. However, the use of these tools is not as widespread as it could be due to the limited human and financial resources available to local government. Furthermore, true participation is time-consuming and, even at national level, participation is constrained by time pressures on government to achieve its own targets. DWAF have recognised problems in this regard and have included a section on “strengthening consumer voice” in their Draft Strategy for Water Services Regulation.⁹⁰

2.4 Water availability and allocation

The NWA requires the Minister and other responsible authorities to ensure that water is managed and used in an equitable and sustainable manner for the benefit of all persons.⁹¹ In implementing a statutory duty to classify each water resource, the Minister is required to determine a ‘reserve’ for all or part of any significant water resource.⁹² The reserve must be provided for in the national water resource strategy.⁹³ All public authorities are required to give effect to the reserve when acting under the NWA.⁹⁴ The act sets out exceptions with regard to

⁸² *Government of the Republic of South Africa and others v. Grootboom and others*, 2001 (1) SA 46 (CC), South African Constitutional Court, paras 43-44.

⁸³ Section 14 WSA.

⁸⁴ Section 15 (1-2) WSA.

⁸⁵ Section 18 (1-3) WSA.

⁸⁶ Section 67 WSA.

⁸⁷ Section 14 NWA.

⁸⁸ Section 32 1996 Constitution.

⁸⁹ DWAF Generic Public Participation Guidelines, September 2001, available at www.dwaf.gov.za

⁹⁰ Draft Strategy for Water Services Regulation, see note 75 above

⁹¹ Section 3(1) NWA.

⁹² Section 16 (1) NWA.

⁹³ Section 6 (1) NWA.

⁹⁴ Section 18 NWA.

the use of water for essential uses without a licence. It permits people to take water for reasonable domestic use in that person's household, directly from any water resource to which that person has lawful access.⁹⁵ Any person may store and use run-off water from a roof and, in emergency situations, take water from any water resource for human consumption or fire-fighting.⁹⁶

Water services authorities have a duty to provide a “basic water supply” of at least 25 litres of potable water per person per day,⁹⁷ but are free to decide how to implement this provision. A number of problems have consequently arisen. Firstly there still disagreement as to the sufficiency of this quantity of water, particularly for certain vulnerable groups such as those who are HIV positive.⁹⁸ Secondly, water service providers have struggled to find effective ways of ensuring that all residents are provided with this minimum supply. For example, the widely used guideline of 6 kilolitres per household per month assumes a household of eight persons or less; if a household is larger, then on average each member will receive less than the prescribed minimum.⁹⁹

Regulations under the WSA impose duties upon water services institutions to conserve water, in particular, to fit a device to measure or control water volume to all user connections,¹⁰⁰ to determine the quantity of unaccounted for water,¹⁰¹ and to repair all major, visible or reported leaks within 48 hours of becoming aware of them.¹⁰² The regulations further stipulate that where services are interrupted for more than 24 hours for reasons other than the user's non-compliance with conditions of service, a water service institution must ensure that a consumer has access to alternative water service comprising at least 10 litres of potable water per person per day.¹⁰³

2.5 Water quality and hygiene

The WSA empowers the Minister to set compulsory national standards relating to the provision of water services.¹⁰⁴ Regulations under the Act require that water service authorities operate a suitable programme to sample the quality of potable water provided to consumers.¹⁰⁵ Where test results do not conform to the South African Water Quality Guidelines or the South African Bureau of Standards Specifications for Drinking Water,¹⁰⁶ the water service institution must take steps to inform its consumers: that the quality of the water poses a health risk; the reasons for the health risk; precautions to be taken by the consumers; and the time frame, if any, within which it may be expected that water of a safe quality will be provided.¹⁰⁷

⁹⁵ Schedule 1, section 1 (a) NWA.

⁹⁶ Schedule 1, section 1 (c-d) NWA.

⁹⁷ WSA Regulations s.3

⁹⁸ Phiri case 2008

⁹⁹ Ibid

¹⁰⁰ Regulations relating to compulsory national standards, section 13 (1).

¹⁰¹ Ibid, section 11 (1) (b).

¹⁰² Ibid, section 12.

¹⁰³ Regulations (see note 100 above), section 4.

¹⁰⁴ Section 9 (1) (a) WSA.

¹⁰⁵ Regulations (see note 100 above), section 5.1.

¹⁰⁶ Ibid, section. 5.3. See Department of Water Affairs and Forestry, 1996, South African Water Quality Guidelines, (second edition). Volume 1 (Domestic Use), available at: http://www.dwaf.gov.za/IWQS/wq_guide/. This document indicates, at p. 8., that the Guidelines were prepared based on published sources, input of South African water quality and water treatment experts, with international documents, such as the World Health Organization Guidelines for Drinking Water Quality, used as background material. The South African Bureau of Standards is the official standard setting body in South Africa, see <http://www.stansa.co.za/>.

¹⁰⁷ Ibid, section 5.4.

The WSA requires that no person may dispose of industrial effluent without approval from the requisite authority.¹⁰⁸ The act also empowers the Minister to set compulsory national standards relating to the quality of water discharged into any water services or water resource system.¹⁰⁹ The Regulations also address responsibilities of water services institutions to carry out measures to prevent entry of objectionable substances into drains and watercourses.¹¹⁰ The Strategic Framework for Water Services 2003 (SFWS) directs all water services authorities to identify and implement programmes for the eradication of all bucket systems by 2006 as the bucket system is an unsuitable and inappropriate level of service.¹¹¹

One key target of the SFWS is for 'hygiene education and the wise use of water' to be taught in all schools by 2005.¹¹² It also acknowledges that the effectiveness of water and sanitation services in promoting healthy and sustainable livelihoods is dependent on effective health and gender-sensitive hygiene education. To this end, it specifies that district municipalities are primarily responsible for health and hygiene education in relation to water and sanitation services.

Despite the development of a comprehensive Drinking Water Quality Framework,¹¹³ and accompanying guidelines for water services authorities on managing drinking water quality and supporting strategies, local government has struggled to implement the necessary measures. Following recent surveys of drinking water quality management and wastewater treatment operations, water and effluent quality are key concerns for DWAF, due to the significant risks these pose to public health.¹¹⁴ These concerns have led to the development of three priority programmes within the Draft Strategy for Water Services Regulation:

1. Concentrated regulatory efforts to address compliance and performance problems in priority municipalities, particularly where risks pose serious threats to health and the environment;
2. A national drinking water quality regulatory initiative, to manage the potentially serious risks associated with unsafe drinking water; and
3. A national wastewater discharge regulation initiative to manage potentially serious risks related to health and the environment.¹¹⁵

2.6 Physical accessibility of water and sanitation

The WSA recognises the right of access to basic water supply and basic sanitation necessary to ensure sufficient water and an environment not harmful to health or well-being.¹¹⁶ Water services institutions must take reasonable steps to realise these rights and water services authorities are obliged to provide for measures to realise these rights in their water services development plan.¹¹⁷ The development plan must indicate those to whom water and sanitation services cannot currently be provided and the time frame within which such persons may reasonably be expected to enjoy such services.¹¹⁸ 'Basic water supply' is defined as "the prescribed minimum standard of water supply services necessary for the reliable supply of a sufficient quantity and quality of water

¹⁰⁸ Section 7 (2) WSA.

