



# **URBAN SECTOR ASSESSMENT REPORT**

**August 2008**

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## **Acronyms and Abbreviations**

<b>UWSS</b>	.....	Urban Water and Sanitation Sector
<b>CSO</b>	.....	Civil Society Organizations
<b>PPED</b>	.....	Public Policy and Education Department
<b>PURC</b>	.....	Public Utility Regulatory Commission
<b>GPRS</b>	.....	Ghana Poverty Reduction Strategy
<b>WAC</b>	.....	Water for African Cities
<b>GPRS II</b>	.....	Growth and Poverty Reduction Project
<b>AMA</b>	.....	Accra Metropolitan Area
<b>WMD</b>	.....	Waste management Department
<b>CP</b>	.....	Country Programmes
<b>MDG</b>	.....	Millennium Development Goal
<b>WSS</b>	.....	Water and Sanitation Services
<b>GWCL</b>	.....	Ghana Water Company Limited
<b>UFW</b>	.....	Unaccounted for water
<b>GDHS</b>	.....	Ghana Demographic and Health Survey
<b>HDR</b>	.....	Human Development Report
<b>MWRWH</b>	.....	Ministry of Water Resources Works and Housing
<b>UWF</b>	.....	Urban Water Financing
<b>WHO</b>	.....	World Health Organization
<b>UN</b>	.....	United Nations

## GLOSSARY

- Sanitation agencies:** All organizations involved in the provision of sanitation services. These include local authorities; central government ministries and departments; private sanitation companies; non-governmental organizations; and community based organizations.
- Sanitation:** The principles and practice relating to the collection, removal, and disposal of human excreta, refuse and waste water, as they impact upon users, operators and the environment.
- Institutional:** Concerning administrative and decision-making structures, systems and bodies.
- Urban Poor:** People who live in informal settlements of the urban and peri-urban areas. Nevertheless, it should be noted that a few residents of such areas are relatively wealthy.
- Urbanization:** The process of becoming urban; a process by which an increasing proportion of an area's population becomes concentrated in urban areas.
- Informal settlements:** Poor urban settlements such as slums, shanty-towns and peri-urban areas. These are characterized by high population densities; poor housing, sewerage and drainage facilities.
- Safe drinking water :** Water that is safe to drink and available in sufficient quantities and hygienic

## Executive Summary

WaterAid is rolling out an Urban Water and Sanitation Services and Sector Assessment. The purpose of the assessment is to create a better understanding of the urban water and sanitation sector (UWSS) for improved programme and advocacy intervention. WaterAid country programmes participating in the process are conducting in-country studies to generate the required information across national, city and poverty pockets (slums and informal settlements) of the city. The studies recognize that the information required for the assessment exists in bits and pieces from previous studies conducted by WaterAid and other stakeholders. This notwithstanding, there is a dearth of information on the users' perceptions on service quality, sector policies, and levels of community participation among others. This phenomenon has the tendency to blur the picture on the level of urban sector services for the Accra Metropolitan Area, the selected city of study for the assessment in Ghana.

A literature review report summarized the desk review of available literature on the national, city and poverty pockets under the first phase of the study. Focus group discussions and key informants interviews were also conducted to fill the gaps in information and triangulated the findings from the literature review before the analysis for this assessment was done.

## Research Findings

The health status of a community and the well being of its residents are dependent on the availability of and access to quality and affordable water and sanitation services. The environmental health profile of most urban communities in Ghana is characterized by the predominance of infectious and communicable diseases related to inadequate water and sanitation provision. Diseases commonly reported in these areas include diarrhea, skin diseases, malaria and intestinal worms. Attempts at improving urban water supply and sanitation services in Ghana have been overwhelmed by the 4.5% urban population growth rate, due mainly to the massive influx of rural migrants who settle in slum areas.

Ghana has made considerable progress in improving governance, developing policy and institutional frameworks and building capacity in the water sector. However, WSS financing in the past has been about a third of required investments, implying that Ghana could be on track to achieve the MDGs if more funding is made available and reform efforts are continued. (*Getting Africa on track to meet the MDGs on water and sanitation.. Page 25*)

In 2006, Ghana's water supply coverage was 75% (52 percent rural/small towns and 88 percent for urban areas but 37% household connections). For sanitation, coverage was 35% (32 percent for rural/small towns and 40 percent in urban). The total cost to achieve 85% coverage is estimated at US \$ 1.6 billion- an annual US\$ 68million for the rural/small towns WSS, and US\$ 81million for urban water supply. (*Getting Africa on track to meet the MDGs on water and sanitation. Page 25*).

Hence, Ghana faces a major funding challenge in addressing its WSS crisis. Although WSS is clearly articulated in national strategies and expenditure frameworks, the link between targeted goals and resource allocations remains limited. Further, the WSS sector is heavily dependent on donor funding (over 90%) and there is little predictability of sector inflows. (*Getting Africa on track...*, pg27).

In the urban area, Ghana faces serious constraints to meeting the challenge of providing adequate water for all residents. These include the dire and worsening financial condition of the urban utility. The Ghana Water Company Limited (GWCL) has suffered insufficient sector investment over the last ten years. This is furthered exacerbated by weak management and implementation capacity caused by human resource issues.

Approximately 10.7 million people (53%) have access to improved water supplies in Ghana. Sixty one percent of the 8.4 million residents in the country's urban areas have improved water supply services provided by GWCL's networks. Hence, 3.3 million urban residents in Ghana depend on alternative water sources. (Ghana Water Sector Assessment, 2005) [www.wateraid.org](http://www.wateraid.org)

With GWCL's unaccounted-for water (UFW) at about 50% of total output, the volume of water that is effectively sold is 280,000m<sup>3</sup>/day. This figure is about a third of the daily demand of 763,300m<sup>3</sup>. It is conceivable that a fair percentage of UFW (the portion considered to be administrative leakage), is also used by urban residents. But, as demonstrated by widespread rationing, there remain an acute shortage (Ghana Water Sector Assessment, 2005) [www.wateraid.org](http://www.wateraid.org).

Several factors have been responsible for this present state of affairs some of which include:

- ✓ Increased urbanization, which is putting tremendous pressure on existing utilities;
- ✓ Previously low tariffs which affected GWCL's ability to renew its facilities and carry out expansions in water supply;
- ✓ Management challenges including low revenue collection; and
- ✓ Ineffective mechanisms to expand the water network and ensure accessibility to potable water supply to low-income and peri-urban consumers.

### **Water Services in poverty pockets**

In Ghana's urban areas, it is commonplace for the poor without direct services from the Ghana Water Company Limited (GWCL) to pay as much as 20 times or more, to small water enterprises or vendors, above the cost of similar services from GWCL. Based on a survey conducted between 2000 and 2001, by the Public Utilities Regulatory Commission(PURC), the majority of the poor connected to GWCL water supply actually spends less than 5% of their income and use more water (35 litres per capita). Their counterparts who depend on alternative suppliers consumed 15 litres of water per capita and spend about 12% of household income on water (Water and Poverty Report, 2006).

Poor urban communities such as Nima and Teshie use different sources of water for different purposes. In most cases, tap water is used for drinking and cooking, whilst hand dug well and river water is used for washing. The main reason for this is the long distance to reach a tap that provides safe water, where as the alternative sources are nearby and are either free or cost only a small fee compared to the safer sources. Most people draw their drinking water from communal and household taps, but some use water for this purpose from wells and other unprotected sources.

Water supply to individual houses in the Metropolis is either by connection from the main and secondary lines or from water vendors. Generally, the availability and distribution of potable water varies from one community to the other, depending on the location and proximity of the community to the main water point , secondary lines or from water vendors. For example, most houses in Sabon Zongo fall within 200 metres of at least a commercial water point. However, individual yard or room connection is quite low.

The city of Accra has generally not enjoyed adequate and reliable water supply over a long period of time now. A large number of the population access their water services from private secondary sources. For example, a study on infrastructure audit in Sabon Zongo in Accra under the WAC II project revealed that 60.3% of residents in Sabon Zongo access their water services from private sources, while the remaining 40% access their water from domestic sources. Cost of water connection into individual households range between Gh ₵150(US\$ 15) and Gh ₵200(US\$ 20), depending on proximity to the connection point. Water from commercial vendors cost Gh 3 pesewas for 18 litres( size 34 bucket) with cost of showering being Gh 7 pesewa per shower.

