DFID Department for International Development

Cranfield UNIVERSITY Silsoe

# Water Law, Water Rights and Water Supply (Africa)

# GHANA - study country report

August 1999

Author: **Kwadwo Mensah**, Ghana
(email: csucc@ghana.com)

[Study country reports also produced for Mozambique, Tanzania, Uganda, Zambia]

# **DFID** KaR Project **R7327**

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

August 1999

Dr Peter Howsam
Reader (Groundwater Engineering and Water Policy & Law )
Institute of Water and Environment
Cranfield University at Silsoe
Tel: +44 (0)1525 863288
Fax: +44 (0)1525 863300
Email: P.Howsam@cranfield.ac.uk

# STUDY REPORT

## STUDY SUMMARY REPORT

**STUDY COUNTRY REPORTS**

**Ghana**

**Mozambique**

**Tanzania**

**Uganda**

**Zambia**

# **2.1** Study Country Report - **Ghana**

**TABLE OF CONTENTS**

# 1. INTRODUCTION

Ghana is situated on the west coast of Africa and has a land area of about 238,000 $km^2$. It has a tropical climate. The mean annual rainfall is over 2000mm in the south-west. This reduces as one moves eastward and northwards. The mean annual rainfall is about 800mm at Accra and about 100mm in the north. The mean annual temperature is about 30c. It is very humid on the coast (about 90%). In the north, humidity during the dry season is about 20%.

Ghana's surface water resources come from three main river systems that drain the country. These are the Volta river system, the South-western river systems and the Coastal river systems. The Volta river system is shared with Ivory Coast, Burkina Faso, Mali, Togo and Benin whilst the Bia river, part of the south western river system, is shared with Ivory Coast. The total runoff is about 54.4 billion m3 of which 38.3 billion m3 comes from the Volta River.

The population of Ghana is about 18 million people. Ghana has had a turbulent political history. It got independence from the British in 1957. Since then there has been several overthrows of governments. In 1992 Ghana returned to democratic government and has had two peaceful elections since then. Since 1983, Ghana has embarked on a programme of structural adjustment that aims at using the market as the mechanism for allocating economic resources. De-regulation and privatisation have been important components of this programme. Ghana has received support from donor agencies like the World Bank and the IMF. They have pushed for more market friendly and de-regulatory policies in the reform programme.

## 1.1 ACCESS TO, AND THE MANAGEMENT OF, WATER AND SANITATION IN GHANA

There two major sources of water law in Ghana are customary and statute law. In this paper, we wish to examine how water is perceived and managed according to these laws. From the perspectives of statutory and customary law, we shall deal with various issues relating to the nature of water, its management, its conservation and its regulation. There is a close relationship between sanitation and water management. Consequently, we shall also be interested in the management of sanitation. We are particularly interested in the impact that water law has on ensuring that clean water and sanitation is available to poor people in rural and urban areas of Ghana.

## 1.2 PROBLEMS CONNECTED WITH THE PROVISION OF WATER AND SANITATION IN GHANA

Clean water is essential for human life. In developing countries, many people do not have access to clean water. In Ghana 85 % of people living in rural communities regularly use water which is unsafe (*Halcrow Consultancy Report 1995*), and about 28% of the urban poor have no running water in their homes (*Rakodi C., 1996 p*).

As clean water is a basic necessity of life, one would have thought that governments would ensure that every citizen would be guaranteed a certain minimum amount of water at an affordable price. Making water available to all will result in substantial improvements in the conditions of life for all citizens, especially the poor. We shall call a

position that argues that every citizen has a right to clean water and therefore it must be made available to all, the *'entitlement view'* of water. There is a close relationship between *entitlement* and *poverty alleviation*. Consuming unclean water leads to water borne diseases. This affects productivity and economic well being. A programme that increases access to water will reduce disease and thus poverty. In this paper, we shall examine the relationship between water law and poverty alleviation. We shall call this the *poverty problem*.

Clean water is a finite resource. Ghana has embarked on a medium term development programme called Vision 2020. The object of this programme is to turn the country into a middle income country by the year 2020. To achieve this, the economy must grow at an average rate of 8% per annum. Ghana's population of 18 million people is expected to double by 2020. Rapid population growth and increased economic activity will put severe pressure on the country's water resources. There is bound to be increased conflict between different users of water. There is therefore the need to manage water in a way that makes it available all year round and reduces conflict between different water users. Deterioration in water quality is due mainly to pollution. Poor land use affects water quality negatively. This also has an impact on aquatic life and causes diseases among humans. In this paper, we are also interested in the inter-related problems of the environment, conservation and water quality. The question we wish to answer is 'how do the various legal regimes protect the environment in order to conserve water and safeguard its quality?' We shall call this the *environmental problem*.

In most developing societies, women are the primary collectors of water. It takes long hours and long distances for women to get water. The methods of carrying water also lead to physical injury. Women therefore have a special interest in ensuring that water is always available. There is now an accepted view that a special role ought to be given to women in the management and control of water resources. Consequently, the last issue that we shall be interested in is the role that is given to women in the management of water. We shall call this the *gender problem*.

We shall assess the various regimes according to the way they deal with the problems enumerated above. The research for this paper was conducted in communities in the Assin Foso District, representing rural Ghana, and Kotokuraba and Antem in Cape-Coast Municipal area, representing the urban poor. Other research works from other parts of Ghana supplement this research.

This paper will develop along the following lines. First we shall discuss the statutory legal framework for providing water and sanitation to urban and rural communities in Ghana. Here, we shall discuss the institutions set up to provide water for domestic purposes to urban and rural communities in Ghana. We shall also discuss the regulatory institutions established to regulate the water sector. Then we shall discuss the nature and status of the customary regime for providing water. We shall then assess the various regimes according to how they deal with the problems enumerated above. We shall go on to discuss the enabling conditions and the constraints that face the provision of clean water to poor people in Ghana. We shall conclude by making recommendations about how water and sanitation provision can be improved in Ghana.

## 2. STATUTORY LEGAL FRAMEWORK FOR WATER AND SANITATION

In this section, we shall discuss the emerging consensus on water policy and the major institutions created by statute to deliver water in Ghana. We shall also discuss the institutions created to regulate the water sector.

### 2.1 NATIONAL WATER POLICY

It is difficult to state that Ghana has a Water Policy because there is no national water policy document that states the intentions of government on the management of Ghana's water resources. What exists is a document by a number of consultants entitled *' Ghana's Water Resources, Management Challenges and Opportunities'*, (to be referred to as *Ghana's Water Resources*) published by the Ministry of Works and Housing, which makes recommendations about how Ghana's water resources should be managed. It seems however that government is following these recommendations. We shall discuss the salient recommendations of the document in the light of the difficulties that have faced the country in the management of its water resources.

Until recently there was no institution in Ghana that had overall responsibility to manage the country's water resources. Several single purpose state agencies like the Ghana Water and Sewerage Corporation (GWSC), the Volta River Authority (VRA), and the Irrigation Development Agency (IDA), pursued their individual mandates with little co-ordination and without any thought about what other water users required. Little emphasis was put on the management and conservation of water. Second, water was provided in a way that did not capture the economic value of producing and conserving it. It was either provided free of charge or at a very subsidised rate. Third, there was no effective regulation of the water sector. The likely result was that the management of water could not be sustained.

The recommendations made in *Ghana's Water Resources* are supposed to correct these mistakes. It was recommended that Ghana should move away from a state dominated water sector to a private sector led industry where the private sector plays the central role in investing and in delivering water. The recommendations argue that there are costs involved in managing water in a sustainable manner (*Ghana's Water Resources, pp 55-57*). A price must therefore be placed on the use of water resources in order to capture its value as a scarce resource. Raw water abstraction should attract a fee. The 'polluter pays' principle should be used to control discharge of effluents into water. People who use water for non-extractive purposes like fishing, transportation and recreation should be made to pay a fee for its use. The introduction of water charges should facilitate the promotion of water conservation, the protection of the aquatic environment and the maintenance of a database on water resources (*Ghana's Water Resources, pp 46-51*).