¹⁰⁹ Section 9 (1) WSA.

¹¹⁰ Regulations (see note 100 above), section 6.

¹¹¹ Strategic Framework for Water Services 2003, pg 47, section 6.3.4.

¹¹² Ibid, pg. 6.

¹¹³ A Drinking Water Quality Management Framework for South Africa, December 2005

¹¹⁴ Draft Strategy for Water Services Regulation, pp 12-13.

¹¹⁵ Ibid p. xii.

¹¹⁶ Preamble to the WSA.

¹¹⁷ Section 3 WSA.

¹¹⁸ Section 13 WSA.

to households, including informal households, to support life and personal hygiene; ...”¹¹⁹ Regulations issued in 2001 set the minimum standard for basic water supply services at 25 litres per person per day, with a flow rate of not less than 10 litres per minute, within 200 metres of a household, with an effectiveness such that no consumer is without a supply for more than seven full days in any year.¹²⁰

The government plans to reach the target of universal access to a basic water supply, as set out in the regulations, by 2008.¹²¹ The WSA also states: “If the water services provided by a water services institution are unable to meet the requirements of all its existing consumers, it must give preference to the provision of basic water supply and basic sanitation to them.”¹²² The White Paper on Basic Household Sanitation 2001 has set a target of March 2010 for everyone to have access to a basic minimum level of sanitation and in February 2006, the President of South Africa set a target of end 2007 for the complete eradication of bucket toilets.

2.7 Affordability of water and sanitation

In terms of the 2002 Free Basic Water policy, the provision of the basic quantity of water consumed by poor households is to be free of charge. Water services authorities must implement this policy with immediate effect and if they are unable to implement this policy immediately, they must proffer reasons to DWAF and provide a plan for implementing the policy.¹²³ However, the policy allows water services authorities to decide how they will apply the policy specifically and practically, and therefore quantity of 6 kilolitres per household per month is only a guideline. In its 2006-7 Annual Report DWAF stated that 74% of the South African population enjoy access to free basic water.¹²⁴

At the time of writing, the free basic sanitation policy has not been implemented and the Free Basic Sanitation Policy is yet to be approved. However, it is envisaged that the purpose of such a policy would be to assist in promoting affordable access by poor households to at least a basic level of sanitation services. The key challenge to providing free basic sanitation is not only the provision of the sanitation facility itself to poor households, but also the necessary supporting infrastructure. If the basic service is to be provided free to the poor, it is envisioned that the cost be covered by the Equitable Share or through cross-subsidies within the water services authority area, or a combination of both.¹²⁵

The WSA gives the Minister the power, with the concurrence of the Minister of Finance, to set norms and standards for tariffs that may differentiate on an equitable basis between different users of water services, different types of water services, and different geographic areas, taking into account, among other factors, the socio-economic and physical attributes of each area. The Minister may place limitations on surplus or profit and on the use of income generated by the recovery of charges, as well as provide for tariffs to be used to promote water conservation.¹²⁶

¹¹⁹ Section 1(iii) WSA.

¹²⁰ Regulations (see note 100 above), section. 3, available at: <http://www.dwaf.gov.za/Documents>.

¹²¹ Policy Review Debate of the National Council of Provinces (NCOP), Speech by Ms BP Sonjica, MP, Minister of Water Affairs and Forestry, NCOP, Parliament, 31 May 2005, available at: <http://www.dwaf.gov.za/Communications/MinisterSpeeches>. The government also has a target to ensure sanitation for the 16 million people without adequate sanitation by 2010.

¹²² Section 5 WSA.

¹²³ Framework (see note 111 above), p 29.

¹²⁴ Annual Report 2006-2007 (2 above), p. 67.

¹²⁵ Framework (see note 111 above), p 30.

¹²⁶ Section 10 (1-2) WSA.

The Minister is required, in setting these standards to consider, among other imperatives, social equity, the financial sustainability of the water services and the recovery of reasonable costs.¹²⁷

It is, however, up to the water services institutions to set the tariffs. Regulations set out by the Government in 2001 on water tariffs provides that a water services institution must consider the right of access to basic water supply and the right of access to basic sanitation when determining which water services tariffs are to be subsidised.¹²⁸ When setting tariffs, water services institutions must differentiate between both the category and the level of services provided. The regulations also set out specifications for rising block tariffs schemes that would be deemed to comply with the requirements of the regulations.¹²⁹ In the SFWS water services authorities are required to implement pro-poor tariffs with a view to ensuring that water supply and sanitation services are affordable to all. According to the Draft Strategy for Water Services Regulation, DWAF is not empowered to set or approve tariffs, as this is the role of the water services authority. As national regulator, DWAF “may review tariffs to ensure compliance with the national norms and standards”¹³⁰ but has no power to approve tariffs.

The WSA also includes procedural and substantive protections against disconnections. It stipulates that procedures for disconnection or limitation of water services must be fair, provide for reasonable notice of intention to disconnect or limit services and an opportunity for the consumer to make representations and must not result in a denial of access to basic water services for non-payment, where the consumer proves that he or she is unable to pay for basic services.¹³¹ Courts in South Africa have not been consistent on this issue. In the *Manquele* case, the Durban High Court did not grant a declaratory order that discontinuation of basic water services was unlawful,¹³² but the High Court of the Witwatersrand Local Division in *Bon Vista Mansions* granted interim relief ordering a local authority to restore water supply pending the final determination of legal proceedings.¹³³ Also, in the *Highbeldridge* case, the Transvaal Provincial Division ordered the reconnection of water supply pending final determination of the matter.¹³⁴

It has been estimated that there have been significant numbers of disconnections due to non-payment.¹³⁵ Municipalities are permitted under section 102 of the *Municipal Systems Act* to combine water and electricity bills for purposes of enforcing payment. Arrears in accounts on one service can result in a disconnection of the other service.¹³⁶ Such disconnections have occurred in spite of the position of the national Department of Water Affairs and Forestry (DWAF) that municipalities should refrain from complete disconnections from water services

¹²⁷ Section 10 (3) WSA.

¹²⁸ *Norms and Standards in Respect of Tariffs for Water Services in terms of Section 10(1) of the Water Services Act (Act No. 108 of 1997)*, section 3(2), available at: <http://www.dwaf.gov.za/Documents/Default.asp?Notices>.

¹²⁹ *Ibid*, section 6.

¹³⁰ Draft Strategy for Water Services Regulation p. 75

¹³¹ Section 4 (3) WSA. These provisions are also supplemented by a Constitutional provision on the right of everyone to administrative action that is lawful, reasonable and procedurally fair as well as the contents of the *Promotion of Administrative Justice Act* (Act 3 of 2000). The latter Act supplements the Water Services Act by requiring adequate notice of any right to review or international appeal, and adequate notice of the right to request reasons for the action.

¹³² *Manquele v. Durban Transitional Metropolitan Council* (2002) (6) SA 423 (D). At the time however, the regulations prescribing ‘basic water supply’ were not in existence.