WSS is clearly articulated in national strategies and expenditure frameworks but the link between targeted goals and resource allocations remains limited. Further, the WSS sector is heavily dependent on donor funding (over 90%) and there is little predictability of sector inflows. (*Getting Africa on track...*, pg27).

Poor urban communities such as Nima and Teshie use different sources of water for different purposes. Demand assessment studies should note and take account of this. In most cases, tap water is used for drinking and cooking, whilst hand dug well and river water is used for washing. The main reason for this is the long distance to reach a tap that provides safe water, where as the alternative sources are nearby and are either free or cost only a small fee compared to the safer sources. Most people draw their drinking water from communal and household taps, but some use water for this purpose from wells and other unprotected sources.

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city of Accra generally did not enjoy adequate and reliable water supply over a long period of time now. A large of the access their water services from private secondary sources. For example, a study on infrastructure audit in Sabon Zongo in Accra under the WAC II project revealed that 60.3% of residents in Sabon Zongo access their water services from privates, while the remaining 40% access their water from domestic sources.

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### **Sanitation Services in poverty pockets**

Sanitation and solid waste management practices are urgent health concerns for the residents of the Accra Metropolitan Assembly (AMA) . As the city grows, the strain on these services will intensify the problems. Waste not only contributes to the spread of diseases but exacerbates flooding by clogging drains. A comprehensive plan for managing and improving sanitation is essential for an improved quality of life and good metropolitan development. The repercussions of poor sanitation and waste management practices are poor health. The Waste Management Department (WMD) of the AMA is responsible for garbage collection and disposal and general sanitation within Accra.

In 1997, solid waste collection and haulage was privatized and contracted out to 15 different companies (Water and Poverty Report, 2006 p7-8). Solid waste collection in Accra is either a 'house to house' collection or a central container collection. 'House –to-house collection is prevalent in high-income communities. The perennial poor water supply situation results in relatively high cost service delivery. As a coping measure, residents along the beach in Teshie defecate on the beach while those in Nima use the gutters as places of convenience and refuse dump sites.

Poor access to water and sanitation service delivery has an adverse impact on the poor in the areas of health, education, income and livelihoods with the hardest hit area being income. Forty percent (40%) of the poor in Nima and 42% in Teshie spent over 50% of their income in accessing water and sanitation. The stress people go through to get water has implications on their health status. Poor watsan services also increases the hospital bills of the poor as they live in unhygienic areas, use polluted water and also have to carry heavy loads that make them ache in various parts of the body. The aged, physically challenged, street children and the unemployed are most hit by the high cost of water and sanitation service delivery. In the context of increasing urbanization, rapid growth of informal settlements and rising levels of urban growth , it is essential that utilities, national and local governments develop coherent policies for water supply and sanitation services that explicitly target the poor. For such policies to be implemented, they should be accompanied by adequate resources. In most countries such as Ghana, water is considered a basic right and addressing the needs of the poor is a stated objective of national policy. Despite this, policy statements on water supply and sanitation in a range of national policy documents (such as the GPRS, Water policy and Environmental Sanitation policy) are inconsistent and or contradictory.

## **Section 1: Introduction**

### **1.1 Overview**

WaterAid is rolling out an Urban Water Supply and Sanitation Services and Sector Assessment. The purpose of the assessment is to create a better understanding of the urban water and sanitation sector (UWSS) for improved programme and advocacy intervention. WaterAid country programmes participating in the process are conducting in-country studies to generate the required information across national, city and poverty pockets (slums and informal settlements) of the city. This, according to the research guide document should be done in three (3) phases thus;

- Phase one: Literature/desk review. This is to be executed as a desk review of relevant literature to gather baseline information and analysis of National, State and local UWSS. Country Programme will scope the sector for existing information and identify gaps in information.
- Phase two: Field study. To be conducted only in Countries where the need has been identified
- Phase three: Analysis of findings: Further analysis of findings and write up of country studies and synthesis report.

WaterAid Ghana is one of the CPs which signed up to carry out this research. This assessment report is the outcome of the desk review of available literature on the national, city and poverty pockets under the first phase of the study and the analysis of the findings of focus group discussions, key informant interviews conducted to fill the gaps in information and triangulated the findings from the literature review.

### **1.2 Background**

Rapid urbanization is resulting in significantly increased numbers of people living in unplanned and unserviced slum and informal areas of cities in developing countries. These settlements are often marginalised or pay high costs for poor water services, are denied adequate sanitation services and are provided with little or no knowledge of hygiene education. The high, chronic and pervasive incidence of water and sanitation related illness and disease has a significant impact on the health and quality of life of people living in these unplanned urban areas. Poor health in turn heavily impacts on household incomes, the ability to play an active role in economic activities, and attendance at school for children, in particular the girl child.

Increasingly, WaterAid's work is focussing on working with stakeholders in the urban water and sanitation sector in response to these challenges, particularly in Africa and South Asia. WaterAid's 2005-2010 Corporate Strategy commits the organization to prioritize urban investments.

WaterAid aims to contribute to a sustainable increase in equitable access to water and sanitation services for the poor in urban settlements in developing countries. WaterAid's urban work demonstrates how active participation of urban poor communities in decision-

making; increased prioritization of water and sanitation services; and targeted resource allocation leads to overall improved sector effectiveness.

WaterAid's first Urban Strategy was developed in 2001. Lessons from two reviews of our urban work in 2003(India) and 2005(Mali) and a process to develop an Urban Guideline and an Urban policy and Programme plan both, in 2006, identified the need for contextual analysis, baseline information and historical trends to guide WaterAid's urban work. In February 2007, an urban research and learning seminar agreed to conduct an Urban Services and Sector Assessment in pursuit of this need. This literature review report is the first stage of the processes.

### **1.3 Purpose**

The purpose of the assessment is to gain a better understanding of the urban water and sanitation sector (UWSS) for improved programme and advocacy intervention. This research and analysis will be shared with stakeholders and sector actors to encourage dialogue and inform planning across the sector. WaterAid would equip citizens and communities to engage with sector providers and policy makers. This would enable WaterAid and partners to contribute to creating demand and supply side accountability in sector governance.

### **1.4 Rationale**

The failure of approaches used in the past in the provision of water and sanitation to those living in poverty in rapidly urbanizing developing countries has left many people still lacking safe water and improved sanitation services. Although majority of people without safe water and improved sanitation services live in rural areas, the worse environmental health conditions exist in the vast, urban informal and poor settlements, due to high population densities in such locations.

This research and analysis will be shared with stakeholders and sector actors to encourage dialogue and inform planning across the sector. The outcomes and the associated outputs of this research will enable WaterAid to equip WaterAid partners, other sector players, citizens and communities to engage with sector providers and policy makers. This would enable WaterAid and partners to contribute to creating demand and supply side accountability in sector governance.

### **1.5 Objectives**

The research and analysis aims to:

- ❖ Share information and evidence on the state of UWSS with sector stakeholders, including communities. This would provide a basis for WaterAid and partners to engage and influence national and international sector role-players for policy and practice change.
- ❖ Obtain communities' perspective as a basis for re-thinking existing perceptions and assumptions. Such information would also help to influence effective targeting of sector investments to the poorest areas.

- ❖ Identify the strategic issues for WaterAid programme design and advocacy planning and implementation.
- ❖ Draw lessons from WaterAid and partners' field experiences and develop mechanisms for scaling up good practices and improving effective targeting of urban poor. The analysis will enable WaterAid to monitor and evaluate the short and medium-term impact of programme and policy work in the urban sector and ensure feedback into this work.

## **1.6 Methodology**

In order to fulfil the objectives of this study, a review of the existing literature and documents on UWSS within WaterAid Ghana was conducted. First, scoping of existing literature was done within WAG where a checklist and literature gaps were identified. Additional literature was gathered from other sources to supplement the literature gathered from within WAG. An in-depth review of these literatures from a wide range of publications and interviews were conducted to supplement the gaps in information, triangulated the findings from the literature review and identify the key issues that were relevant for the study. Institutional policies, approaches, strategies and cost recovery mechanisms employed by the agencies, and the links between communities and these agencies in poor urban communities were analyzed. A major challenge was the limited published materials from the sanitation sector.