The objectives of regulation should be to ensure an efficient co-ordination and planning of water resources in Ghana. It should protect the economic life of existing investments in infrastructure and create the appropriate framework for people to invest in water and its resources. It is hoped that such an environment will safeguard the public interest against failure of hydraulic structures, flooding and river bed and reservoir sedimentation and facilitate the participation of all users in the management of water resources.

It also suggested changes in the institutional setting for managing water resources and controlling pollution. It argued for a multi-sectoral approach to water resources

management. It recommended that a single agency should be established to co-ordinate the sector's activities to ensure that there is minimum conflict between different water users.

## 2.2 NATIONAL WATER LEGISLATION

There are a number of agencies in Ghana that provide water under statute law. However, the most important ones for purposes of providing water for domestic consumption are the Ghana Water and Sewerage Corporation, (GWSC) and the Community Water and Sanitation Agency (CWSA). By practice and orientation, GWSC has concentrated on the provision of water and sewerage services in urban areas, whilst the CWSA facilitates the provision of water in rural areas. The CWSA works in close collaboration with District Assemblies. Recently, a number of regulatory institutions have been established to regulate the delivery of water to consumers and also to protect the environment and conserve water resources.

## 2.3 THE GHANA WATER AND SEWERAGE CORPORATION

The GWSC was set up in 1965 as a public corporation. A managing director who is accountable to a Board of Directors heads the Corporation. GWSC has 10 regional offices headed by regional directors.

Under the GWSC Act 1965, GWSC has authority to provide, distribute and conserve water for domestic, public and industrial purposes (section 4 of GWSC Act 1965, Act 310). It is also supposed to establish, operate and control sewerage systems in Ghana. The Corporation has power to make long term plans for the provision of water and the operation of sewerage systems in Ghana. It has authority to conduct research into water and sewerage issues. It can also make engineering and survey plans and it can construct and operate water and sewerage works in the country. It sets the standards for water supply and the operation of sewerage systems.

Under LI 1233, the Corporation has enacted regulations through which water and sanitation facilities can be made available to Ghanaians. These regulations are meant to protect the environment, protect natural watercourses and provide for proper sewerage systems. Among its important powers, GWSC can by a notice published in the Local Government Bulletin, declare an area to be a 'connection area'. It can also in consultation with the Town and Country Planning Authority, establish planned connection areas. When an area is declared a connection area, GWSC can take over any private sewerage system there. Anybody who wishes to build a private sewerage system in a connection area must submit his plans and drawings to the GWSC for approval. The GWSC can also enter any land in a connection area and install or inspect a sewerage system (Sections 1-20 of GWSC Regulations 1979, LI 1233).

The GWSC has power to serve a notice on the owner or occupier of land in a connection area to apply for the installation of a water or sewerage system. A person can also on his own apply for the grant of a permit to construct a sewerage system. No private sewerage system can be connected to a public sewerage system without the approval of GWSC. The Corporation has authority to enter a person's premises or land and install or complete the installation of a sewerage system without the person's approval and at the person's expense. No one can receive a building permit in a connection area if he does not have a permit to install pipes and sanitary appliances in the building to be constructed.

The Corporation has regulatory powers to protect natural waterways. It is therefore illegal to pollute a watercourse or to cause damage to a sewerage system. Nobody has authority to dig, excavate or remove earth around a public sewerage system without the prior approval of the Corporation. No one can build a structure over or near a public water way or sewerage system without the prior approval of the Corporation.

Customers of the Corporation are under obligation to pay for services provided by the Corporation. This has to be done within 14 days of the receipt of a bill. The Corporation has authority to disconnect a person who fails to pay for services it has provided. It can also institute action in court to recover monies owed to it.

## 2.4 THE COMMUNITY WATER AND SANITATION AGENCY

As we have already stated, GWSC has concentrated on the provision of water to urban areas. It failed to provide water to the rural areas of Ghana. In 1994 an autonomous division of the GWSC, the Community Water and Sanitation Division was created to facilitate the provision of water to rural areas in Ghana. By Act 564, the Community Water and Sanitation Agency became an institution in its own right and it is no more a division of GWSC. The CWSA is in the process of separating itself from GWSC.

Among the objectives of the CWSA is to facilitate the provision of safe water and sanitation services to rural communities and small towns (Section 2 of Community Water and Sanitation Agency Act, 1998, Act 564). It must support district assemblies in promoting sustainable safe water and sanitation services in rural areas. It must support district assemblies to encourage the participation of communities, especially women, in the management and construction of water and sanitation facilities. Among its responsibilities, it has to design strategies for mobilising resources for the execution of water and sanitation projects. To achieve this objective, it must encourage the private sector to participate in the provision of water and sanitation facilities. It must also provide district assemblies with the technical assistance required for executing water and sanitation projects. It also co-ordinates the activities of NGOs (Non-Governmental Organisations) involved in the provision of rural water, sanitation and hygiene education. It must collaborate with the Ministries of Local Government, Environment, Health and Education in increasing consciousness about water related health hazards. It must set standards for the provision of water and sanitation services. It has to charge fees for the services it provides and it must collaborate with International Agencies it considers necessary for implementing its programmes. It must collaborate with the Water Resources Commission, the Environmental Protection Agency, the GWSC and other public and private bodies that are involved in the provision of water and sanitation services to rural communities in Ghana.

## 2.5 DISTRICT ASSEMBLIES

Ghana has embarked on a decentralisation programme that is aimed at allowing decisions affecting communities to be taken at the lowest appropriate level. Under the Local Government Act 1993, Act 462, district assemblies are the highest political and administrative authorities in the district (Sections 10(1), 10(3)(c)(d)(e) of the Local Government Act, 1993, Act 462). District Assemblies must promote productive activity and social development in their districts. They must also remove all impediments to development in their districts. It is their responsibility to develop the basic infrastructure and provide the municipal works and services required in the district. They are also

responsible for the development, improvement and the management of human settlements and the environment in their districts.

Under the second schedule 2 of the Local Government (Assin District Assembly)(Establishment) Instrument, 1988, LI 1380 some of the Assembly's duties include:

- To ensure the provision of adequate and wholesome supply of water throughout the entire District in consultation with the Ghana Water and Sewerage Corporation.
- To establish, install, build, maintain and control public latrines, lavatories, urinals and wash places.
- To establish, maintain and carry out services for the removal of night soil from any building and for the destruction and treatment of such night soil.

The lowest political authority in a district is the unit committee. Under schedule 5 of the Local Government (Urban, Zonal and Unit Committee) Establishment Instrument, 1994, LI 1589, unit committees are supposed to perform the following functions:

- Mobilise members of the Unit for the implementation of self-help and development projects.
- Monitor the implementation of self-help and development projects.

There is thus a close connection between the Community Water and Sanitation Agency, District Assemblies and the Unit Committees. The Community Water and Sanitation Agency is responsible for facilitating the provision of water and sanitation to rural communities. A District Assembly is responsible for ensuring that adequate and wholesome water is provided in the district. They are also responsible for developing infrastructure, the municipal works and human settlements. They are also responsible for managing sanitation. Unit committees are responsible for initiating and monitoring self-help projects. The provision of water and sanitation under the Community Water and Sanitation Programme (CWSP) for communities is supposed to be self-help.

## 2.6 REGULATORY INSTITUTIONS

A number of institutions have been established to regulate the delivery of water in Ghana.

### 2.6.1 The Water Resources Commission

The Water Resources Commission was set up under article 269 of the 1992 Constitution to be the single agency responsible for co-ordinating water policy in Ghana. Act 522 established the Commission.

The Commission is responsible for the regulation, management and co-ordination of policy in connection with water (Section 2 of Act 522). It is supposed to propose comprehensive plans for the utilisation, conservation, development and improvement of water resources in Ghana. It has the mandate to initiate, control and co-ordinate activities connected with the development of water resources. It grants water rights. It can also

require water user agencies to conduct research into water resources. It has also authority to monitor and evaluate programmes for the operation and maintenance of water resources in Ghana. It advises the government on issues that are likely to adversely affect water resources.

Under the Water Resources Commission Act, the property in and the control of water resources is vested in the President on behalf and in trust for the people of Ghana (section 12). No person has authority to divert, dam, store, abstract or use water resources, construct or maintain works for the use of water resources without the authority of the Commission. A person who has been lawfully granted access to water resources can abstract it and use it for domestic purposes. However, no one has authority to abstract water for domestic purposes without a permit (section 13-24).