¹³³ *Residents of Bon Vista Mansions v. Southern Metropolitan Local Council*, High Court of South Africa (Witwatersrand Local Division), Case No: 01/12312, 2001

¹³⁴ *Highbeldridge Residents Concerned Party v. Highbeldridge Transitional Local Council and Others*, Transvaal Provincial Division, Case No. 28521/2001, 17 May 2002, para. 24.

¹³⁵ Letter by Dr. F. M. Orkin, CEO of the Human Sciences Research Council to Mike Mueller, Director General of the South African Department of Water Affairs and Forestry, 21 May 2003. The actual number of disconnections has been the subject of extensive debate.

¹³⁶ Jaap de Visser, Edward Cottle & Johann Mettler, “Realising the Right of Access to Water: Pipe dream or watershed? 7 (1) (2003) *Law, Democracy and Development*, pg. 48.

and that even where consumers defy payment orders, water supply should be reduced to a ‘trickle supply’ to provide the free basic amount rather than being discontinued.¹³⁷

3. Lessons learnt

There is no doubt that South Africa has made considerable progress in implementing the right to water and sanitation; indeed the country has been at the forefront of such efforts. The South African government has introduced ambitious and innovative measures in an effort to realise the rights it enshrined in its 1996 constitution. These efforts, however, have not been without their problems, or the government without its detractors. The South African experience provides plenty of lessons regarding the problems and pitfalls, as well as the strengths and advantages of implementing the right to water and sanitation.

It is clear from discussions with those working in the sector¹³⁸ and from DWAF’s own publications¹³⁹ that one of the greatest challenges facing the government in implementing the right to water and sanitation is that of capacity constraints. Although much has been achieved at national level in terms of law and policy, some municipalities have struggled to implement the required measures. Their capacity to implement these measures is constrained not only by limited financial resources, but also by the shortage of technical and financial expertise. Under law, it is the local government (municipalities) that are responsible for realisation of the right to water and sanitation¹⁴⁰ and although a support mechanism has been established through the Department of Provincial and Local Government, this does not appear to be providing sufficient support for municipalities to fulfil their role.

One of the key aspects of the right to water and sanitation is the emphasis it places on non-discrimination and attention to vulnerable and marginalised people. Although a strong focus of DWAF’s policy is to extend water and sanitation services to all, the implementation of this policy has, at times, had the unintended result of causing discrimination in the delivery of services. In particular, the case of residents in Phiri, Soweto who claim to have been denied access to sufficient, affordable water due to the installation of pre-paid meters.

Another problem that DWAF is struggling with is in developing a practicable approach to ensuring that the specific water and sanitation needs of the vulnerable, such as those who are HIV positive, are adequately met. Although there are HIV/AIDS and Gender policies which are being “mainstreamed” in DWAF, it is unclear how this affects those in the community.

The adoption of the right to water and sanitation in law and policy, as well as the wider freedom of information requirements, has forced government agencies to increase and improve data collection and publication. This has had a positive effect on the ongoing development of law and policy in the sector.¹⁴¹

Furthermore, provisions have been made for participatory processes. Real and enforceable obligations exist on the part of service providers to take into account the views of members of the public in the formulation and implementation of plans or policies that may affect the exercise of their right of access to water and sanitation. However, the extent of public participation is strongly dependent on the capacity of municipality, and the ambitious targets for the extension of

¹³⁷ ‘Joburg Council Defies Free-Water Law’ Saturday Star, 6 February 2004, <http://www.iol.co.za/>

¹³⁸ Authors discussions with representatives from Mvula Trust, DWAF, and Ethekwini and Msunduzi municipalities.

¹³⁹ Such as the recent Draft Strategy for Water Services Regulation.

¹⁴⁰ Section 11(1) WSA

¹⁴¹ For example, the Draft Strategy for Water Services Regulation is based on evidence gathered regarding the current performance of the sector.

services has further diminished the ability of local government to ensure adequate participation in the planning and implementation of service extensions. Water committees, designed to provide community input into decision-making, have now been linked to local government councils, thereby politicising the process. These shortcomings have been identified and have led to the development of a component in the Draft Strategy for Water Services Regulation aimed at “strengthening consumer voice.”¹⁴²

Water services authorities have faced considerable problems in fulfilling their duty to provide a “basic water supply” of at least 25 litres of potable water per person per day.¹⁴³ Although simple on paper the practicalities of ensuring provision of a minimum amount to everyone is far more complex. The guideline amount of 6 kilolitres per household per month is a reasonable estimation, but where households are larger than eight persons this estimation is insufficient. The situation is compounded when the use of pre-paid meters effectively disconnect such households immediately upon reaching this quantity. Clearly, if communities were able to participate effectively in the planning of water services, such problems could be avoided and alternative solutions developed.

A major problem that has been identified by DWAF in its recent Draft Strategy for Water Services Regulation is that of water quality. While local government has focussed strongly on the extension of services, less attention has been paid to the operation and maintenance of existing water and wastewater treatment plants. This has led to contamination of the water supply resulting in outbreaks of disease and even death.¹⁴⁴ DWAF are planning to improve monitoring and regulation of this area, but without addressing capacity constraints in municipalities it is unlikely to solve the problem. Another factor in safeguarding public health is hygiene awareness and education. Once again, although there is a policy for including hygiene interventions in sector programmes, the reality is that there are neither the financial nor human resources at local government level to implement these.

The government has committed to ambitious targets for the extension of water and sanitation services: universal access to basic water supply by 2008,¹⁴⁵ and universal access to a basic minimum level of sanitation by March 2010.¹⁴⁶ However, in the recent Draft Strategy for Water Services Regulation DWAF has admitted that there have been difficulties in meeting these targets. The strategy cites two factors contributing to the lack of progress:

“the inadequacy of the funds made available to water services authorities to eradicate the backlog, and constraints experienced by water services authorities and providers (such as capacity constraints) which result in the available funds not being fully or effectively spent.”¹⁴⁷

As is often the case in the sector, the extension of sanitation services is far behind compared with the extension of water services in South Africa. Although both water and sanitation were addressed in the WSA, the development of policies regarding sanitation has been slow.

The Free Basic Water (FBW) Policy has been a key milestone in South Africa’s efforts to provide water for all; indeed within South Africa it has become almost synonymous with the concept of the right to water. Although the policy itself is sound, its implementation has been fraught with difficulties. As mentioned above with regard to the quantity of water provided, the FBW policy has frequently relied on the assumption of households comprising eight persons or less. This in

¹⁴² Draft Strategy for Water Services Regulation.

¹⁴³ WSA s.3.

¹⁴⁴ Draft Strategy for Water Services Regulation p.2.

¹⁴⁵ Policy Review Debate, (see note 121 above).

¹⁴⁶ Paper on Basic Household Sanitation 2001.

¹⁴⁷ Draft Strategy for Water Services Regulation.

theory should not be a problem if a poor household is able to show that it cannot afford to pay, but in reality may lead to unreasonable restrictions.