## **Section 2: Urban Poverty Pockets/Poor Settlements**

### **2.1 Context**

The growing incidence of slum development in Ghana has been the result of rural-urban migration, limited supply of land, and regulatory frameworks that are, at best, indifferent and hostile to the needs of the poor. In 2001, the number of people living in slums in Ghanaian cities was estimated to be 4,993,000 and growing at a rate of 1.8% per annum. It is estimated that about 800,000 urban poor live in Accra. Slum areas are also very pronounced in Kumasi, Sekondi-Takoradi, Tema and Tamale with growing incidence in the secondary cities of Cape Coast, Koforidua, Sunyani, Ho and Bolgatanga. The urban areas in Ghana include some 174 settlements with populations above 5000 people.

***(Page 53 GPRS II)***

In Accra, the poor are located in three key areas: along the beach (mostly indigenous people); at the central business district in makeshift structures, kiosks, and discarded metal containers mixed in with commercial activities; and in the newly developing peripheral areas. ***(pages 34 and 35 SWEs..)***

The poor can be categorized as: The indigenous poor; the newly arrived opportunity seekers; and those without reliable livelihoods. Some of the slum areas of Greater Metropolitan Area include Adenta, Teshie, Nungua, Nima Mamobi, Ashaiman, and Sabo Zongo. Teshie and Nima have been selected as the study sites for the poverty pocket level of this assessment.

The Accra Metropolitan Assembly (AMA) is the local political structure responsible for the administration of the Accra Metropolis. Under the Local Government Act 462(1993), AMA has the overall responsibility for planning and general development of the Accra Metropolitan Area.

#### **2.1.1 Housing**

The United Nations (UN) defines a house as a “structurally separate and independent place of abode such that a person or group of persons can isolate themselves from hazards of climate such as storms and the sun”. By this definition therefore, any type of shelter used as a living quarters, such as makeshift kiosks, containers and formal buildings were considered as houses. Housing types in Accra Metropolis is predominantly compound housing with mostly tenant households and very few family houses.

Housing mainly occupied by the poor is mostly of the compound form. Typically, a completed compound would be built as a single storey structure with a series of single-banked rooms surrounding a square unroofed courtyard. The compound normally grows through phases, or accretion, each of its four wings constituting a phase in development, a development that is mirrored in family growth and or economic growth.

Unlike the villa or other structurally coherent dwellings (that is without a courtyard), which are constructed 'elementally' from the ground up, the compound is built incrementally, room by room, and as such is habitable almost immediately. This type of growth allows for very flexible household formation and for other types of domestic arrangements. Currently however, the government affordable housing policy (with a different structure) is emerging and is projected to house at least 25% of the population by 2010.

## 2.1.2 Demographics

The size and composition of households and the sex of the head of households are important social conditions that impact on household welfare. In Ghana, a third (34%) of households are headed by females. The percentage of female-headed households is higher in urban (40%) than in rural areas (29%). Single person households are more common in urban (25%) than rural (18%). This may be due to an influx of unmarried young persons migrating to urban areas in search of employment or to further their education. (*Page 13, GDHS Report, 2003*)

There are more women (53%) than men (47%) in the total population. Also, there is a higher concentration of women in urban than rural areas (55% and 51%). The age structure is typical of a young population (44% are under 15 years with 5% representing those 65 years and above) characterized by high fertility which imposes a heavy burden on the social and economic assets of the country. (*Page 11 GDHS 2003.*)

The table below illustrates the distribution of household population.

**Table 2.1 Household population by age, sex, and residence**

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
< 5	13.3	10.7	11.9	17.5	16.2	16.8	15.8	13.9	14.8
5-9	14.0	11.8	12.8	17.5	15.0	16.2	16.1	13.6	14.8
10-14	16.1	12.8	14.3	16.9	13.3	15.0	16.6	13.1	14.7
15-19	11.5	11.5	11.5	9.0	7.5	8.2	10.0	9.3	9.6
20-24	7.8	10.1	9.1	5.0	6.8	5.9	6.2	8.2	7.2
25-29	8.0	8.3	8.2	5.6	7.1	6.4	6.6	7.6	7.1
30-34	6.4	6.7	6.5	5.0	6.1	5.6	5.5	6.4	6.0
35-39	4.9	5.9	5.4	4.3	5.8	5.1	4.5	5.9	5.2
40-44	3.6	4.6	4.2	3.7	4.4	4.0	3.7	4.5	4.1
45-49	3.7	3.8	3.7	4.0	3.5	3.7	3.9	3.6	3.7
50-54	2.7	3.7	3.3	2.5	3.9	3.2	2.6	3.8	3.3
55-59	1.7	2.4	2.1	1.7	2.6	2.1	1.7	2.5	2.1
60-64	2.3	2.3	2.3	2.1	2.3	2.2	2.2	2.3	2.3
65-69	1.5	1.5	1.5	1.9	1.6	1.7	1.7	1.6	1.6
70-74	1.1	1.7	1.4	1.3	1.5	1.4	1.2	1.6	1.4
75-79	0.7	0.7	0.7	0.9	1.0	0.9	0.8	0.8	0.8
80+	0.6	1.3	1.0	0.9	1.3	1.1	0.8	1.3	1.0
Missing	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total</b>	<b>100</b>								

<b>Number</b>	<b>4,575</b>	<b>5,539</b>	<b>10,115</b>	<b>6,625</b>	<b>7,326</b>	<b>14,250</b>	<b>11,500</b>	<b>12,865</b>	<b>24,365</b>
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**Source: GDHS Report, 2003, pp12.**

Majority of household (62%) dispose of their household waste in the streets or an empty plot, with a much higher proportion of rural households than urban household disposing of household waste in this manner. Fourteen percent of households have their waste collected by the government and this predominantly done in the urban areas. Seven percent of households burn their waste, 4 percent have their waste collected by a community association, 4 percent dump it in their compound, while 3 percent bury or compost their waste. *(Page 21 GDHS 2003).*

### **2.1.3 Socio-economics**

Earlier studies have reported a norm in the Accra Metropolitan Area which indicates that a secondary or subordinate status is accorded to women. Gender groups, both male and female acknowledge the man as the head of the household. This unequal power between men and women is manifest in spheres such as access to and control of decisions on reproduction, and the economic pursuits of wives and the allocation of tasks at the household level. In particular, men do not necessarily see this type of arrangement as reflecting the deprivation of women *(Page 4 – women and household environmental care in the Greater Accra Metropolitan Area (GAMA) Ghana).*

Women and children, who are responsible for water collection and its use for laundry, cooking and domestic hygiene, suffer most if supplies are contaminated and difficult to obtain. There is a close relationship between wealth and access to potable water and sanitary services. Most rich households have in-house piping, which is typically connected to overhead storage containers. The poorest households rely mostly on water vendors, communal standpipes and other less efficient water supply sources, which not only give rise to water hunts during periods of water shortages and supply interruptions, but also necessitate the in-house storage of water in drums and other containers that can easily become contaminated. *( Page 18 – women and household environmental care in the Greater Accra Metropolitan Area (GAMA)).*

### **2.1.4 Health Status**

Increasingly, access to water has become a key factor in choosing where to live and what rent to pay. A property will cost less if there is no reliable water supply. It is therefore relatively cheaper for the poor to live in relatively cheaper rent areas with inadequate social infrastructure and lower environmental standards. There is a huge cost, however, for the poor because of this lack of access to water.

Poor access to water and sanitation service delivery has an adverse impact on the health, education, income and livelihoods of the poor with the hardest hit area being income. 40% of the poor in Nima and 42% in Teshie spent over 50% of their income in accessing water and sanitation. The stress people go through to get water has

implications on their health status. Poor water and sanitation services also increases the hospital bills of the poor as they live in unhygienic areas, use polluted water and also have to carry heavy loads that make them develop body ache. The aged, physically challenged, street children and the unemployed are most hit by the high cost of water and sanitation service delivery.

Malaria constitutes the major cause of morbidity in most of the poor urban settlements such as Nima, Mamobi, Ashaiman among others. In 2006, of the top ten morbidity cases at the La General hospital (which serves the people of Teshie), malaria constitutes 38% while the Mamobi Polyclinic, which serves the people of Nima, in the same year, reported malarial cases as constituting 52.8%. The figures were the highest among the reported cases at the respective health institutions. The phenomenon can be associated with the poor sanitation in these slum areas of the Accra Metropolis (Water and Poverty Report, 2006).