Where the Commission thinks that the use of a water resource poses a threat to the environment or public health, it may by notice order the person polluting the water resource to stop the activity. When an application for a water right is made, the Commission is obliged to consult inhabitants in the area where the right is to be granted, to ascertain their views on the grant of the water right. It also has to publish the application in the *Gazette* to allow anyone who has an interest in the water resource to indicate the nature of his interest. The grant of a water right may be subject to conditions. No one has authority to transfer a water right without the written approval of the Commission.

The Commission has power to suspend or vary a water right if it thinks that the water resource in an area is insufficient for public purposes. Where it thinks that the water resource is needed for a public purpose it can also terminate or limit a right already granted. Compensation can be given to the right holder if this occurs. A water right can be terminated for breach of a condition attached to the right or for non-use. It is an offence to interfere or alter the flow of water, or pollute or foul water beyond the limits prescribed by the Environmental Protection Agency.

The WRC has just started its work. It is in the process of formulating its policies with regard to the granting of water rights.

### 2.6.2 The Environmental Protection Agency

The Environmental Protection Agency was established in 1994. Its functions include advising the Minister for the Environment on policies on all aspects of the environment (Section 2 of the EPA Act 1994, Act 490). The Agency is also supposed to co-ordinate activities of all bodies concerned with the environment and to be the link between such bodies and the Ministry of the Environment. It has responsibility to co-ordinate the activities of bodies that generate waste with the object of controlling the generation, treatment, storage and transportation of industrial waste. It must protect and improve the quality of the environment. It has power to issue environmental permits and pollution abatement notices in order to control waste discharges and emissions and to prevent or reduce noise pollution. It is supposed to provide standards and guidelines in relation to air, water and other forms of environmental pollution. It also has authority to ensure that developers comply with environmental impact assessments of their development plans before they begin development.

The EPA is supposed to implement the National Environmental Action Plan.

### 2.6.3 The National Environmental Action Plan

The objectives of the National Environmental Action Plan are to improve the surroundings, living conditions and the quality of life for all generations of Ghanaians. It aims to ensure that there is reconciliation between economic development and natural resource conservation. It is hoped that a high quality environment will become an essential element in Ghana's economic and social development plans (Ghana Environmental Action Plan, vol. 1, pp 1-18).

The principles on which the National Environmental Action Plan is based are that there must be optimum sustainable yield from the use of natural resources. It requires that the most cost-effective methods should be applied to achieve environmental objectives. This means that incentives and regulatory methods should used to achieve environmental objectives. Consequently, the polluter should be made to pay for the cost of preventing or eliminating the pollution or nuisance he has caused. Decisions on the environment should be taken at the lowest appropriate level. The public must also be encouraged to participate in decisions that affect the environment. Ghana must co-operate internationally to achieve environmental objectives.

### 2.6.4 The Public Utilities Regulatory Commission

We shall discuss the nature of water supply to consumers in Ghana in later sections of this paper. When we do that, we shall see that among the major complaints of consumers, are the high tariffs they have to pay for water and the deteriorating quality of service they receive from GWSC. The PURC was set up in 1997 to regulate the tariffs charged by utilities and to protect both consumers and utility companies. It is supposed to provide guidelines on rates that can be charged by Utility companies and to approve rates chargeable by the Utility companies. It is supposed to monitor the standards and performance of utility companies (PURC Act 1997).

According to Part III of the Act, the PURC is supposed to set up a complaint procedure for consumers dissatisfied with the services or actions of a utility provider. The PURC has also just been set up and is now developing policies to fulfil its mandate.

## 3. NATURE AND STATUS OF CUSTOMARY WATER RIGHTS

Before the creation of GWSC and CWSA, customary law was the regime through which water was provided to people living in the rural areas of Ghana. Due to the fact that water has not been provided to all rural communities under the CWSP, customary water law continues to be important in enabling people to get water.

### 3.1 DESCRIPTION OF CUSTOMARY WATER LAWS

Traditionally, water is a treasured natural resource (see Ofori Boateng J. 1977). The major sources of water in the customary regime are wells, streams, rivulets, and rivers in that order of importance.

Most of the rural communities in the Assin Foso District have access to a surface water source. The desire to situate communities near water sources is commonsensical since water is essential for life. Human settlements are however situated quiet a distance from water sources. This prevents human settlements from suffering from floods during rainy seasons. Situating settlements away from water sources has its drawbacks. It can take some time to get water. However, this compels people to conserve water and it prevents the use of rivers as sewers.

In most communities, no institution or office has responsibility to *provide* water. This may be due to the fact that water is acquired solely from natural sources and available technology is not sophisticated enough to get deep ground water. During dry seasons, when very little water is available, it is the responsibility of individual households to look for water. Communities however have institutions to ensure that water is conserved and its quality is maintained.

Water in its visible form - as sea, rivers or lakes - cannot be privately owned. It is unclear whether it is public property. In some communities, surface water is public property. In others, it belongs to the king. In reality the king holds the water in trust for his people. In other communities, water is said to be 'ownerless'. Generally, a private person will never be allowed to purchase or own a surface source of water.

Within the customary regime, it is not easy to get access to ground water. Ground water is acquired through digging wells. It is therefore unclear whether underground water is considered public or private property. There are clearly public wells, when the community digs the well and uses it as its source of water. When a private person digs a well on his land, the water is likely to be considered as private property. In fact in most communities, people are encouraged to dig private wells in order to reduce the pressure on the community well during the dry season.

In rural Ghana digging a private well involves considerable expense. This can range between ¢250,000 and ¢400,000. This is far beyond the incomes of the average rural person. A person is allowed to charge members of the public who want to take water from his well. This can be at a commercial rate. The price of a bucket of water from such wells can range from between c10 to c 40.

Generally no permit is required to dig a private or a public well. In small towns however, where sanitation has become a serious problem, one needs to acquire a permit from a health inspector in order to dig a well. This is to prevent the citing of wells near refuse dumps to prevent water contamination.

The chief, elders and priests control, manage and regulate the use of water sources. In many communities, the rules for collecting water are commonsensical rules. For example, one cannot use a dirty bucket to collect water. In others, especially where the water source is a river, the rules take on a religious character. For example, women are not allowed to collect water when they menstruate. Generally, there are particular days and months when no one can go into the river or the sea. Some of these rules are meant to protect water quality and prevent the catching of immature fish. Sanctions for breach of rules include slaughtering of sheep, the provision of schnapps or the payment of fines to the elders.

Traditionally, water is used mainly for domestic purposes. Very little navigation is done on rivers and therefore the customary law of navigation is not well developed. Irrigation is also not a common form of farming technique.

Water from traditional sources is usually contaminated and generally leads to diseases like guinea worm infestation, bilharzia, river blindness and cholera etc.

Enforcement of customary law depends on the cultural habits of the locality. Generally enforcement is good if the community is homogeneous.

## 3.2 ACCESS TO WATER IN THE CUSTOMARY REGIME

In communities where there is no other source of water, 100% of households get their water from traditional water sources. As we have already indicated no one pays for water collected from such sources. Access to water and the amount one can collect depends on the time of the year. During rainy seasons when water from traditional sources is plentiful, it can take a person about 30 minutes to get water. She can also take as much as she can carry as long as she leaves enough for others. In the dry season when many traditional sources of water dry up, people have to walk long distances to fetch water. It can take about 2 hours to get water. There is also a limit on how much one can take.

There are serious health implications for getting water through traditional water sources. Water is usually contaminated with water borne diseases. Water is also stored mainly in barrels, buckets and open pans. Where water is not properly covered, flies further contaminate it, giving rise to diseases like cholera. The fact that containers used to store water are used for other purposes like washing also increases the health risks associated with storing water within the traditional regime.

## 3.3 SANITATION IN THE CUSTOMARY REGIME

One of the significant facts of rural life is the serious weakness in the provision of sanitation facilities. The places where refuse is disposed off are generally inadequate. They can be close to homes. The traditional places for defecating are small and unhygienic and most people defecate in the bush. Children are actually encouraged to defecate at refuse dumps. Most public places are littered with waste especially plastic. The sanitation problem compounds the public health situation leading to an increase in diseases like malaria and cholera.