Municipalities have also struggled in targeting the right households for provision of FBW. It is common for municipalities to rely on the Indigent Register to determine a household's eligibility for FBW. However, the Indigent Register accounts for only a fraction of poor households – for example, the City of Johannesburg has approximately 40,000 households on the Indigent Register, in comparison to an estimated 400,000 households classified as poor in the census.

The policy for Free Basic Sanitation (FBS) has been pending approval for some time and only a very few municipalities have begun to implement this. Ethekewini municipality provide FBS through two mechanisms; for waterborne sewerage an additional allowance is given over the FBW quantity; for on-site sanitation there is a subsidy scheme for construction sanitation and collection of waste. There has been little attention given intermediate levels of provision, such as septic tanks rather than VIP latrines or waterborne sewerage, which may limit peoples choices unnecessarily.

CASE STUDY D: SRI LANKA

Introduction

The Government of Sri Lanka (GOSL) has identified the provision of access to safe drinking water and sanitation facilities as one of its main priorities, in keeping with targets of the Millennium Development Goals. It aims to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.¹⁴⁸

The National Water Supply and Drainage Board (NWSDB), the main line agency for the supply of domestic and industrial water and sanitation services, has set its own targets for the supply of 'safe water',¹⁴⁹ to reach 85% of the population by 2010 and 100% of the population by the year 2025. The national target for access to improved sanitation is 93% of the population by 2015.¹⁵⁰

At the time of independence from the British in 1948, piped water supply was available only to a small segment of the population in urban areas, and the main sources of drinking water for the majority of the population were unprotected wells, rivers, traditional tanks¹⁵¹ and canals. The declaration of the International Drinking Water Supply and Sanitation Decade in 1980 saw an increased attention to water and sanitation services in the country. A national plan was formulated to achieve 100% coverage of the urban population and the plantation estate sector, and 50% of the rural population.¹⁵²

There has been substantial progress in the water and sanitation sector since these targets were established, with a significant improvement in the coverage of water and sanitation in urban areas in Sri Lanka. However, in view of rapid urbanisation and the rapid increase in population density in urban areas, the challenges for urban water and sanitation are immense. The estimated annual growth rate in the urban population is 3% (compared to an overall national growth rate of 1.2% annually), and it is projected that more than half the country's population will live in urban areas by 2016.¹⁵³ Urban population concentration is highest in the Western Province where the capital, Colombo, is situated. Sri Lanka has made remarkable progress in meeting the challenges of urban water supply in the last decade and demonstrates an ongoing commitment in meeting future challenges, goals and targets.

1. Country background

Sri Lanka, an island state South of India comprising a land area of 65 525 square kilometres, is rich in water resources, with an average annual rainfall of 2 000 mm. However, the pattern of rainfall is seasonal and is unevenly distributed geographically, resulting in water scarcity in certain regions. The highest amount of state investment since independence in 1948 has been on the

¹⁴⁸ Millennium Development Goals Country Report – Sri Lanka, (2005), National Council for Economic Development (NCED) of Sri Lanka and the United Nations Development Agency (UNDP), pg. 84

¹⁴⁹ Safe water: the term used by the NWSDB to refer to a water source that are considered safe according to prevalent WHO and Sri Lanka Standards (SLS) guidelines.

¹⁵⁰ Supra note 1 MDG Report,

¹⁵¹ Village tank (or small tank) systems were constructed in ancient times, mostly during the medieval period, for the storage of surface water in the dry zone, and were the centres of village settlements.

¹⁵² The population of the plantation estate sector and the rural sector comprise 1 million and 14.5 million persons respectively, as per the Household Income and Expenditure Survey, 2006/2007, Department of Census and Statistics

¹⁵³ Department of National Planning (2006), *Mahinda Chinthana: Vision for a new Sri Lanka – A Ten Year Horizon Development Framework 2006 – 2016 (Discussion Paper)*, Ministry of Finance and Planning, pg. 114

development of water resources for irrigation, hydropower generation and domestic and industrial water supply.¹⁵⁴

Approximately 30% of Sri Lanka's 20 million inhabitants live in urban areas.¹⁵⁵ The criteria used by the NWSDB to demarcate urban and rural areas for the supply of 'safe water', are the number of piped water connections in a particular area. An area with over 1000 connections serving an average of 6000 individuals is deemed 'urban', and those areas without as many connections are 'rural'.¹⁵⁶ Urban areas are further divided into 'small townships' with 1000 - 2000 connections.¹⁵⁷ The national policy on urban water supply defines urban areas to include the greater Colombo area, urban and municipal council administrative areas, newly designated areas by the Ministry of National Planning, and areas where the adopted technology is complex.¹⁵⁸

According to a census taken in 2001, 82% of the population in Sri Lanka has access to safe drinking water, with 96% coverage in urban areas, 81% in rural and 61% in the plantation estate sector.¹⁵⁹ The figures for access to sanitation are 78% in urban areas, 67% in rural areas and 43% in the plantation estate sector. There has been a marked improvement in access to sanitation over the last three decades with coverage increasing from 21% to 67% nationally. According to 2004 statistics from UNICEF 98% of the urban population, compared to 79% in rural areas, used both improved water sources and improved sanitation facilities.¹⁶⁰ Most urban areas outside of the Colombo municipal council and the greater Colombo area do not have sewerage systems, and sanitation is in the form of household pit latrines. The existing sewerage system in Colombo currently has 37 174 connections. Funded projects are underway for the construction of sewerage systems in Kandy and Nuwera Eliya.¹⁶¹

However, according to the NWSDB's criteria for 'safe water', coverage for water supply is only 77% nationally, lower than the census figure of 82% given above.¹⁶² This 'safe water' coverage figure includes piped water, supplied by the NWSDB, local authorities and other sector agencies; protected dug wells; tube wells; and rain water harvesting. The estimated breakdown of coverage in 2007 is 33% for piped water, 34% for protected shallow wells, 8% for tube wells, and 2.4% for rain water harvesting. Although on average, coverage of piped water supplies has increased by 4.3% since 2003, to 33%¹⁶³ there are wide variations across the country. Coverage is highest in the District of Colombo, with 76% of households supplied by piped water, compared with the District of Killinochchi, where only 0.08% of households have access to piped supplies.

Furthermore, the relatively high figure for the District of Colombo needs to be qualified in view of ongoing policy and programmatic efforts to improve water and sanitation services in urban areas. Piped water supplied by the NWSDB to the greater Colombo area accounts for only 60% of the total population, of which 20% is supplied at stand posts and with only about 30% of the

¹⁵⁴ Arulpragasam K.D. (edits), 2000, *Natural Resources of Sri Lanka*, pg. 75

¹⁵⁵ Supra note 6 The Government of Sri Lanka defines urban areas according to the number of inhabitants relative to the population of the respective province. Further indicators include economic activity, population density and access to services and facilities. See Indrasiri, L.H. (2005), *Urbanisation and Urban Redefinition – Sri Lanka 2005*, p. 3-4.

¹⁵⁶ Interview with the NWSDB – Mr. Christy George

¹⁵⁷ This distinction is made by large donor agencies, such as the Asian Development Bank (ADB)

¹⁵⁸ NWSDB, *Urban Water Supply Policy*, section 2.0; complex technology in this section refers to technology that fall outside the scope of 'conventional methods, such as water treatment and sanitation techniques using sunlight and natural means, and includes the treatment of salt water intrusions into domestic water supply sources.