## **2.2 Levels of Service**

### ***Water Supply***

The 2005 UN Human Development Report classified Ghana as a medium ranked country in terms of population with access to improved sanitation and safe water resource. As at 2002, overall sanitation coverage was 58% with 79% for safe water. (HDR 2005).

Poor urban communities use different sources of water for different purposes. In most cases, tap water is used for drinking and cooking, whilst well and river water is used for washing. The main reason for this is the long distance to reach a tap that provides safe water, whereas the alternative sources are nearby and are either free or cost only a small fee compared to safer sources.

In the Accra Metropolis, over 60 % have access to potable water. However, whilst these overall statistics do indicate some differences within particular settlements, they also hide other differences between residential areas. In Greater Metropolis for instance, areas such as Adenta, Teshie, Nungua, Nima and other places use water from unprotected sources while others use water that is red in colour, due to contamination, from an unreliable borehole, and some use both, for different purposes.

Household and communal taps do not provided water for several months, resulting in long, tiring and time consuming journeys for the women and children, whose responsibility is usually to collect drinking water. Women and girls may be at risk of attack during such journeys, particularly at night. Some households in Nima and Teshie areas walk nearly two kilometers to fetch water (Building Links for improved sanitation in poor urban settlements pp21).

According to J. Songsore et al (1996), women and children, who are responsible for water collection and its use for laundry, cooking and domestic hygiene, suffer most if supplies are contaminated and difficult to obtain.

Table 2.2. 1 below shows a close relationship between wealth and access to potable water and sanitary services.

**Table 2.2.1 Access to water and sanitary services by wealth quintile of household(%)**

<b>Wealth Quintile</b>					
	<b>1- Poorest</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5- Wealthiest</b>
<b>A. water source</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>
In-house piping	6	17	26	49	78
Private standpipe	16	28	35	30	12
Communal Standpipe	21	8	6	4	3
Vendor	49	41	29	15	7
Other	7	6	4	3	1
Total	100	100	100	100	100
(Sub-sample size)	<b>205</b>	<b>(187)</b>	<b>(210)</b>	<b>(200)</b>	<b>(198)</b>
<b>B. Toilet facility</b>	<b>1- Poorest</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5- Wealthiest</b>
	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>
Flush Toilet	7	17	30	47	77
Pit/KVIP Latrine	72	54	45	24	12
Pan Latrine	15	25	22	28	8
Other/None	6	4	2	2	3
Total	100	100	100	100	100
(Sub-sample size)	(205)	(187)	(210)	(200)	(198)
<b>C. Toilet Sharing</b>	<b>1- Poorest</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5- Wealthiest</b>
	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>
Not shared	6	14	18	31	65
Share with ≤10 hh	20	21	28	39	19
Share with > 10hh	69	62	51	28	12
No response	5	3	2	3	5
Total	100	100	100	100	100
(Sub-sample size)	(205)	(187)	(210)	(200)	(198)
<b>D. Outdoor defecation</b>	<b>1- Poorest</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5- Wealthiest</b>
	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>	<b>Col. %</b>
No	53	74	72	77	88
Yes	47	26	28	23	12
Total	100	100	100	100	100
(Sub-sample size)	(205)	(187)	(210)	(200)	(198)

Source: J. songsore et al (1996) In Urban Environmental series, Report no 2

Table 2.2.1 shows a close relationship between wealth and access to potable water and sanitary services in the Accra Metropolis. In the case of water (3A), most rich

households (78%) have in-house piping, which is typically connected to overhead storage containers. The poorest households rely mostly on water vendors(49%), communal standpipes(21%) and other less efficient water supply sources, which not only give rise to water hunts during periods of water shortages and supply interruptions, but also necessitate the in-house storage of water in drums and other containers that can easily become contaminated.

## **Sanitation**

One can infer from table 2.2.1 B, C and D that women in wealthy households who have access to exclusive household flush toilets do not have to face the hazards of collecting child faeces found in the neighborhood environment. Characterized by faecal contamination and filth from garbage accumulations and sullage, poor neighborhood present unhygienic living areas. This is exacerbated by the fact that the poor rely most heavily on crowded communal or shared pit latrines. As a result of the crowding of these sanitary facilities, open defecation is often practiced in the neighborhood(47%).

The women who act as the principal household environmental managers in poor communities face numerous health hazards as a result of the inadequate water supply and sanitary services. Their management tasks are compounded by the need to work with technologies and services which are shared with other households, and often under the control of men. For example, while the women are responsible for child care and the toilets habits of their children, it is typically men who dominate the running of the communal pit latrines.

Also, sanitation services does not satisfy the needs of the urban poor. A significant number of people are dissatisfied with their sanitation facilities, ranging from unimproved pit-latrines to communal facilities provided by local authorities. The major problems attributed to pit latrines include bad smells and poor cleanliness; presence of rodents and insects; poor latrine construction materials, shallowness of pits; and lack of affordable pit emptying facilities among others.

Over 85% of respondents of Agbogloshie, Nima and Mamobi in Accra are worried about lack of support services, such as those for pit-emptying, which forces (Agbogloshie in particular) them to construct new unimproved pit-latrines, whenever they fill up. This is not only expensive but it also takes up space, which is scarce in an urban environment, particularly worse in the case of the urban slum like Agbogloshie. In cases where emptying facilities exist, the urban poor can not afford them, as they are expensive. The project Manager of Zoomlion Ghana(the largest private waste management firm put the cost of having a ventilated improved pit-latrine (VIP) emptied at a staggering US \$ 120-140 depending on which private company is providing the service. However, the subsidized cost of the Accra Metropolitan Assembly costs only US \$ 50 which can take a community almost a month to access its services because the vehicles are woefully inadequate to service the large numbers of communities in the queues all the time. Also, such service could apparently only be extended to the poor and illegal informal settlements in the city in times of crises.

Refuse in the Accra Metropolis is presently collected by eighteen (18) contractors, who are contracted by the AMA to manage waste in the city. The exclusive reliance on waste management companies to cart tonnes of overflowing refuse in the various communities to the four(4) disposal sites has proved incapable of solving the problem due to logistics and financial problems.

### **Solid waste Management**

Majority of households (62%) dispose off their household waste in the streets of an empty plot, with a much higher proportion of rural households than urban household disposing off household waste in this manner. Fourteen percent of households have their waste collected by the government and this is predominantly done in the urban areas. Seven percent of households burn their waste, 4 percent have their waste collected by a community association, 4 percent dump it in their compound, while 3 percent bury or compost their waste. *(Page 21 GDHS 2003).*

Records at the Accra Metropolitan Assembly indicate that out of the 2,000 tonnes of waste presently generated daily in Accra, only 1,500 tonnes is collected and properly disposed off. The uncollected solid waste is often dumped chaotically in the streets and drains, and this poses serious health hazard to both humans and animals. Throughout the city, almost all central waste containers can be seen overflowing with garbage generated daily by a population of about three million.

A public health study in the Accra Metropolitan Assembly area in the early 1990`s (Stephens et al., 1994) found that diseases of the circulatory system were the major cause of death. These accounted for 24% of all deaths. Infectious and parasitic diseases accounted for around one fifth of all registered deaths. The data revealed a high degree of correlation between increase risk of mortality and residence in the most socio-economically and environmentally deprived areas.

Refuse in the metropolis is presently collected by about a number of contractors, who are contracted by the AMA to manage waste in the city. The exclusive reliance on waste management companies to cart tonnes of overflowing refuse in the various communities to the refuse dump site at Oblogo has prove incapable of solving the problem due to logistics and financial problems.

The Agbogloshie settlement, derogatively called 'Sodom and Gomorrah', which is the focus of this project, is the biggest slum and informal settlement in Ghana. The settlement exhibits possibly, the most precarious living conditions in the whole of Accra. Agboglosie is a growing squatter settlement, exhibiting poor housing conditions and consist mainly of makeshift or wooden shacks. The activities of the growing population in Agbogloshie urban agglomeration, with increasing commercial activities in and around the settlement have exerted enormous pressure on its fragile environment. The lack of proper drainage and improper liquid and solid waste management has led to a breakdown of sanitation in the settlement. This has created conditions conducive to the proliferation of many disease vectors.