The major cause of sanitation problems is the lack of institutions to deal with waste produced on a large scale. Communities lack the finances and expertise to dispose off large amounts of waste.

## 3.4 USER'S PERCEPTION OF THE CUSTOMARY REGIME

We can judge user's perception of the customary regime through user's views of the customary regime and their demand to be part of the Community Water and Sanitation Programme (CWSP), the statutory regime for providing water to rural communities.

Generally, most communities recognise the serious inadequacies of traditional sources of water and would like to become part of the CWSP. Their general complaints include the

quality of the water they have to drink, - its taste, its smell and its contents. They also realise that traditional sources of water bring diseases. They also complain of the long distances they have to walk and the time that has to be spent to get water. This is especially acute in the dry season. Children have to collect water in the mornings and by the time they have completed this chore, they are too exhausted to go to school. The fact that water is in short supply all year round affects general cleanliness and the social life of communities. Very few social events can be organised. Trained personnel like teachers are unwilling to accept posting to areas that lack clean water.

Many of them are making serious efforts to get into the CWSP. Some are concerned about the cost involved in getting into the CWSP but the overwhelming number of people think that the benefits of joining the CWSP far outweighs its costs.

## 4. NATURE AND STATUS OF WATER SUPPLY AND SANITATION PROVISION

### 4.1 ACCESS TO CLEAN WATER & SANITATION IN URBAN GHANA

Most people in urban areas rely on piped-borne water supplied by GWSC. According to the Ghana Living Standards Survey Round 3 (GLSS 3) 1991/2, 100% of households in Accra and 99.3% in Kumasi had access to pipe borne water (Rakodi C., 1996). Access to individual piped water depends on the degree of area planning and on the extent of ones wealth (Rakodi C, 1996, p 17). In 1991, in the Accra Metropolitan Area 59% of households had an indoor piped supply connection. All wealthy households had an individual supply and less than a quarter of such people shared their pipe connections with other households. 85% of middle income people and only 53% of low-income people had a private supply. Only 40% of middle income people and 9% of low-income people had exclusive use of their taps. 12% and 23% of middle and low-income people respectively, shared their supplies with more than ten other households. Public standpipes are generally uncommon. Only 8% of households had access to them. 28% of people had no direct access to a tap. 5% of middle income people and 34% of low-income households purchase water regularly.

Water is purchased from neighbours who have an in house connection. Although the time spent fetching water is half of what occurs in rural areas, households of Accra who do not have an on site connection spend about 8.4 hours per week on this task. As stated earlier on, under LI 1233, people have to apply to GWSC for an on site connection. The main constraint to getting a connection is the cost. In 1996, it cost about c 200,000 to get an on site connection. Consequently, there are several illegal connections.

Irregular supply and frequent shortages are well known in Ghana. Water does not usually flow during the day. It flows in the night. Residents have to leave their taps on in spite of the fact that when air passes through the taps, it causes the meter to read. People are then forced to pay huge bills even though the water has not been flowing. Sleep is usually disrupted for people who do not have an on site connection or have to share water with other residents. Typically, girls over 7 years and women are those who queue for water. Women spend about 18 minutes a day getting water, whilst it is 12 minutes for men. Boys between 7-19 spend about the same time as girls to fetch water. Older men rarely fetch water. In addition to the intermittent daily flows, water often flows only a few days in the

week. In some areas, interruptions can last for months. Interruptions affect all areas, irrespective of socio-economic standing.

Households have developed various strategies to deal with water supply interruptions. 96% of households store water. They use various types of containers including Jerry cans, pig feet containers, overhead tanks and buckets etc. 50% of wealthy people, 16% of middle income people and 3% of low income people use overhead tanks. It is possible to buy water from GWSC tankers or from private suppliers. This solution is available to the few people with overhead tanks and it is very expensive.

Other solutions to frequent water shortages are the purchase of water from areas where water flows constantly. This results in women walking long distances for water. The potential hazard to girls who enter the homes of strangers is a source of worry to many parents. Others use water from wells or collect stream water in rainy seasons. Some collect rainwater from roofs when it rains. Others recycle water within homes.

Storing water has important health implications. There is evidence of faecal contamination in some samples of tap water consumed. This is because connections are illegal or poorly fitted. Contamination of water as a result of in-house storage is also widespread. This is due to the fact that buckets used to store water are also used for other purposes. There is also irregular cleaning of storage containers. Failure to boil water and the frequent dipping of cups into water are other reasons for the contamination of water.

#### 4.1.1 Problems of GWSC

The major problem facing the Corporation is that it is a public corporation that has been subject to the dictates of politicians. Consequently water tariffs have for long been kept low with the object of protecting consumers (*Ghana's Water Resources p45*). Politicians have also used it as a source of patronage and public policy towards the Corporation has been geared towards satisfying political objectives instead of assisting the Corporation to be managed efficiently. It has therefore been extremely difficult for the Corporation to meet its operational and capital plans. The result has been low investment and a general breakdown of GWSC 's water delivery system.

There has been very little investment in equipment. In most regions billing is done manually. This creates opportunities for fraud and illegal use of Corporations funds. It is estimated that about 29% of the Corporation's customers are not billed. About 50% of meters do not work and the rate of revenue collection is low. About 30% of the Corporation's 207 systems are not operational and most of them have not been operational for more than a year. About 30% of the production systems are operating below capacity. By the year 2000, it is estimated that daily demand for water will be about 1,200 Ml/day. The Corporation's production is about 500 Ml/day. The Corporation however has an estimated capacity of only 600 Ml/day. There is thus significant under capacity to meet demand. Very few of the Corporation's production meters work. Consequently, its estimate of 43% of unaccounted for water is crude and is likely to be higher than is stated (*Halcrow Consultancy Report, 1995, p 11-13*).

#### 4.1.2 Consumer Perception of GWSC Services

The best measure of an enterprise's success is the satisfaction of its customers. Generally, GWSC has a very negative image among its customers. Customer-GWSC staff relations are

very poor. Customers attribute this poor relation to a management style that makes managers remote from their customers. Customers indicate that the quality of service has deteriorated significantly in recent years. In fact a survey conducted under the Ghana Assistance Programme (GAP) Willingness to Pay shows that only a third of respondents wanted GWSC to operate the delivery of water alone *(Halcrow Consultancy Report, 1995 p 45).*

Users overwhelmingly think that the quality of GWSC water is poor. They claim that the water has poor taste, it is discoloured and contains dirt and specks of rust *(Rakodi C. 1996 pp 20-21)*. Customers, particularly in Cape-Coast complain of the quality of GWSC water. Most of the customers who can afford it buy mineral water to drink. Although they recognise that the price of mineral water is about eight to ten times the price of GWSC water, they are willing to pay these high amounts to safeguard their health.

Cost was the worst complaint from consumers. They claim that they are not getting value for money. Bills are issued every month and disconnections enforced whether water flows or not. Consumers were angered by the lack of variations in monthly bills, regardless of how much water they used. Some were particularly angry that they had to pay for a fixed amount of 2000 gallons even if they used 200 gallons. Customers complain that no rebates or allowances are given to them when water supply is interrupted. Surprisingly, GWSC continues to increase tariffs while the quality of service deteriorates. .

In 1991, about 38% of Accra residents had metered supplies. 21% paid a fixed rate for a non-metered supply and 40% purchased water. The price of water is regressive and is inversely related to the quality of service provided. It discriminates against households who share a metered supply and favours wealthy households who do not share their supply. In 1991 poor households spent at least 10% of their incomes on purchasing water as against an average of 1.4% for all households *(Rakodi C, 1996 p22).*

Many urban residents indicated that they have complained to GWSC about the quality of their services. But there has been no improvement. Some do not even bother to complain since they are convinced that nothing will be done about it. GWSC fails to repair broken mains unless there is media attention. In some situations, they deliberately break the mains to disconnect customers who fail to pay their bills. If the mains are broken, consumers who want water have to buy the spare parts, transport the GWSC workers to the place of repairs, before they repair them.