¹⁵⁹ Supra note 6, pg 82

¹⁶⁰ Statistics Unicef: http://www.unicef.org/infobycountry/sri_lanka_statistics.html

¹⁶¹ NWSDB (2004) *Overview 2004*, pg. 14

¹⁶² NWSDB, *Corporate Plan 2007 – 2011*, section 1,4

¹⁶³ An updated figure for other means of accessing safe water is not available.

total population with a continuous supply of water.¹⁶⁴ In provincial urban areas coverage of piped water ranges between of 5% and 20%, with a service of around 16 hours a day.¹⁶⁵ Access to safe drinking water in the city of Colombo is 99%, with 92% coverage of the greater Colombo and provincial urban areas.¹⁶⁶

Regulation of water is by central, provincial and local levels of government. The 13th amendment to the Constitution¹⁶⁷ of Sri Lanka in 1987 established a decentralised system of government, namely the provincial council system. In this system, certain areas of governance are devolved to the provinces and are governed by the provincial councils. The underlying rationale of this system is to make governance more relevant to the local context and to community needs. The above amendment provides for the devolution or decentralisation of water resources by ‘concurrent list’, which mandates both the central and provincial governments to regulate and administer water resources. The provisions in the concurrent list however, extend to ‘water storage and management, drainage and embankments, flood protection, and planning of water resources; and services provided for inter-provincial land and irrigation schemes...’ Thus, there is no provision that decentralises the function of domestic water and sanitation services per se to the provincial authorities. The regulation of water supply and sanitation services remain very much a centralised service, under the purview of the Ministry of Urban Development and Water Supply. However, because local government administration is a decentralised function, provincial councils have the authority to supervise and administer local authorities and have the power to vest them with additional powers according to the needs of the province. Hence, the administration of water supply and sanitation services, for which local authorities have responsibility, comes within the purview of the provincial councils. Despite the above decentralisation, the NWSDB remains the entity, which provides the bulk of water supply and sanitation services according to the powers vested in it by legislation. Operational functions of the NWSDB, such as maintenance, and consumer billing is carried out in the provinces by administrative sub offices of the NWSDB.

In Sri Lanka, the development of water resources in the past has been predominantly for agricultural uses and water resource allocation across different water uses impacts upon the availability of water for domestic supply. Resolving conflicts over water allocation and conflicts among water agencies are difficult and complex. Attempts in the recent past to formulate a national water resource policy for integrated water resource management and to introduce relevant regulatory and institutional reforms, has been wrought with controversy. The controversy centres on, among other things, the introduction of ‘transferable water entitlements’, which were perceived as being a means to privatising the allocation of water.

2. Adoption of and efforts to implement the right

A number of progressive legislative and institutional reforms have been made for the expansion of water supply and sanitation services in Sri Lanka. Policy positions in the past reflect rights based approaches to overcoming challenges in the domestic water supply and sanitation sectors. Current policy statements make explicit recognition of water and sanitation as an ‘inalienable right’.¹⁶⁸ The approved draft of the ‘national policy on drinking water’¹⁶⁹ aims at developing

¹⁶⁴ Supra note 6, pg. 82

¹⁶⁵ Ibid

¹⁶⁶ Supra note 1 pg. 84

¹⁶⁷ Thirteenth Amendment to the Constitution, Certified on 14th November 1987, Published as Supplement to Part II of the Gazette of the Democratic Socialist Republic of Sri Lanka, November 20, 1987

¹⁶⁸ For instance, the NWSDB (2007) Approved draft of the National Policy on Drinking Water,

¹⁶⁹ Ibid section 1.3

strategies to regulate the growth of the water sector in terms of coverage and quality. It is also intended to provide policy guidance to both central and decentralised institutions involved in the supply of water, and covers strategy to achieve coverage targets, service quality and cost recovery objectives of the GOSL.

The approved draft national policy on sanitation¹⁷⁰ recognises the fundamental responsibility of the GOSL to take all necessary actions to provide access to basic sanitation to all its citizens. While acknowledging that sanitation has traditionally been given lesser recognition compared to drinking water, the policy is based on the understanding of the vital link between water supply and sanitation in the life and health of a community. Hence, the policy recognises ‘the value of water, and the need for institutional arrangement for efficient management of sanitation facilities’. The focus of urban sanitation improvements will be in areas with high population densities undergoing rapid development, and is provided through two main techniques – urban on-site sanitation and sewerage systems.

2.1 Institutional framework

A number of key institutional reforms have been implemented in an effort to achieve greater coverage and more even distribution of water and sanitation services. The establishment by law in 1975 of the NWSDB, is considered to have been a key move towards the greater involvement of the state in water supply, and the rapid expansion and coverage of water supply services. It also facilitates the provision of sanitation facilities, and water quality standardisation. The NWSDB currently functions under the authority of the Ministry of Urban Development and Water Supply, and remains the main channel for investment in the water supply sector.

The mandate of the NWSDB extends to all aspects of water supply, including planning and feasibility studies for, and design and construction of, new water supply and sewerage schemes; and operation, maintenance of existing facilities; water quality standardisation; and billing and collection through affordable tariffs settings. Prior to the establishment of the NWSDB in 1960, the planning, design, and construction of water supply and sewerage schemes were undertaken by the Public Works Department, while the operation and maintenance of facilities was the responsibility of local authorities. Under the authority of the National Water Supply and Drainage Law, several urban water supply schemes that were operated by local authorities were taken over by the NWSDB, although certain urban authorities, such as the municipal councils in Kandy (in Central Province) and Galle (in Southern Province), retain the functions of building, operating and maintaining urban water supply schemes. The NWSDB in conjunction with the provincial, municipal and urban councils, also engage in the installation of tube wells, common wells and other sources for the supply of safe drinking water, in addition to the supply to piped water.

Both municipal and urban councils are required by legislation,¹⁷¹ under their ‘powers and duties as to public health’ to take effective measures to secure adequate sanitation facilities and to maintain them proper order and condition. The public health department of the municipal and urban councils are given the specific task of overseeing health and sanitation issues of communities and individuals in the areas of their jurisdiction. Technical guidance and approval of household sanitation in urban areas comes within the purview of the Ministry of Health.

Waste water disposal (whether through sewerage or other systems) in the Colombo Municipal area is operated by the municipal council, though the ownership of its assets were given over to the NWSDB in the early 1990s. The NWSDB is responsible for the operation and maintenance

¹⁷⁰ NWSDB (2007) Approved draft of the National Policy on Sanitation, section 1.2

¹⁷¹ Municipal Council Ordinance No. 29 of 1947 and the Urban Councils Ordinance No. 61 of 1939

of the sewerage systems in the municipal area of Colombo (the capital), and in some of the urban councils around Colombo, and in the greater Colombo area.