This risk of infections with vector borne diseases has increased due to exponential population growth, large-scale population movement and urbanization coupled with the ever increasing commercial activities.

## **2.3 GOVERNANCE**

The structures and modus operandi of sanitation agencies, especially those within government structures, are very different from the ways in which poor urban communities are organized in Ghana. Whereas local authorities have formal and clear structures and reporting systems, based on government acts or by-laws, community structures are weak, informal and based on a wide range of factors that include religion, culture, tradition and politics. In most cases, local government agencies work according to rigid procedures and upward reporting systems, which do not include explicit responsibility and accountability to their customers/clients or communities. This makes it difficult for them to communicate with poor urban communities. Reporting systems and chains of command within local authorities are vertical and allow only limited community participation.

Insufficient accountability to the local people is obviously a weakness of the local government system as it currently operates in Ghana. The problem is that departments put in place to oversee community participation lack the necessary capacity to coordinate community projects efficiently with other departments.

### **2.3.1 Voice**

According to the report on Social Infrastructure Audit in Sabon Zongo, Accra, Nov 2007, Water for African Cities(WAC II), most community respondents maintained that community participation in issues and decisions on water was non-existent. Almost all the groups and segments of community represented expressed a strong feeling that there are no systems in place for participation or for the acquisition of knowledge about PURC and its role in tariff fixing let alone participate in public hearings called by PURC for that purpose. The community expressed a keen interest in contributing or participating in the decision making process of the PURC and would appreciate the creation of a Community Participation platform in that regard. The views expressed by the community members of Sabon Zongo are not different from other communities in the city.

### **2.3.2 Participation**

Gender should be one of the key determinants of sanitation choice. There are many reasons why women need to be included in the decision-making process: not just because they are regarded as those most responsible for hygiene in the household, but because their sanitation needs are greater and different from men's. For many men, urinating in public is neither shameful nor unacceptable.

Men also have more ready access to public places to use toilets (pubs, mosques, etc). In contrast, public toilets are associated with violence against women, lack of privacy and often appalling hygiene situations. Women often prefer to walk several kilometers,

before sunrise or after sunset, to defecate in open places rather than to visit public toilets closer to home. During menstruation women need to visit sanitation facilities more frequently and are therefore more in need of a nearby and clean toilet than men. Squat facilities and appurtenances should also be provided in toilets to promote ease of use regarding the young, the elderly and the disabled.

Religion, through its relation with ethno-cultural and gender aspects should be the motivation for a request for a particular form of sanitation. For example, the distinction between anal cleansing with paper (or other materials) and water, the 'wipers and washers' can be explained by religious morals and norms.

Cultural values should be considered in selection of the preferred sanitation option. For instance in predominant Muslim communities patronage at public toilets are high in cases where male entries and exits are separate ( A Report on Social Infrastructure Audit in Sabon Zongo, Accra, Nov 2007, WAC II).

### **Box 1 : Guidelines for Improvement of Quality of Urban Water Supply Services.**

Services standards in water delivery worldwide are measured by the following "water use and satisfaction of level of services" criteria:

- ✓ **Accessibility & Reliability – measured** in terms of amount water available to a person at any time called the specific or per capita consumption, no. of persons per direct connection, no. of hours in day or no. of days in the week of uninterrupted flow)
- ✓ **Technical Performance of Piped System – measured** in terms of. water quality, adequacy of flow velocities and pressures, availability of fire fighting requirements, level of physical losses, frequency of pipe bursts etc),
- ✓ **Affordability** (i.e. water tariff levels and assessment of affordability by willingness and ability to pay, willingness and ability to pay by income levels and frequency of payments/default in payment and promptness of payments, if you like number of times a particular house/household has been disconnected for non payment)
- ✓ **Level of community involvement** (crucial for project sustainability)
- ✓ **Duty of Care** by Institutions in respect of consumers as individuals and as members of their local communities.

### **2.4 Water Poverty impacts and Human Development Linkages**

Poverty is a multi-dimensional and dynamic construct. The dimensions of poverty can be categorized into three main facets: income or consumption, access to social

services, and participatory dimensions of poverty. The income dimension of poverty implies low levels of income or low levels of consumption that are socially unacceptable. The access to social dimension level of poverty includes lack of access to health care, education, potable water, decent housing and safe sanitation facilities. The participatory dimension includes lack of voice and political rights. People who lack the ability to participate in decisions that affect their lives directly consider this as sense of helplessness and a fundamental characteristic of poverty( Water and Poverty Report, 2006).

Besides the multi-dimensionality of poverty, it also has a dynamic attribute in the sense that it changes over time, across space and across individuals. The official estimates in Ghana indicate that urban poverty has fallen from 27.7% to 19.4% between 1991 and 1999. The official rates of poverty are based on a greatly improved but still conventional based methods of poverty estimation. According to Taylor et al 2002 as cited in Water and Poverty report, experts agree that this greatly underestimates the magnitude of urban poverty because the phenomenon is multidimensional and not only dependent on incomes.

The consumption based poverty findings for Accra and other urban areas raises concerns given that urban dwellers require between 70% and 80% of their income as expenditure for food and thereby leaving them with very little resources to cater for other necessities of life including water and sanitation facilities. This phenomenon indicate that the application of non-economic indicators as well as the multi-dimensional, cumulative and dynamic characteristics of urban poverty, reveals a higher incidence of poverty in all urban centres including Accra. This analysis emphasizes the reality of urban poverty and the need for the adoption of appropriate strategies to counter then phenomenon ( Water and Poverty Report, 2006).

## **2.5 Prioritised Community Needs**

For sanitation agencies to be able to provide appropriate, efficient and sustainable services they should understand the needs and priorities of the urban poor and design programmes accordingly. The urban poor face a wide range of problems, which they prioritise differently, given the different socio-economic environments in which they live. However, the focus group discussions and interviews revealed that sanitation is not a very high priority amongst most of the urban poor interviewed. The issues of water, high cost of living, poor roads, and electricity are the high priorities among urban communities interviewed. The relatively low importance attached to sanitation in the poor urban communities further complicates the quest for feasible ways to increase coverage. The complex problems faced by the urban poor, and their priorities, call for a holistic approach that tackles sanitation in the context of poverty alleviation. This suggest the need for a coordinated approach, involving government, Non-governmental Organizations and Civil Society Organizations as well as external support agencies.

## **2.6 Conclusions**

Although GWCL pipe connections are the principal sources of potable water supply in the study areas (Teshie and Nima), the main supplier of water (49%) are vendors rather than piped network (private 22%, communal 21%). Poorer neighbourhoods are therefore left to pay premium prices for the labour, operating cost and the profit margins of the vendors. This can sometimes be as much as 10 to 30 times the GWCL official price or 50% of the average income of a poor family. Other sources include individual household open hand-dug wells and sachet water. Residents of Teshie also use stream water. Access to WATSAN facilities is highly inconvenient as taps do not flow regularly and this compels residents to travel long distances and spend several hours in search of water. Irregular supply of water equally affects the operations of private sector operators. This accounts for the high cost of accessing water especially during the dry season when the situation becomes acute. Residents have resorted to using different sources of water for different purposes – tap water for drinking and cooking and hand-dug wells and river for other domestic chores such as washing and cleaning. Sanitation and hygiene situations in most parts of the Metropolis are deplorable. In Teshie, the situation is acute in the fishing community along the shore where the population is very dense and sanitation facilities inadequate. Open defecation is practised by about half of the population.

The poor who live in areas such as Nima, Mamobi, Teshie, Agbogloshie and other communities have their own understanding of key terms such as “sustainability and affordability, which (terms) are important in policy making and service delivery that are aimed at achieving a lasting solution to the existing problems in the poor communities .

## **SECTION 3: Profiling the City**

### **3.1 Background and context**

#### **3.1.1 History**

Accra – the seat of government and Ghana’s major commercial center is managed by the Accra Metropolitan Assembly in accordance with the Local Government Act, 1993, (Act 462). Its population as at 2000 stood at 2, 905, 726 (87.7 per cent urban) and the population of Accra metropolis at 1,658,937 (100 percent urban population) with an estimated 4.5 per cent growth per annum. Approximately 14 percent of the total population of Ghana (approx. 21million) lives in the Greater Accra Region.