Some consumers feel that they should be provided with bore holes either as their main source of water, or to supplement their pipe water system. Others argue that GWSC should not phase out the public pipes but should find ways of dealing with the problems of having public pipes. For them, GWSC does seem to be concerned about the plight of the poor (*Rakodi C, 1996, p22*)

Generally, it was agreed that water has to be paid for. Most customers are willing to pay more for an improved service. Consumers indicated that they would be willing to pay an increase in water charges if the water is purified, clean, and it flows 24 hours a day at a reasonable pressure. Some argued that since they pay taxes, they should get water free. Others argued that since water is a necessity, it should be available at cheap price. Middle income people were ready to pay increased water tariffs if there was a guarantee that the quality of service would improve. It was generally agreed that there should be no increase in tariffs until there was an improvement in the service quality.

Some believe that they would be better off if GWSC is turned over to a private operator. Consumers claim that they would be willing to invest in a private water company, as long as their investments are protected and there is significant improvement in the management capabilities of the new enterprise *(Halcrow Consultancy Report, 1995 p 46).*

### 4.1.3 Reform of Urban Water Sector

Government has been under pressure from donor agencies to reform water delivery in urban areas. This has resulted in the *Halcrow Consultancy Report* and the *Berger Report*. Until recently, the government was reluctant to privatise the whole urban water sector but was willing to commercialise certain operation including billings. It had also agreed to lease self-contained water systems from source to end user to private operators. Recently, however, there is evidence that under intense pressure from donors it has decided to privatise all utility companies including water.

The biggest problem facing these reforms is that there is very little debate about the reforms. Every step is shrouded in secrecy. Government, it seems is being forced to take a direction that it does not approve of. The general public has been kept in the dark about the directions of the reforms and consequently, there is very little public support for these measures. Institutions that deal with the water sector are unsure of what to do. This is creating problems of institutional planning and co-ordination.

#### 4.1.4 Sanitation in Urban Areas

There is no doubt that there has been a general failure to provide sanitation in urban Ghana. Tons of filth and refuse can be found all over Ghanaian cities and towns and this is a testimony to the failure of local government to fulfil its mandate in this area.

The reasons for the failure to deal with sanitation are varied. First, within the last ten years there has been a phenomenal growth in the urban population. This has resulted in increases in the production of waste. The development of unplanned dwelling places has affected the ability of local governments to collect the waste generated. Increased economic activity and particularly the use of plastic as containers, has resulted in the production of waste that cannot naturally decompose. All this has had an impact on the abilities of local government to deal with urban waste.

Government budgetary allocation to local governments has also fallen drastically in real terms. As a consequence of decentralisation, local governments are now responsible for the payment of its staff. As part of the structural adjustment programme many local governments have been forced to retrench their employees. This has included a large number of sanitary workers.

There is no doubt that sanitation has become an almost impossible task for local authorities

## 4.2 ACCESS TO CLEAN WATER & SANITATION IN RURAL GHANA

### 4.2.1 Community Water & Sanitation Programme (CWSP)-objectives

The CWSP assists communities to improve their capabilities to meet their demand for clean water. It ensures that there is a minimum basic service of water that is protected all year-round, of 20 litres per capita per day, within 500 meters for consumers living close to a water point. A water point must not serve more than 300 persons (CWSP Implementation Manual, 1996 p1).

The CWSP is a demand driven programme. Communities are expected to participate fully in the programme in order to sustain it. They are supposed to organise themselves by contributing financial and human resources to ensure the success of the programme. Consequently, only communities that are willing to contribute to part of the cost of providing the service (generally 5%) and who are ready to pay for the maintenance of the facilities provided, become part of the programme. Women, as the primary collectors and users of water, are given a central role in the design and management of water facilities. The private sector has the responsibility to design, construct, and maintain the facilities. NGOs play an important role by providing training in the management and repair of water facilities. The programme integrates health, sanitation, and hygiene education in order to maximise the benefits that can accrue under the programme. As we have already indicated, local government authorities are closely involved in the programme. They provide infrastructure and organise the institutions necessary for effective and efficient utilisation of water resources.

### 4.2.2 Institutional Structure of the CWSP

Every village or community that is part of the programme must form a water and sanitation (WATSAN) committee. The WATSAN is responsible for all operations connected with the control and maintenance of the water and sanitation facility. It organises hygiene and environmental education. It is also responsible for the revenue collection. Contractors construct the water and sanitation facilities for the WATSAN. Mechanics also provide spare parts for repairing the water and sanitation facility.

A District Water and Sanitation Team (DWST) which is part of the local government assists in facilitating the provision of water and sanitation. Members of the DWST are residents of the district and have skills in hygiene education and water and sanitation issues. The District Assembly supervises the DWST to ensure that they provide the services required by the WATSAN. The District Assembly maintains a dialogue with the CWSA (Community Water and Sanitation Agency) and other bodies that deal with the provision of water in the district.

The Regional Water and Sanitation Team (RWST) is responsible for implementing the CWSP in the region. Their most important duty is to assist District Assemblies to form and train the DWST. It is the responsibility of the RWST to determine the specific character of the water and sanitation programme in a particular region. They decide the districts and communities that would benefit from the programme in any particular year.

The CWSA has a national office in Accra. It makes recommendations to the government about policies for rural water and sanitation in Ghana.

### 4.2.3 How to Benefit from the CWSP

Information on the CWSP is distributed to communities. If a community decides to become part of the programme, it fills the forms and sends it to the DWST. The DWST visits the community to ascertain the extent of the community's interest in the programme. A sub-committee of the District Assembly reviews the community's application. From there, the application is sent to the RWST for approval.

If the RWST approves the application, an animation team is sent to the community to train the community on the management of the water facility. The community must then mobilise its share of the funds required to implement the project. If it is unable to raise the funds, the programme is suspended until this is done. If the funds are available, the animation team and the community, produce a 'Facilities and Management Plan' which sets out the design of the water and sanitation facility and a plan about how the project is to be financed. The plan also deals with hygiene education. Both the DWST and the RWST must approve the plan.

After the RWST has given its approval, contractors build the water facility. The completed facility is handed over to the community, but the contractor has to make good any defects in the facility's construction for the next twelve months.

#### 4.2.4 Access to Water under the CWSP

In most communities under the CWSP about 95% of people use the boreholes or hand dug wells provided under the programme. The other 5% use the traditional wells and the traditional sources of water. The water provided under the CWSP has to be paid for and the amount paid is determined by the WATSAN in consultation with the community. It ranges from c 10 to c 30 per bucket. The sale of water has been so successful that some communities have used monies from their water fund to embark on other development projects. No community has complained about a long interruption in their supply of water under the programme. When interruptions occur, it is due to the breakdown of a part. This is however quickly repaired because of the training given to women in repairing of facilities. Problems may occur in the future when spare parts are not distributed as part of the programme. Generally, women spend less than 15 minutes to fetch water.

Storage of water continues to be a big problem. Water is stored in barrels, buckets and open tanks and this can lead to water contamination. In fact while there has been a serious reduction in guinea worm infestation, there is still a problem with cholera and typhoid.

Another weakness of the CWSP is the weak institutional capacity of local governments. Local government has not shown the level of interest that was expected from it under programme. The creation of DWSTs has been extremely slow. This has affected the progress of the programme.

#### 4.2.5 Sanitation under the CWSP

Again, sanitation is a very serious problem in communities under the CWSP. There are two reasons for this. First, the CWSP has concentrated too much on the provision of water. In fact the provision of sanitation facilities has not been given the prominence that it deserves. Second, because of the demand driven nature of the programme, communities have to demand sanitation facilities before they are given to them. The provision of

sanitation facilities is extremely expensive for rural populations. A personal toilet will cost about c 1.2 million. This is far beyond the means of most rural dwellers. It is not surprising that many communities under the CWSP have not requested for sanitation facilities and continue to defecate in bushes, thus undermining the programme.

#### 4.2.6 User Perception of the CWSP

Communities under the CWSP are generally satisfied with the quality of service they get under the programme. . They are content with the quality and the amount of water that they get from bore holes or hand dug wells. A few communities have complained about the salty nature of their water, but these are in the minority. No community has complained about interruptions in their water supply. Some community members complain about the fact that they now have to pay to get water. This is due mainly to the culture of dependence that developed when government supplied everything. Such complaints also come from a minority of members. Most people agree that if the programme is to be sustained, there must be funds to repair broken down parts when this occurs.