In addition, a number of other institutions have been given a mandate to control issues impacting water supply and sanitation. Prominent among them is the Central Environment Authority (CEA).¹⁷² The CEA is mandated to formulate policy for the management and conservation of natural resources, including the country's water resources required for drinking water and domestic water supply (see section 2.5 on water quality). The National Housing Development Authority (NHDA) is given the mandate to improve the living conditions of slum and shanty dwellers under the Urban Basic Services Programme of the housing sector, which provides direct assistance to communities to improve sanitation waste disposal facilities, surface drainage and community services.¹⁷³

2.2 Non-discrimination and attention to vulnerable and marginalised groups

Poverty in Sri Lanka is most apparent in the rural areas.¹⁷⁴ However, a significant section of the urban population lives in 'underserved settlements' consisting of slums and shanties. They are characterised by unhealthy and congested environments, the lack of clean water supply, and poor quality drainage and sewerage systems, if there is any at all. There are approximately 65 000 families living in underserved settlements in the city of Colombo (accounting for approximately 50% of the city's population). Furthermore, under-served settlements, consisting of both shanties and slums, are fast becoming characteristics of other urban and urbanising areas.¹⁷⁵ Most of these settlements are situated on private land or state land belonging to various state agencies. Legally, it is the responsibility of the owners of the land to apply for and maintain water supply and sanitation connections on the land. However, the landowners have not taken adequate ownership and responsibility, resulting in the neglect of sewerage and sanitation facilities in the settlements. Local authorities are not legally obligated to address the water and sanitation conditions of these settlements; for instance, the Colombo Municipal Council (CMC) clears blocked waste water lines, but the repair of drainage and sewerage systems are the responsibility of private owners or state agencies who own the land.

However, the introduction of Community Based Organisations (CBOs) in 1979 by the CMC, led to better integration of these communities into the services of the CMC. The CBOs operating in underserved settlements, referred to as Community Development Councils (CDCs) are created by a constitution and registered with the public health department of the CMC. The initiative to establish CDCs is linked to a programme by the UNICEF to introduce water points and toilets in settlements in Colombo.¹⁷⁶ They provide an effective participatory means by which the respective communities can voice their concerns and demand that their health and sanitation needs are met, as well as work in partnership with district officials to facilitate and improve the provision of basic amenities.

Further, CDCs have representation in the District Housing and Community Development Committee (DHCDC) of each District in the Colombo Municipal Area. This is a monthly multi stakeholder meeting headed by the District Medical Officer and attended by NGOs and agencies

¹⁷² The Central Environmental Authority Act No. 47 of 1980.

¹⁷³ MDG Report 2005, Goal 7, pg. 85

¹⁷⁴ Poverty in rural areas is around 20.8%, whereas poverty in urban areas is reported to have declined to 6.2% in 2002; vide MDG Report, 2005

¹⁷⁵ Mahinda Chinthana – vision 2006 – 2016... pgs. _____

¹⁷⁶ Ms. Kumudu Samarasinghe, Superintending Engineer (Drainage), Colombo Municipal Council, Water and Drainage Division (Interview)

working in the District. This forum provides a means by which CDCs are able to resolve issues in partnership with other agencies, who are able to mobilise broader CMC support through their various programmes and projects.¹⁷⁷ In addition, building on the success of the CDCs, a policy decision was made in 1998 to decentralise the municipal budget to meet the health and other needs of the urban poor.¹⁷⁸ This budget may be utilised to address a variety of community needs, including water and sanitation.

Besides the above measures addressing the needs of poorer households, there do not appear to be any specific measures in the water and sanitation sector which address the needs of other vulnerable and marginalised groups.

2.3 Participation and access to information

Participatory approaches have been a distinct feature of the rural water supply and sanitation sector since the 1990s. The NWSDA makes community participation a priority in the design and implementation of water and sanitation projects. However, participation of beneficiaries is a secondary consideration in urban areas, where the large number of connections, and therefore users, makes it more difficult to involve the community in the same manner as in rural water and sanitation developments.

There is commitment at the policy level however, to include community participation in the development of both rural and urban sectors of water and sanitation provision. The National Policy on Water and Sanitation calls for ‘reform of the structure of service provision, among other things, to improve accountability, and support community participation while ensuring adequate provision for low income urban and rural consumers’.

Community participation in urban areas is encouraged in projects that are implemented in low income settlements. Since the 1970s, participation of these communities has been encouraged through CBOs established in these settlements. The NWSDB and local authorities engage with these communities regarding the design, operation and maintenance of water and sanitation services (see section 2.2 and 2.6). The community participation approach was taken in providing approximately 3250 stand posts by the end of 1996 for the benefit of persons who could not afford water connections, in the Colombo and greater Colombo areas.

2.4 Water availability and allocation

Inadequate coordination between the several agencies controlling and administering water resources, and the lack of policy for inter-sectoral allocation of water, affects the availability of water for domestic uses. Measures to improve efficient use of water, such as demand management has been introduced in rural areas in Sri Lanka. Demand responsive approaches taken in the design and implementation of water services, have proved successful in rural areas.

In urban areas demand management is restricted to ‘cost recovery measures’ through the use of tariffs, which have had a limited impact in securing equitable allocation of water resources among different users. However, a number of alternative measures to increase availability such as rainwater harvesting are now in the process of being implemented (see section 2.6). There is recognition by government of the need for parallel interventions by regulatory authorities and the

¹⁷⁷ Sevanatha Publication, pg 13

¹⁷⁸ Ibid, pg. 14

strong application of building regulations, for the introduction of alternative methods of water supply.¹⁷⁹

Inter sectoral water allocation is most often managed through interagency agreement. Thus, water allocation is carried out by the management activities of respective agencies. Scarcity of water for domestic use in urban areas is managed primarily by means of restricting water service delivery during the day time.

2.5 Water quality and hygiene

Water quality issues in urban areas stem largely from saline intrusions into rivers and groundwater due to over-abstraction of water, and from the pollution from unplanned industrial expansion and rapid urbanisation. These issues have the effect of interrupting water supply to urban areas, and posing serious threats to the health of the urban population. Rapid urbanisation has resulted in drainage and sewerage systems being strained beyond capacity. In the greater Colombo and Colombo Metropolitan areas, for instance, the major source of pollution is domestic wastewater, where the existing sewerage system is unable to cope with the daily disposal of a growing volume of wastewater and faecal matter.¹⁸⁰ Industrial development, consisting of mainly small and medium scale industries, is predominantly in urban areas. Untreated effluents discharged by these industries into drains, eventually contaminate waterways and rivers.

Significant among the various institutional measures that have been taken over time to control and monitor the quality of water, is the establishment of the Central Environmental Authority (CEA) in the 1980s.¹⁸¹ The CEA is mandated by legislation to formulate policy for the management and conservation of the country's natural resources. Provision is made for the prevention of pollution from permitted industries and the introduction of an environment protection licensing scheme. The CEA Act specifically prohibits the pollution of inland waters and outlines corresponding criminal liability for any pollution caused. It further requires that prescribed projects be subject to an initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA)¹⁸² The CEA checks industrial effluent quality at discharge points, and together with the Sri Lanka Standards Institute (SLSI) reviews standards for industrial effluents which may be discharged to the environment, and monitors the disposal of hazardous wastes, through the testing of effluents and waste matter.