About 26% of the population in Accra is classified ‘poor’ because they receive less than 66% of the national per capita income. 3.7% of the population are classified as ‘hard-core poor’ as they earn less than 25% of the national per capita income. In 2000, the World Bank estimated that the gross national income per capita for Ghana was US \$ 1,900 (Globalis, undated)

Historically, Accra Metropolitan Area is the land of the GA tribe. Over time, however, the city has gained a cosmopolitan status. Recent trends in settlement patterns include the increasing intrusion of middle and upper- income households into peri-urban areas as the city has expanded, which has resulted in mixed communities of rich and poor. This has had the effect of increasing pressure on utilities to provide services to these areas, which requires different supply options. (*Pages 26 and 27- SWEs 4: Ghana*). This section also includes population data disaggregated according to women, characteristics, income etc.

#### **3.1.2 Poverty, health and socio-economic conditions**

Accra, like all other large African cities, is experiencing rapid growth. Its population increased from 1.2 million to 2.2 million between 1984 and 1999, an average growth of 3.2% a year and well over the national rate of growth of 2.6%. It is estimated that about 800,000 (36%) of these are urban poor residents, living in poverty pockets dotted around the city.

Poverty has many dimensions and assessment depends on a range of indicators. The standard measurement of poverty in Ghana is by both incidence and levels of income. On this basis, it was asserted in 1999 that any adult who received less than 900,000 cedis per annum was ‘poor’, and less than 700,000 per annum was ‘hardcore poor’. Unconfirmed corresponding figures for 2004 indicate that any person who received less than about two-thirds of GDP per capita is considered poor. Ghana’s GDP was about US \$ 420 (3.7 million cedis).

According to the Ghana Poverty Reduction Strategy Report, 54 per cent of rural communities in Ghana are poor, while the general urban figure is 27 per cent. In the same report, 26 per cent of the residents of Accra metropolis were poor (GoG 2003). Given the population of Accra, it means 431,323 people are poor. Compared to the total of 6,900,000 nationwide, this means that Accra metropolis has 3.7 per cent of the total poor. Accra metropolis thus presents the highest concentration of the poor with 431,323 statistically identified as being the poor (GSS 2000a). The concentration of the poor in particular communities within Accra and the total absence of social safety nets make their case even more precarious. *(Page 33 (SWEs..))*

It has been established that the urban poor are more vulnerable than the rural poor because in the rural areas there are established networks or coping strategies and safety nets available, while this is not the case in urban communities. Although the competitive nature of the urban setup within a complex system creates opportunities, poor people cannot easily access these. *(Pages 33 and 34. SWEs..)*

Access to adequate housing, safe water and sanitation facilities, is an important ingredient in efforts to improve the health outcomes and livelihood of Ghanaians. While 80% of 'well-off' neighbourhoods have connections to the public supply, this figure falls to 16% in low income neighbourhoods. As the public water supply does not reach all areas, a large part of the city is supplied by water tankers and other small water enterprises or water vendors. Increasingly, access to water has become a key factor in choosing where to live and what rent to pay. A property will cost less if there is no reliable water supply. Urban poor households therefore concentrate in relatively cheaper rent areas with inadequate social infrastructure and lower environmental standards.

According to Government of Ghana, inadequate water supply and sanitation services contribute to over 70% of diseases in Ghana, costing the country significant sums in health care and productivity. Ghana's development priorities are in consonance with the MDG targets. It is noted that increased government spending under the GPRS 2003-2005 appears to be putting a downward pressure on poverty growth especially for the poor and the extreme poor. Substantial progress was made in improving access to safe water from 46.4% in 2003 to 51.7% in 2004 while the number of small towns (urban) water systems is increased from 65% in 2003 to 97% in 2004.

### **3.2 Land Tenure, Housing Stock and Slum Development**

Current estimate of housing needs by the Ministry of Works and Housing indicate that the country needs at least seventy thousand (70,000) housing units annually. Presently, the national supply is about 35% of this figure. Lack of sufficient housing units in the urban areas has contributed to overcrowding, development of illegal structures, children and young people living in the streets and undue pressure on the already limited water and sanitation facilities.

GPRS II treats housing as a strategic area for stimulating economic growth while at the same time improving the living conditions of Ghanaians. It is estimated that for every ten thousand dollars (\$10,000) spent on housing construction more than seven jobs are created in related industries and enterprises. Government is in the process of reviewing the National Shelter Policy, with the ultimate goal of providing adequate and affordable housing with requisite infrastructure and basic services to satisfy the needs of the people *(Page 52 GPRS II)*.

A national strategy for Affordable housing was conceived as a project to use business strategy techniques, tools and methodologies to address the challenge of affordable housing and improve the housing situation in Ghana. *(Page 6: Analysis of Affordable Housing in Ghana)*

Individuals building their own homes has outpaced the availability of government and home developers housing stock. The lack of land security presents lending institutions with significant problems when trying to underwrite the risk of providing credit instruments such as mortgages. The inability to manage risk effectively by the lending institutions translates into large parts of the population being unable to qualify for conventional home loans. The social impact of this situation is that poor people develop alternative means to shelter acquisition as a means of social and economic security, not as investment. *(Page 7: Analysis of Affordable Housing in Ghana)*

The challenge in Ghana is the friction between traditional and modern demands and process. Traditional institutions are still a significant force in the determination of much of Ghana's land management. Land is a fundamental factor in housing development, playing an essential role in increasing as well as sustaining investment in this sector.

In the Ghanaian context, land tenure is based on the principle that there is no land without an owner. The primary source of land for housing in both rural and urban areas is the customary sector where land is held communally (stool, skin, clan, or family). The constitution provides for Government to intervene with statutes or policies to facilitate change and overcome obstacles. As such public rights can be exercised whenever land is to be used for ultimate benefit of the public. Important statutory interventions in land tenure include the administration of lands Act 1962 (Act 123) and the state lands act (act 122). Among other reasons why government intervenes in land administration is to facilitate land acquisition through formal, documented channels in the aid of national development. *(Page 9-12: Analysis of Affordable Housing in Ghana)*

The Ghana National Shelter Strategy (NSS) 1993, represents current direction of urban housing policy. It was devised with United Nation's assistance. Its six main objectives are:

- Improving the quality of shelter;
- Improving the environment of human settlements;
- Making shelter programmes more accessible to the poor;
- Promoting private sector involvement through an enabling policy Environment.
- Encouraging rental housing;; and

- Promoting orderly growth and infrastructure in place.  
(Page 37: Analysis of Affordable Housing in Ghana)

In addition to exacerbating the ongoing trends of widening the poverty gaps between north –south, and rural –urban, favouring the later in both respects, urbanization and the recent economic upturn that Ghana is witnessing are also making more apparent the socio-economic difference within urban areas where approximately 28% of the urban population were characterized as poor. This is particularly the case in Ghana’s major urban centres. (Page 40: Analysis of Affordable Housing in Ghana)

### **3.3. Urban Water Supply Situation**

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#### **3.3.1 Water Supply Systems**

Water supply in the Accra Metropolis is currently the responsibility of the Ghana Water Company Limited (GWCL), a financially independent company owned by the state. In 1998, GWCL supplied 123,000 customers in Accra and surroundings, of which 111,820 were domestic customers. This amounts to about 5 connections for each 100 residents. Due to its limited financial resources, GWCL introduced a cost-sharing arrangement which allows residents to obtain a network extension faster than they would otherwise have done had they waited for the utility to include this in a network of expansion programme.

Despite these achievements, many urban communities such as Nima, Mamobi, Teshie, Nungua among other face shortfalls in water supply. The situation is even more critical in the major cities, where the urban poor have to pay more than ten times the tariff for water as approved by the PURC through secondary and tertiary providers. Some of the factors that account for this phenomenon include previously low tariffs which affected GWCL’s ability to renew its facilities and carry out expansion in water supply, increased urbanization which is putting tremendous pressure on utilities and management challenges among others.

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### 3.3.2 Urban Water Availability/Reliability

Currently, 80 systems managed by the GWCL serve a total urban population of 8.4 million. As of 2004, urban water coverage is estimated at 61%. The national urban water supply programme set as its target a national coverage goal of 85% by 2015 in line with the Millennium Development Goals (Ref. GPRS, PMU).