They have been general complaints about the cost of getting sanitation facilities. Many people argue that this is too expensive. They believe that the state must subsidise the provision of such facilities, especially toilets. There is some basis to this position. Acquiring sanitation facilities is very expensive for people in rural areas. Adequate sanitation is essential if communities are to reap the full benefits of the CWSP. If the CWSA holds rigidly to the demand driven approach, the whole programme can be undermined because of inadequate sanitation facilities.

### 4.3 ASSESSMENT OF THE VARIOUS REGIMES

We now have to assess the various regimes for delivering water to people in Ghana. Do they take an entitlement view of water? Do they have mechanisms for alleviating poverty? How do they ensure that the environment is protected and water quality is maintained? Do they have a workable system of water conservation and what role is given to women in the management of water resources?

#### 4.3.1 Assessing GWSC Performance

Before the 1990s, GWSC was basically a public corporation that was part of the public sector. Due to this role, it took an entitlement view of water. Service to most poor urban areas was free, whilst service for homes with on site connections was subsidised. This led to misuse of water and low cost recovery. With the advent of structural adjustment and the commercialisation of its services, GWSC is now taking a very commercial approach to the delivery of water. Tariffs have increased substantially over the last few years and most standpipes in poor urban areas are being discontinued. GWSC has employed vendors who control the few remaining standpipes. These vendors sell water to customers. Presently, if one does not have the means to purchase water, one simply cannot get it legally. For those who have no access to GWSC vendors, they have to purchase water from private vendors who make huge profits from selling water.

Since there are no mechanisms for providing water at reduced tariffs to the poor, there is clearly an anti-poverty alleviation dimension to present urban water policy. In fact access to

water for the poor has been greatly reduced through the combination of the phasing out of public standpipes and increased water tariffs. GWSC argue that this is necessary in the short term to save the Corporation from collapse. After it has corrected its balance sheet and it has been able to attract investors, it would be able to provide a more reliable service and also provide a subsidy for the poor in urban areas. There may be a basis for these arguments. In the short term however, it is fair to say that urban water policy has not been in favour of the poor.

GWSC has also been unable to ensure water quality. This has been due in part to its lack of funds to meet its basic mandate. The second reason is even more fundamental. Ghana's population has grown rapidly since independence. In the last 15 years, there has also been intensified economic activity nation wide. This has led to severe pressure on land. Haphazard urban development has contributed to poor land use. These issues affect the environment and water quality. Unfortunately, GWSC has no control over such events. These problems have made its ability to control water quality an impossible one.

For the reasons stated above, GWSC has also been unable to play its role as a conservator of water. As we indicated earlier on, the Corporation claims that 43% of its water is unaccounted for. However, conservation has not been a major concern in Ghana because of the myth of an abundance of water. As the population increases and demand for water grows, there will be the need to provide strong conservation measures to protect the country's water resources. It is hoped that the Water Resources Commission and the Environmental Protection Agency that have just been set up, will combine effectively to deal with the environmental problems of water resource management.

In urban areas, the gender problem is not as acute as in rural areas. Still women without on site connections spend considerable time to get water. With increasing tariffs and with the closure of many standpipes, there is bound to be increased pressure on women. They may have to walk longer distances to get water. They will also have to spend a lot more time and more money to purchase water.

Another important issue is access to water and sanitation for the urban poor. Our discussions suggest that they have little access to water. The service they get from GWSC is also extremely poor. No arrangements have been made to capture the particular concerns of this socio-economic group.

### 4.3.2 Assessing the CWSP

How does the CWSP fare according to the issues raised earlier on in the paper? It seems that the CWSP is moving away from an entitlement view of water. Unless a community is ready to pay its contribution for the water facility and is prepared to maintain it, it does not become part of the programme. Water from the facility is also sold to community members. Presently, there is no mechanism for allowing people who cannot afford to pay for water to get it for free.

The CWSA has an effective answer to this criticism. They claim that lessons from the past indicate that when facilities are provided for free, water and water facilities are misused. It is difficult to have an effective answer to CWSA position on the entitlement problem. However, there is no doubt that there are people in rural communities who cannot afford to pay for water. If mechanisms are not provided to get water to them at subsidised rates, they will

continue to use the traditional sources of water and may acquire infectious diseases. When this occurs, it would undermine the whole programme.

NGOs have also complained about the rigidity with which the CWSA insists on the satisfaction of the financial side of the programme. They argue that a community's commitment to water and sanitation cannot be measured by the amount of money it can raise alone. Willingness to contribute in other ways like the provision of labour, etc ought to be also used in assessing whether a community is committed to the programme or not. In fact, some NGOs claim that rigidity of the CWSA on the finance side, is preventing communities that are ready to 'own' their water facilities from getting access to water (Interview with Country Director of WaterAid).

Has the CWSP assisted in poverty alleviation? Formally, we shall state that the CWSA is a realistic programme. It allows communities to prove their commitment to the programme. In this sense it does not provide free access to water. However, the conditions that have to be fulfilled are not too stringent. Only extremely poor communities will find it difficult to meet these conditions. Substantively, there is evidence that the CWSP has greatly improved the conditions of life in rural communities. Communities under the CWSP have drastically reduced diseases like guinea worm infestation. The provision of water has also improved personal cleanliness and socio-economic life in these communities. Trained personnel like teachers are now willing to accept postings into these areas. There has been a marked improvement in school attendance by children (Ababio R. A., 'Rural Water and Sanitation: A Case Study of Eyisam, Abontsen and Ekumfi Dunkwa in the Mfantsiman District of the Central Region of Ghana', 1996).

Environmental protection and water conservation are however still major problems in communities. Communities make rules to protect the quality of water that comes from the water facility. For example, one cannot wash near the water point, or use a dirty receptacle to collect water. However, communities cannot handle the complex problems of water conservation and environmental protection. There is also a serious problem of low capacity of District Assemblies to protect the environment and safeguard water quality at local government level. They have neither the personnel, nor the funds, nor the equipment to handle these complex tasks. On the national scale water conservation and water quality protection have to be to be handled by institutions such as the Water Resources Commission and the Environmental Protection Agency.

The CWSP has made major achievements in solving the gender problem. Women are given prominent roles in the design and management of water facilities. They are generally responsible for repairing water facilities. Due to the fact that a water facility is not supposed to be more than 500 metres from the community, it drastically reduces the distance and the time that is required to get water.

### 4.3.3 Assessing the Customary Regime

As we have already indicated, there is no charge for collecting water from a customary water source. A person can take as much water as she can carry as long as she leaves enough for others. This is an entitlement view of water. This entitlement view is due partly to the fact that very little investment goes into collecting water from customary sources. But this is not the only reason. It is also due to the recognition that water is essential for human survival. And this can be seen in the different attitudes towards water during the dry and wet seasons.

In the wet season when water is plentiful, one can take as much as one wants. During the dry season when water is scarce, water is still not sold but there are limits on the amount that one can take.

Customary law is however not rigid. It recognises that natural and public sources of water cannot satisfy a community's demand for water. It allows private persons to invest in water. Such people can charge a fee for their investment. Presently, there is no regulation of water charges in the customary regime. Regulation may be unnecessary because there is not a great demand for private water. Private persons may also have recognised the special nature of water and are not charging excessively for its provision. We shall therefore state that the customary regime takes a *realistic* view of water. It allows water from public sources to be available to all without charge. It recognises however that demand can outstrip supply and therefore allows private persons to invest in water and charge a fee for providing it to the market.

Does the customary regime solve the poverty problem? We shall argue that formally, it tries to solve the poverty problem. However, substantively, the customary regime actually aggravates poverty. Formally, water from natural and public sources is available free of charge. As long as water is available, a person is not denied access to it. The problem with the customary regime is that water from traditional sources is not available all year round. It is also the source of many diseases. It is also difficult to increase the supply of water to meet increased demand as populations grow. Sanitation under customary law is also seriously inadequate. Traditional methods of disposing waste cannot handle increased generation of waste. All these problems lead to diseases in rural areas and affect the economic lives of communities.