The NWSDB has established measures to investigate the quality of water sources from which domestic water is supplied; and monitors water quality at the intake to water supply schemes and the quality of treated water.¹⁸³ Both the Sri Lanka Standards (SLS) for water quality and WHO standards are used to monitor the quality of water. A majority of the water supply schemes operated by the NWSDB are in keeping with established standards of water quality. In addition, the NWSDB have programmes in place for water quality monitoring and surveillance for the prevention of natural and industrial pollution.

¹⁷⁹ Supra note 6 pg. 87

¹⁸⁰ Supra note 7, Mubarak, A.M. Water Pollution, pg 217

¹⁸¹ Supra note 25

¹⁸² These provisions were introduced by amendment No. 56 of 1988, to the National Environment Act No. 47 of 1980. They introduced, among other things, measures to prevent pollution at source, and the imposition of criminal liability on the basis of the Polluter Pays Principle.

¹⁸³ National Water Resource Policy and Institutional Arrangements (2001), Water Resource Council and Secretariat

2.6 Physical accessibility of water and sanitation

The NWSDB has established targets to increase the overall coverage and physical accessibility of safe water and sanitation throughout Sri Lanka. It is estimated that by 2011 coverage of piped water will increase to 40% and access to safe water will reach 82%, which includes water supply by protected dug well (30%), tube wells (8%), and by rain water harvesting (4%). The target for urban areas is 100% coverage for piped water, and for sanitation to prioritise sewerage with 3% coverage of the total population by 2011. According to government sources, Sri Lanka is on track in achieving established targets for – the proportion of population with sustainable access to an improved water source, both in urban and rural areas; and proportion of urban and rural population with access to improved sanitation.¹⁸⁴

In a key move to improve ‘accessibility’ of water, Sri Lanka became the first country in the world to formulate a national policy and strategy for rainwater harvesting.¹⁸⁵ This policy was formulated to meet the ‘challenge of supplying adequate water... to meet societal needs and ensure equitable water access through out the year in both rural and urban areas’.¹⁸⁶ Rainwater harvesting is to be introduced in all areas falling within Municipal and Urban council jurisdictions, initially to be used to meet the water needs of building and development work. It is intended to provide a cost effective means of water supply, whereby urban demand for industrial and domestic water use will be managed without over extraction of water sources used for rural water supply.

There is wide disparity among the urban poor in accessing water and sanitation. Many do not have individual connections and have poor access due to a variety of reasons, including land tenure problems and the relatively high cost of connection. Initiatives have been taken on a project basis to improve the physical accessibility of water supply and sanitation among the urban poor. The NWSDB for instance implemented a pilot project, a public private partnership with the assistance of the United Nations Economic and Social Commission for Asia and the Pacific UNESCAP, to provide the opportunity for the low income community of *Halgabakumbura* (popularly referred to as ‘dump watte’), to receive permanent connections to a water supply on the payment of a monthly fee. Among the issues and problems affecting this community were the lack of individual water connections and drainage, solid waste disposal systems, and lack of land tenure. At the commencement of the project in 2003 only 48 out of 508 households had access to individual water connections. The remaining households had access to 8 standpoints from which to collect water. Furthermore, only 162 households had individual toilets, and these were without a proper drainage system and in risk of flooding. By mid-2005 the entire community was connected to the water supply system.¹⁸⁷ In view the hardships incurred, especially for women and girls and the discord that stemmed from using common public outlets, this community was agreeable to the implementation of this project. A survey demonstrated that the inhabitants were willing and able to incur the costs of connection and water charges if individual connections were installed (see section on affordability for concessions given to low income communities). This project proved useful as a pilot to address both the limited coverage of low income communities in urban areas and as a measure to reduce the large amounts of non-revenue water that is used at stand posts, largely due to the improper use of these stand posts, especially in the Colombo and greater Colombo areas.

¹⁸⁴ Supra note 1 pg 84

¹⁸⁵ Ministry of urban development and water supply (2005) National Rain Water Policy and Strategies.

¹⁸⁶ Ibid, section 1.0: Introduction

¹⁸⁷ Sevantha (2006) *Water Distribution in Colombo*, Chapter 5, pg.50

2.7 Affordability of water and sanitation

Water supply in Sri Lanka was free of any direct charge until 1975 after which domestic water users were charged on an annual assessment rate. In 1982, measures were taken to introduce consumer metering and billing with a view to making the NWSDB commercially viable and an independent institution. The current measures, introduced under a water meter and billing programme for domestic and commercial water supply, involve a volumetric fee which is charged to recover operation and maintenance costs and a part of the capital costs of expansion of services.

The pricing policy of the NWSDB for domestic water use has inbuilt safety nets for the equitable allocation of water for the poor and marginalised. Water is priced using a rising step tariff; where the use of a minimum quantity of water is not charged and the unit price of water for small scale water users above this minimum quantity is low. The tariff system partially subsidises households using small quantities of water by charging more for the use of large volumes of water. The NWSDB does not levy a full cost recovery price for domestic water supply; the criteria used takes into account the 'willingness to pay' of water users and 'affordable tariff levels'.¹⁸⁸ Domestic supply is also subsidised through higher tariffs for industrial water use with water supply for industrial use priced at around six times more than water for domestic use. Further, urban domestic water tariffs are heavily subsidised by the Government as well as through cross-subsidies between consumers and between projects. Water connections are provided at 50% of the actual cost and the price of water on average is less than 4% of any household income.¹⁸⁹ Stand pipe users rarely pay for the use of water; provincial authorities or the government bear the cost of water supplied through stand pipes.

The pricing policies of the NWSDB have not proved effective in water demand management, as was intended, because the price for domestic water supply is relatively low. Further, in view that industrial water usage is relatively small, the cross subsidisation of domestic water supply by the industrial sector is considered unsustainable due to the rising demand for domestic water supply. Therefore, the national policy on Water Supply and Sanitation outlines measures to 'gradually increase tariffs domestic water supply to reflect the full cost of efficient services and to reduce subsidies, while ensuring the affordability of water and sanitation for low income urban and rural consumers'.¹⁹⁰ Strategies outlined in this regard include: the gradual increase of water supply tariff in urban areas to recover the full supply cost of providing services; the introduction of a sewerage tariff to cover operation and maintenance costs in areas served by a sewage collection system; and the introduction of provisions for low income consumers including an appropriate 'life line' tariff to ensure affordability of a water supply sufficient for basic consumption and hygiene.

The approved draft of the National Policy on Sanitation outlines a similar approach to cost recovery. It specifies the 'periodic adjustment of tariffs to reflect the cost of efficient service and reduction of cost through increased operational efficiency while adopting the fundamental principle of recovery of operation and maintenance costs'.