With GWCL's unaccounted-for water (UFW) at about 50% of total output, the volume of water that is effectively sold is 280,000m<sup>3</sup>/day. This figure is about a third of the daily demand of 763,300m<sup>3</sup>. It is conceivable that a fair percentage of UFW (the portion considered to be administrative leakage), is also used by urban residents. But, as demonstrated by widespread rationing, there remain an acute shortage (Ghana Water Sector Assessment, 2005) [www.wateraid.org](http://www.wateraid.org).

Several factors have been responsible for this present state of affairs some of which include:

- ✓ Increased urbanization, which is putting tremendous pressure on existing utilities;
- ✓ Previously low tariffs which affected GWCL's ability to renew its facilities and carry out expansions in water supply;
- ✓ Management challenges including low revenue collection; and
- ✓ Ineffective mechanisms to expand the water network and ensure accessibility to potable water supply to low-income and peri-urban consumers.

Urban water supply in Ghana is dependent on whether there is reticulation, available and reliable supply, and how affordable it is to connect to the piped system. According to a survey by the Public Utilities Regulatory Commission (PURC), connection fees are indeed a barrier to access for low income households with 28 per cent of those surveyed citing this as a barrier to access. This is further supported by a study by Mime which revealed that from 1999 through to 2002, it cost more than 15 percent of average house hold income (41% in 2002) to connect to the Utility's mains. **(Pages 35 and 36 SWEs..)**

Access to water has become a key factor in choosing where to live and what rent to pay, not the least in Accra. The same property will cost less if there is no reliable water supply. It is therefore relatively cheaper for the poor to live in these relatively cheaper rent areas. Poor people, though vulnerable in many situations, have adopted their own means of

copied with situations of water deprivation. When water becomes difficult to access for poor households along the coast (including Teshie), the sea becomes a crucial asset. Sea water is used for bathing thoroughly and just a few cups of fresh water are used to rinse. (Page 43 SWEs)

### **3.3.3 Water Accessibility/Reliability**

In Ghana, the average availability/access to safe drinking water in urban areas is 20hrs/day (Ref: Water Supply & Sanitation Sector Assessment, 2000). In Accra, for example, it has been estimated that only approximately 25% of residents enjoy a 24-hour water supply. About 30% have an average of 12 hours service every day for five days a week. Another 35% have service for two days each week while the remaining residents on the outskirts of Accra are completely without access to piped water supplies. This pattern is more acute in other urban centres. The un-served areas depend on secondary supplies (i.e. vendors and mostly tanker service delivery or dedicated GWCL filling points).

This situation is below the standards recommended by the PURC on accessibility of water in Ghana.

#### **Box 2: PURC recommended standards on accessibility of water in Ghana**

- ✓ The MDGs of the GPRS requires a (24hrs/day) uninterrupted supply of potable water to any section of the urban population by 2015. This falls perfectly in place with service standards of the (IWA).
- ✓ Access routes to water supply or level of service in sectors of beneficiary communities should be distinctively classified, that is whether water is provided to the consumer by direct house connection, yard connection, vendor service, tanker service etc. and the average quantity of water required in each level of service.
- ✓ The UN and WHO recommend that per capita consumption of water which is the basic water requirement should be provided irrespective of the price
- ✓ Accessibility and reliability of water supply services should be improved through the provision of direct house connection.
- ✓ Specific investment quotas within the total investment plan set aside for expansion of water supply coverage in pro-poor settlements should be clearly delineated to be able to achieve the specific objectives of the MDGs of the GPRS.

### **3.3.4 Urban Per Capita Consumption**

Urban per capita consumption patterns worldwide follow income levels. Dwellers in low income areas consume less water than their counterparts in the high income areas. Studies carried out by (Nyarko et al, 2004) in Kumasi and the PURC in Accra put the specific consumption figures at:

- ✓ 56 l/c/day in low income areas and
- ✓ 120 (l/c/d) in high income areas.

The UN suggests guaranteeing proper water supply is vital to eradicating poverty. It says the absolute daily minimum amount of water a person needs is 50 litres (13.2 gallons) which include: 5 litres for drinking, 20 for sanitation and hygiene, 15 for bathing and 10 for preparing food. The situation in urban low-income areas in Ghana just barely meets this amount.

(<http://www.globalpolicy.org/soecon/develop/africa/2002/0410water.htm>)

### **3.3.5 Peaking Factors for Urban Water Demand Projections .**

The peaking factors are measured variations in water demand. They are applied to average demand figures to cater for periods of high or low consumptions during certain months, days and hours of the year. The criteria for peak hourly factors set out by the CWSA for Small Towns Water Supply are:

- ✓ Distribution Mains = 2.5 litres
- ✓ Transmission Main = 1.2 litres

### **3.3.6 Urban Water Supply Strategy for Pro-Poor Settlements**

The PURC, in collaboration with GWCL and WaterAid, has plans to undertake pilot projects to obtain lessons in the provision of water supply to poor and low-income households. These lessons will inform PURC's social policy, offer GWCL options for supply of water to poor communities (Nyarko et al, 2004). These interventions will test community-management of bulk water supply systems, supply through standpipes and involvement of women in water delivery to deprived households. Other objectives include improving the quality of water delivered through secondary suppliers and the elimination of illegal connections (Nyarko et al, 2004).

The pilot projects are planned for:

- ✓ South Teshie (Nshorna) in the Accra East Region (ATMA) where improved bulk storage arrangements will be put in place.
- ✓ Glefe-Agege in the Accra West Region (ATMA), where public standpipes will be provided.

## **3.4 Urban Water Supply Institutions**

### **3.4.1 Water Sector Stakeholders**

The key players of urban water regulation, policy formulation and implementation are shown in Table 3.2.

**Table 3.2: Institutional Roles of Stakeholders**

<b>Institution</b>	<b>Role</b>
The Water Resources Commission (WRC)	ensures effective and efficient management of the natural water bodies
State Enterprises Commission (SEC)	for long set the objectives and operational targets for water provision institutions
Ministry of Water Resources, Works and Housing	formulates and implements policies for national water supply particularly urban water delivery
Water Restructuring Secretariat (WRS)	is an ad hoc body that advises the sector minister and oversees the introduction of private sector participation in urban water supply
Environmental Protection Agency (EPA)	ensures that the activities of Public and Private water operators do not harm the environment and water bodies
Ghana Standards Board (GSB)	sets standards for drinking water quality
Ghana Water Company Limited (GWCL) – <i>owned by GoG and supervised by Ministry of Water Resources, Works and Housing</i>	, is responsible for the production, distribution and conservation of water throughout Ghana for public, domestic, commercial and industrial use. GWCL initially had responsibility for operating 210 water systems nationwide until the late 1990s, when it transferred most of the smaller systems to the Local Government Authorities (viz. District Assemblies) through the Community Water and Sanitation Agency, and retained the management of the 80 larger/urban systems
Community Water and Sanitation Agency (CWSA)	works with the District Assemblies (DA) to ensure sustainability of water service delivery in the rural communities
Ministry of Local Government, Rural Development and Environment (MLGRDE)	Responsible for co-ordination, management and treatment of wastes in rural and urban. It does so through the Metropolitan/municipal and District Assemblies
Water and Sanitation Development Boards (WSDB)	managers of their community water supply systems. They set tariffs and offer application procedures, connection and re-connection fees, maintain financial records and manage the water delivery facility
District Water and Sanitation Teams	provides technical approval for WSDB

(DWST)	and the financial status of the community water system
Water and Sanitation Committees (WATSANs)	Community level voluntary group that monitor, evaluate and educate the communities on water and sanitation issues
Public Utilities Regulation Commission PURC	by Act 538 to regulate and oversee the provision of water and electricity supply 'to consumers'. The PURC therefore plays a crucial social role which is very paramount in consumer services standards regarding water supply and electricity supply in Ghana. The functions and activities of the PURC are well expatiated below.