Within the traditional regime there are measures to control pollution. Human settlements are located away from water sources. This, as we have already indicated, is to prevent water sources from being used as sewers. There are days and months when one cannot go to the river. This is supposed to prevent the depletion of fish stock. One cannot use a dirty bucket to collect water. Women who menstruate cannot go into rivers etc. Within the limits of traditional knowledge, attempts are made to control pollution and maintain water quality.

How effective are these methods? The answer is that they are generally ineffective. With increasing population growth, many human settlements are now close to water sources. Poor land use methods have destroyed the environment. Mining and other industrial activity have generated waste that can be controlled under the customary regime. Generally as the population becomes educated and less homogeneous, taboos and religious sanctions that form the basis of the punishment under the customary regime are also ignored.

In the customary regime, water conservation has been unnecessary because of the low level of technology that is used to get water. Traditional wells do not go deep enough to deplete the water table. The natural water cycle regulates the amount of water available. However, with the availability of sophisticated technology that can take water from underground, dam rivers and divert watercourses, traditional conservation methods are also likely to become irrelevant.

How does customary law deal with the gender problem? One would be tempted to say that customary water law is anti-female. Many of the rules refer to women and try to restrict their ability to get water. A critical look at the situation suggests that this is not actually the case.

Many of the rules refer to women because they are the primary collectors of water. Many of the rules – for example, the fact that women cannot collect water when they are menstruating - are meant to protect water quality.

However, while one can argue that customary law is not anti-female, it is definitely not pro-female. In spite of the important role women play in collecting water, the customary regime gives them no special role in its management. Nothing is done to relieve the pain associated with collecting water. Women must trek long distances to get water especially during dry seasons. This affects their economic activity and quality of life.

The major strength of customary law is its attitude towards the issue of entitlement. It is an important lesson that has to be learnt. If we can graft it on to the CWSP, it would significantly improve its ability to solve the problem of poverty alleviation. Generally, we shall conclude that customary water law is not an adequate regime for providing water to rural people in Ghana. It is unable to provide water all year round and is the source of diseases. Due to population growth and increased economic activity, its conservation and water quality control methods are inadequate. It does not also provide a special role for women in the management of water resources.

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

From the discussion, it is clear that the CWSP has been a relative success whilst the provision of water to urban areas has been a relative failure. The provision of water under the customary regime is also facing serious challenges. We now have to answer the following questions: 'which conditions have enabled the CWSP to be a relative success?' 'Why has the provision of water and sanitation to urban areas and under customary law been relatively unsuccessful?'

### 5.1 ENABLING CONDITIONS

The major enabling condition for the success of the CWSP has been the general consensus among stakeholders that increasing the supply of water and sanitation to the poor is essential if there is to be an improvement in the standard of living of Ghanaians. Effective policies and strategies are being developed to implement the programme of providing water and sanitation to as many communities as possible. There is constant inter-action between donors, the government and NGOs to review progress in the implementation of the CWSP.

As we have already indicated, the management of water resources is a multi-faceted enterprise and it involves a number of users and institutions. Until recently, different users and institutions pursued their mandates with very little co-ordination among themselves. There are now genuine attempts to integrate policies and strategies to ensure that the provision of rural water is managed in a multi-faceted manner. The CWSA consults with District Assemblies when it is developing its policies. Local communities are involved in the design and implementation of the programme. The private sector is given a prominent role to play in the supply of facilities. One of the major weaknesses of past water and sanitation programmes were attempts to separate water supply from sanitation issues. As part of the multi and inter-disciplinary approach to water management, water supply,

sanitation and hygiene issues have been brought together to ensure that communities reap maximum health benefits from the programme.

An issue that has increased public awareness of the importance of water and sanitation issues and has encouraged the government to tackle the problem seriously, is the democratisation process. Ghana has had two elections in the 1990s. The introduction of competitive politics has helped to improve the supply of water to rural areas in two ways. First, democracy has opened the political space and provided opportunities for civil society to contribute to debates on the future of the country. The press has highlighted the problem of access to water and sanitation to the poor in rural areas. Reports of outbreaks of guinea worm disease, cholera and typhoid fever are given prominence in the media. NGOs dealing with the provision of water are informing the public about the importance of the issue.

Democratisation has also led to the need for government to develop new constituencies to bolster its position in the electoral system. Structural adjustment has generally had a negative impact on urban dwellers. Government is now developing its support in the rural areas. This has meant satisfying rural needs and one of the most important needs of the rural populace is the provision of clean water. Government has consequently taken seriously the provision of potable water to as many rural communities as possible (see Herbst J., 1993, for a discussion of the Politics of Reform).

Community participation in the provision of water and sanitation has also greatly improved the sustainability of water supply programmes. This bottoms-up approach has a number of important dimensions. First it is a demand driven approach. Unless a community wants water and sanitation facilities, it does not become part of the programme. Communities must also be prepared to pay part of the cost of providing such facilities and they must be ready to pay for their maintenance. Water is sold to community members and the funds collected are used to maintain water and sanitation facilities. Tariffs are determined by WATSANs in consultation with communities. Women as the primary collectors of water are given special roles in the management of water facilities. Community participation through the bottoms-up approach has been the greatest strength of the CWSP.

## 5.2 CONSTRAINTS

There are a number of constraints that have made providing water and sanitation difficult and these are seen clearly in the provision of water in urban areas. Unlike the provision of water to rural areas, there is no consensus about the direction of the reforms for urban water delivery (for example seeAmis P., 1998 for general discussion on the reform of the urban water sector). There is a general acceptance that GWSC has failed to fulfil its mandate. The question is the direction of future reforms. Donor agencies wish to see complete privatisation of the urban water sector, whilst the government wishes to commercialise certain operation in urban water delivery whilst maintaining GWSC as a public corporation. There has been very little debate about the reforms in the media. It is unclear whether the general public understands what is going on or support the specific reforms that are being proposed.

The lack of consensus about the nature and direction of the reforms is creating another problem - uncertainty about the environment in which the delivery and regulation of water

and sanitation should take place. Government policy in this area is changing constantly as a result of pressure from donor agencies. Until now, the general belief was that government was commercialising certain parts of the operations of GWSC. We are being told now that GWSC is to be completely privatised.

The lack of firm policy on urban water is also affecting the co-ordination of policies and strategies in urban water delivery and is also affecting the relationship between institution that play an important role in the urban water sector. As we have already indicated there are several institutions involved in the delivery of water. There is the need for co-ordination of the activities of these institutions. Municipal authorities have responsibility for providing the infrastructure for the delivery of water and sanitation. Public health authorities have a duty to ensure that water is wholesome for human consumption. There is the need for an adequate lands policy that will control urban development and ensure to provision of water and sanitation to homes in urban Ghana. The fact that there is uncertainty about the direction of urban water policy means that there is no policy to be co-ordinated.

The provision of water in urban areas also faces other important problems. There is inadequate funding for the provision of water and sanitation facilities to urban areas. Political interference in tariff policy in the past has meant that GWSC has been unable to meet its cost. There has been very little investment in human or material resources to ensure that water is delivered effectively and efficiently. Presently, tariffs are determined by GWSC in consultation with the PURC. Present tariffs policy is moving in the direction that would allow GWSC to meet its cost. The effectiveness of the tariff structure and the work of the PURC will depend on the regime in which GWSC delivers water. As we stated earlier on, uncertainty in this area is creating problems for urban water delivery.

The major constraint facing customary law is that it is overwhelmed by the problems of modernity. It never anticipated the rapid increase in population and therefore the increased demand for water. It has also been unable to handle the complex environmental problems that we face today.

## 6. CONCLUSIONS AND RECOMMENDATIONS

We have discussed the legal environment in which water and sanitation is provided to rural and urban communities in Ghana. We noted that customary water law is strong on the issue of entitlement. However it is not able to deal adequately with the problems of poverty alleviation and the environment. The statutory regime for the supply of water and sanitation in urban areas has been unable to deal adequately with the problems of entitlement, poverty alleviation, the environment and problems which women face when they collect water. The CWSP has been able to deal adequately with the problems of poverty alleviation and the role of women in water management. It has taken a realistic attitude towards the problem of entitlement. It has however been unable to deal with the environmental problem.