It is recognised that programmes implemented for poor communities and slum dwellers need to incorporate differential measures in cost recovery, until such time that these communities achieve their goals for safe water, good sanitation and a healthy environment.¹⁹¹

¹⁸⁸ Water Resource Council and Secretariat (2000) National Water Resource Policy and Institutional Arrangements

¹⁸⁹ Gunatilake G., Gopalakrishnan C (2002) Proposed Water Policy for Sri Lanka: The Policy versus the Policy Process, Water Resources Development, Vol.18, No. 4, 545 – 562, at page 554

¹⁹⁰ National Water Supply and Drainage Board (2002) National Policy on Water Supply and Sanitation, Section 3.3

¹⁹¹ MDG report, pg 85

3. Lessons learnt

Progressive legislative, institutional and policy reforms since independence have seen a significant expansion in the scope and operation of the domestic water supply and sanitation sector in Sri Lanka. Coverage of water supply and services in urban areas especially has expanded significantly in the last few decades. A discussion of the ‘rights based approaches’ (RBA) however, must take into account the changing context in Sri Lanka, and new challenges and demands on water resources and its implications for the domestic water supply sector. There is a need for legislative and institutional reforms that are able to regulate increasing usage and competing demands on water resources among the different water users, for the equitable allocation of available water resources. Legislative and institutional developments in the past have addressed different areas of water resource development in isolation, and have not adequately addresses inter-sectoral allocation and distribution of water. This is especially significant in view of the fact that a large number of water supply schemes under the NWSDB suffer a shortage in water supply. While there is substantial urban coverage of water supply, much of the greater Colombo and other provincial urban areas experience water shortages and interruptions in water supply.

Following the 13th amendment to the Constitution, there is much scope for decentralisation of the domestic water supply and sanitation sector. Institutions at the provincial and local level are better able to identify the water and sanitation needs of communities and engage in participatory approaches in order to improve the availability and accessibility of services, and deal with water quality issues. However, a lack of effective decentralisation and challenges in institutional capacity at the decentralised and provincial levels of government peripheral levels has eroded the potential of decentralised institutional structures to implement such RBAs. Further, it has been identified that there is a distinct lack of coordination among ministries, departments and agencies functioning in the urban sector, and a lack of clear prioritisation of activities.¹⁹² The NWSDB is compelled to cope with increasing development and operational costs resulting from long distance water conveyance and poor raw water quality. Effective decentralisation of water services would also be of immense value and relevance to those affected by natural disaster and the civil conflict in the North - East regions of Sri Lanka. Rehabilitation and resettlement efforts in the aftermath of the December 2004 December tsunami natural disaster, in urban locations for instance, are hampered by a lack of official water connections and shortages in water supply.

A number of constructive measures have been taken by government, local authorities and non governmental institutions to address the conditions of abject poverty in ‘underserved’ or low income settlements in urban areas. Community based projects have done much to secure the participation of communities living in these settlements in the provision of adequate water supply and sanitation facilities. However, although CBOs have been established, the reality is that many of these CBOs (or ‘CDCs’) are no longer operational; the numbers having fallen from 620 in the late 1980s to only 126 in 2002.¹⁹³ The lack of any effective alternative participatory mechanisms reduces the opportunities for these communities to make known their concerns and participate in decision making that has a bearing on their welfare. A decline in the number of operational CBOs is detrimental, especially as these communities may have little other opportunity to involve themselves in decisions regarding municipal and urban water and sanitation services. It is also the case that CDCs are activated or operationalised by the authorities only where there is an external project or initiative by which these communities may benefit.¹⁹⁴ Where there are no external means by which water supply and sanitation conditions in these settlements may be upgraded

¹⁹² Department of National Planning, (2006) Mahinda Chinthana.... Pg. 83

¹⁹³ Sevanatha (2006) *Building Capacity to Facilitate Change – A practical Guide to Alleviate Urban Poverty*, Urban poverty reduction through community empowerment project (UPRP) Colombo, Sri Lanka 2001 – 2003, pg.15

¹⁹⁴ Supra note 29

there is little use of the CDCs, which eventually become dormant. Thus, empowering CDCs to voice their concerns and to participate in decisions that have a bearing on them is to a great extent dependent on whether there are external measures in place to address the issues impacting these communities. Participation of low income communities must essentially be a bottom up exercise, which might invariably take a top-down approach if external assistance dictates the existence of CDCs.

Participatory approaches to water supply and sanitation on the whole is less distinct in urban areas in Sri Lanka. There is less flexibility to determine the type of connection, and therefore the cost of connection, the modes of payment, and tariff levels. Therefore the urban poor who do not live in low income settlements may not have adequate means by which they can voice their needs and concerns to the relevant authorities, and benefit from any special or differential treatment that may be available to them.

Notwithstanding the above, there has been substantial expansion of water and sanitation services in urban areas and Sri Lanka is currently on target in progressing towards the millennium development goals. The majority of urban households have access to adequate and safe water supply and sanitation facilities. The introduction of cost effective technologies such as rain water harvesting are among the progressive measures that have been adopted to increase the availability and accessibility of water supply. These measures have the potential to overcome problems with the security of water supply resulting from water cuts and shortages in urban areas, such as in the greater Colombo area. The predominant approach in the past has been to adopt a 'supply driven – subsidy based approach' however, the emerging strategy is to 'encourage consumers to use multi-source water supplies for different water needs reducing the consumption of treated water for non drinking purposes'.¹⁹⁵ It is imperative however, that low income communities are given adequate information on the different services and options available them with regards to low cost technologies.

A number of progressive measures have also been taken to regulate the quality of domestic water supply. The mandate of the CEA has much potential to effectively regulate water pollution and potential degradation of water resources. Given the substantial mandate of the CEA however, the staff and resources of the CEA are often over-stretched and unable to effectively fulfil its regulatory role. A system to control industrial pollution requires sufficient institutional capacity to monitor pollution and enforce existing regulation. The CEA's powers of enforcement have proved ineffective and lacking in many instances. Further, a significant number of industries (especially those established before 1990) do not have effluent treatment plants. With the exception of a few medium and large industrial plants situated in industrial zones, many industries do not maintain treatment plants that have the capacity to adequately treat and manage the discharge of industrial effluents. An increasing trend in bacteriological contamination is another issue of immense concern to the quality of drinking water. Discrepancies between the SLS and the WHO guidelines for drinking water result in insufficient testing of those constituents, mainly organic contaminants, with implications for health and hygiene. The NWSDB does not have adequate technology and expertise to regulate the industrial effluents that contaminate drinking water supply. These issues impacting the quality of water need to be addressed before it is possible to fully realise the right to safe drinking water.

Water services and sanitation facilities are affordable to the majority of the population in Sri Lanka. The inbuilt safety nets in the domestic water supply sector allow for delivery at a low cost, especially to small scale users of water. However, the equity of the current tariff structure is questionable in view that a majority of middle class and upper middle class persons with access to piped water, benefit from subsidised water supply, while subsidies are not extended to other

¹⁹⁵ Supra note 7 pg. 84 - 85

forms of water supply and to target groups who are unable to pay for water at all. The policy proposed in 2002 contains provision to make incremental increases to existing tariffs to meet the full costs of supplying safe water. It is envisaged that better cost recovery measures would make equitable allocation of water supply and sanitation facilities possible among low income communities and the urban poor in Sri Lanka. In which case, apart from questions of whether proposals to increase tariff structures are desirable or not, the key consideration would be the timely implementation of these measures, such that those without adequate access to water and sanitation, and who are unable to pay for water and sanitation, may have access to services and facilities.