We have also argued that the reasons for the relative success of the CWSP has been due to the general recognition of the importance of providing water to rural people, the adoption of a bottoms-up approach, the involvement of communities in the design of the programme, the demand driven nature of the programme and the active role given to

women in the programme. The failure of the customary regime is due to the fact that it is overwhelmed by problems that were never anticipated within the regime. The failure of the statutory urban regime has been due to the lack of consensus about the future of urban water delivery, inadequate funding for the urban water sector, lack of co-ordination between the various institutions set up to deal with the sector, the complexity of the environment in which water has to be delivered and inadequate political will to push in the reforms in the direction suggested by donors.

The next important question is: 'how can the delivery of water and sanitation facilities be improved in rural and urban Ghana?' The answer lies in doing more of the things that have led to the success of the CWSP and refraining from continuing the policies that have led to problems in urban water delivery.

We must continue to deepen community participation in the provision of water and sanitation facilities. The contribution of local communities to the success of water and sanitation programmes should never be under-estimated. They bring a wealth of knowledge about the local environment that can never be provided by an outsider.

It has been argued that the major difficulty facing the urban water sector has been the lack of consensus about the direction that reforms should take. It is important for donors to take a realistic view of the speed and the direction in which public policy reform can occur. Successful reforms are likely to be slow and incremental. The donor community must encourage country-led solutions to the problems of the urban water sector, instead of insisting on models developed from theoretical frameworks that may have no relevance to a developing world situation. It is also extremely important that donors appreciate the sensibilities of the local social and economic environment. Reforms that do not have local support are unlikely to succeed.

There is also the need to give special emphasis to the problems of the urban poor in the design of programmes for providing water and sanitation to urban areas. It seems that very little concern has been given to them within the reform programme. It is generally assumed that urban water delivery can be operated as a commercial concern without considering the full impact of complete commercialisation on the lives of the urban poor.

One of the major weaknesses in the development of strategies to enhance the delivery of water and sanitation has been inadequate interaction between researchers and policy makers. Policy makers consider themselves as practical people who have no patience for the theorising of intellectuals. Intellectuals study public policy within theoretical frameworks without contact with policy makers. The need for contact is particularly important in Ghana where information is extremely difficult to acquire, either because government officials are unwilling to provide information or because information management is extremely weak. There is no doubt that there will be mutual benefits if there is more interaction between researchers and policy makers. Policy makers can help clarify issues that are difficult for intellectuals to understand whilst intellectuals may develop models through which public policy progress can be assessed.

It is of course essential that more studies be conducted about the problems of access to water and sanitation facilities in developing countries, with a view to improving access and sustaining the reforms going on in this area. Some of the very important questions include; the extent to which the customary regime can be adapted to deal with the new

problems that are coming up in the delivery of water and sanitation. It is also obvious that we are moving towards a commercial view of the delivery of water and sanitation. There are likely to be attempts to extend reforms towards full cost recovery in rural areas and to profit making in urban water delivery. An important question is how to balance the need to recover cost or profit in water provision and the need to ensure adequate protection for vulnerable people for such a basic commodity like clean water. Would it require legislation to provide a certain basic amount of water to the poor at an affordable rate or should it be left to the market? Must the state insist that the poor in rural areas get a certain amount of water for free?

The second important problem is the capacities of the regulatory institutions that have been set up to manage water resources in Ghana. ? How effective are they likely to be in managing the water resources of Ghana? It is also important to study how they implement their mandate. How far should concern for the poor feature in their policies? How much discretion is available to them and how do they exercise this discretion? Is there a mechanism in place to ensure that regulatory bodies act reasonably and do not abuse their powers? Are they likely to be captured by the water industry? How influential is politics, especially the influence of donor institutions in the formulation of regulatory policies? These are important issues that have to be grappled with.

# APPENDICES

## A : Table Indicating Status of Legal Regimes in relation to Water Delivery

| | | **Poverty alleviation** |
|---|---|---|
| **Customary** | **Adequate** | **Not adequate** |
| Entitlement | √ | |
| Supply | | √ |
| Conservation | | √ |
| Gender | | √ |

| | | **Poverty alleviation** |
|---|---|---|
| **Statutory: urban** | **adequate** | **Not adequate** |
| Entitlement | | √ |
| Supply | | √ |
| Conservation | | √ |
| Gender | | √ |

| | | **Poverty alleviation** |
|---|---|---|
| **Statutory: rural** | **adequate** | **Not adequate** |
| Entitlement | √ | |
| Supply | √ | |
| Conservation | | √ |
| Gender | √ | |

## B : Bibliography (list of documents/reports/papers)


1. Ababio R. A., 'Rural Water and Sanitation: A Case Study of Eyisam, Abontsen and Ekumfi Dunkwa in the Mfantsiman District of the Central Region of Ghana', June 1997, Department of Economics and Business, University of Cape-Coast.
2. Agyeman-Duah R., K. S. Bentsi-Enchil, R. P. Fuseini, I. A. Tetteh and J.K Ellis, 'The Impact of Structural Adjustment Program (SAP) on Rural Water and Sanitation in Ghana: Case Studies of Suntreso (Amansie West District) Gomoa Mprumem (Gomoa West District) Shigu (Tamale District) Ogbojo (Tema District) and Gomoa Ankamu (Gomoa West District), June 1998, Department of Business, University of Cape-Coast, undergraduate dissertation.
3. Amis P., Urban Water Supply, Ghana Water and Sewerage Corporation, The Role of Government in Adjusting Economies, Development Administration Group, School of Public Policy, University of Birmingham, 1998.
4. Amoaku B., S. Adu Gyamfi Kumaning, G. Boakye, S. Agyei and J. R. Ankrah, The Impact of Structural Adjustment on Rural Water Supply and Sanitation: Case Studies of Mfuom (Upper Denkyira District) Antoakrom (Amansie West District) Asikasu (Dormaa District) and Adda (Tano District) June 1998, Department of Business, University of Cape-Coast, undergraduate dissertation.
5. Berger Report 1998, Increased Private Sector Participation in the Urban Water Sector, Presented to the Ministry of Works and Housing, Republic of Ghana.
6. Community Water and Sanitation Programme: Implementation Manual, Ministry of Works and Housing, Government of Ghana, 1996
7. Ghana Environmental Action Plan (vol.), Environmental Protection Council, 1991.
8. Ghana's Water Resources, Management Challenges and Opportunities, Water Resources Management Study, Ministry of Works and Housing, 1998.
9. Halcrow Consultancy Report 1995, Consultancy services for the Restructuring of the Water Sector, Final Report by Halcrow and Partners for Republic of Ghana, Ministry of Works and Housing.
10. Herbst J., The Politics of Reform in Ghana, 1982-1991, University of California Press, 1993.
11. Mensah K.B., Restructuring the Delivery of Clean Water to Rural Communities in Ghana: The Institutional and Regulatory Issues' to be published in Water Policy.
12. Ofori Boateng J., 'Environmental Law: Ghana Water Laws', [1977] Review of Ghana Law, vol. IX, 1 April pp. 11-44.
13. Rakodi C., The Opinion of Health and Water Service Users in Ghana, The Role of Government in Adjusting Economies, Paper 10, Development Administration Group, School of Public Policy, University of Birmingham.

## C : List of Statutes

- Ghana Water and Sewerage Corporation Act 1965, Act 310.
- Water and Sewerage Regulations 1979, LI1233.
- Local Government (Assin District Assembly) (Establishment) Instrument, 1988.
- Environmental Protection Agency Act 1994, Act 490.
- Water Resources Commission 1996, Act 522.
- Public Utility Regulatory Commission Act 1997, Act 538.
- Local Government Act 1993, Act 462
- Local Government (Urban, Zonal and Town Councils and Unit Committees) (Establishment) Instrument, 1994 LI 1589.
- Community Water and Sanitation Agency Act 1998, Act 564.

## D : Organisations Contacted as Part of This Research

1. Water Resources Commission, Ghana
2. WaterAid
3. Regional Water and Sanitation Team, Central Region Cape-Coast
4. District Health and Sanitation Team Assin Foso
5. Municipal Water and Sanitation Team, Cape-Coast
6. Ghana Water and Sewerage Corporation Cape-Coast
7. Communities in Assin Foso District
8. Communities in Cape-Coast District