### 3.5 Urban Sanitation Systems

#### 3.5.1 Urban Human Waste Management

On-site sanitation is the main form of excreta disposal in Accra and will remain the most appropriate level of service for the urban poor in the medium term. Despite heavy public investment in sewerage systems in most primary and some secondary cities, typically, only 10-15% of the urban population benefit from access to the sewer network. About 80% of the population depends on on-site facilities such as septic tanks and pit latrines which, unlike sewers, are usually the responsibility of households. Urban sanitation service coverage in cities is about 40%, which is population having access to some forms of acceptable improved household sanitation facility.

Majority of urban poor households use public toilets, communal or shared pit latrines, and other unimproved latrines such as bucket latrines, which were banned over a decade ago. These are still widely prevalent and tolerated by District Assemblies (DAs) in a few urban centres such as Accra due to lack of alternatives. In some densely populated settlements such as Sabon Zongo and Nima in Accra, the "wrap and throw method" or flying toilets is prevalent. The introduction of private sector management of public latrines in several cities has ensured a general improvement in the standard of services offered but the situation is far from satisfactory. (Page 2: Sanitation in Ghana). Solid waste management is a major challenge facing the Accra Metropolitan Assembly. The way in which solid waste is disposed of is of a major concern to the residents of informal settlements and poor communities. Domestic and industrial waste is simply dumped on unprotected land, which is accessible to animals and children. Lack of bins in urban poor communities also exacerbates the solid waste problem and leads to the dumping of refuse on streets, in storm water drains and in open areas, resulting in pollution problems and flooding when rainfall occurs. There are few informal or community-based refuse collection initiatives in most of the areas at the time of the study, though a few enterprising people were said to

be running some recycling businesses. Bottles, steel components, cardboard boxes and paper were being collected and later sold to recycling companies. Some of the factors that have led to the current state of affairs include lack of awareness amongst communities about waste, or about the environmental, social and economic implications of refuse; exclusion of communities in assessing, planning and implementing solid waste management and community attitudes towards waste as well as institutional arrangements of people and organizations responsible for refuse management.

**Table 3.1 Household sanitation coverage:**

	<b>2004 coverage</b>	<b>2015 target</b>	<b>Est. Popn.</b>	<b>Required Investment</b>
<b>Rural</b>	<b>31</b>	<b>85</b>	<b>9.3m</b>	<b>241million</b>
<b>Urban</b>	<b>40</b>	<b>80</b>	<b>6.8m</b>	<b>748million</b>
<b>Total</b>	<b>35</b>	<b>82</b>	<b>16.1m</b>	<b>989million</b>

**Source: Sanitation In Ghana, Trend Ghana paper.**

### **3.5.2 Urban Refuse Management**

Refuse generation, both domestic and industrial, in Accra and other major cities increased rapidly by nearly three-fold over the last two decades, and may double in volume in the current decade as a result of increase in population and changes in people's life style. These changes, for instance led to the use of polythene bags, which are bio non-degradable, for bagging water, wrapping cooked food and for marketing, in place of leaves and cane baskets.

Environmental degradation and pollution resulting from indiscriminate littering and garbage disposal has become a major problem that has confronted the Accra Metropolitan Assembly (AMA) for a long time. Consequently, successive chief executives of the AMA and city authorities have over the years battled with the daunting task of dealing with the problem of solid and liquid waste management.

Managing waste in the city has obviously become more and more critical, especially over the past eight years, since the increasing solid waste generated in the metropolis has not received proper management, collection, transportation and disposal.

Records indicate that out of the 2,000 tonnes of waste presently generated daily in Accra, only 1,500 tonnes is collected and out of the percentage that is collected, only a fraction is properly disposed off. The uncollected solid waste is often dumped chaotically in the streets and drains, and this poses serious health hazard to both humans and animals. According to the Accra Metropolitan Assembly an amount of Gh c 450,000/month (US \$ 450,000) is spent on waste collection. *An amount of Ghc10 (US\$10) is paid per every 1 tonne of waste cart to the final destination.* This huge amount is borne by the Accra Metropolitan Assembly from its local generated revenue with some support from the Ministry of local government, Environment and Development. Throughout the city, almost all central waste containers can be seen overflowing with

garbage generated daily by a population of about three million. They are problems of inadequate refuse containers at designated sites, inability of the Metropolitan Authority to transport and dispose off waste due to inadequate equipments and non-payment of private refuse management contractors among others

### **3.5.3 Urban Sewerage and Waste Water Management**

Storm and waste water drains are very few in the Accra Metropolis. Where they exist, they are open, and are neglected and blocked and, in some areas such as Nima, Mamobi, and Agbogloshie, they have become much wider and deeper than normal due to unchecked erosion. In some parts of Nima and Mamobi, new storm and waste water drains were constructed in 2000/2001 by the government. Most households in the study areas dispose of water used for bathing and other household purposes in the following ways:

- In open drains, which are many;
- By the roadside ;
- Around their yard
- In pit latrines

Consequently, this indiscriminate dumping of waste water and the absence of storm and waste water drains in most of the poor and informal settlements cause flooding problems, especially in the rainy season, and make roads impassable. The wastewater that collects in ditches also provides ideal conditions for the breeding of mosquitoes and flies, which are responsible for malaria, bilharzia and other sanitation related diarrhea diseases.

### **3.5.4 Urban Sanitation Management Institutions**

Despite the stated importance of environmental health and hygiene education as a means of improving sanitation, evidence from the field suggest that only a small number of utilities are directly involved in these activities (Better Water and Sanitation for the urban poor: Good practice from sub-Saharan Africa, 2003,pp65). For the most part, the Metropolitan Assembly is responsible for environmental sanitation. Given that many utilities are still not responsible for sewerage, let alone sanitation, it is not surprising that they limit their involvement in hygiene activities.

Utilities or local government authorities that have responsibility for sewerage systems are often involved in activities relating to on-site sanitation through the development of sludge tipping sites and drying beds. In some cases they may also provide pit-emptying services. There is an upsurge of private sector participation involvement allowing them a significant role in pit-emptying and disposal services. There are also four (4) pit-emptying and disposal sites in the Accra Metropolis where waste is treated and discharged into the lagoon. The environmental consequences include pollution (with potential impact on surface and ground water contamination) as well as public health risks. More than 20 private companies are involved in sewage emptying business in the Accra Metropolis. Pit-emptying business is most privatized since about 90% is controlled by private companies. They managed 1,500 tonnes of solid waste per day and 800 tonnes of sullage per day.

The polluter- pay principle of waste management is yet to be applied in most parts of Accra (except in the high class residential areas of Roman Ridge, Dworwulo). Currently waste management is paid for by the Government through the Accra Metropolitan Assembly. There are eighteen (18) private waste management companies in the Accra Metropolis.

In the 1990s, poorly maintained public latrines were a common feature of many urban centres. Unable to afford the costs of upkeep, Metropolitan, Municipal and District Assemblies (MMDAs) lacking the financial resources are gradually turning these over to the private sector through lease contracts. As a general rule, public toilets are constructed and owned by the MMDAs or government with funding made available through projects and donors. These facilities are then leased to a private sector operator for an initial deposit fee plus a monthly or annual rent or lease fee. There are more than twenty of the private companies in Accra.

Fee structures are approved or set by the Metropolitan Assembly, or higher levels of government and users are charged under various different arrangements, including a **cost recovery rate**, which allows for funding of new latrines. Whether it is compared to the absolute value or the cost of the facility. This is more costly to the user as they charged a commercial rate. **A token amount**, where a small user fee encourages private participation even in less profitable low-income residential areas and simultaneously permits access to low income residents. This presupposes that the Metropolitan Assembly can allocate other revenue or find grant for new facilities. Yet, the **no user charge** is practiced in some countries where facilities have been constructed and funded by an NGO and multi-lateral agencies. There is no fee charged to users. Leasing public latrines to the private sector is highly profitable where such facilities are located near markets and transport terminals.

### 3.5.6 Urban Sanitation Policies

Ghana has a number of policies which identify environmental protection and the improved management of human settlements as key elements underlying health and development. The key policy documents include:

- National environmental sanitation policy
- Community water and sanitation policy
- Occupational health and safety act
- Ghana National Water Policy
- Guidelines for the landfill/safe and sound management of the Bio-medical Wastes in Ghana
- Manual for the preparation of district waste management plans in Ghana.

The Ghana National Environmental Sanitation Policy (2007) has a vision to develop a clear nationally accepted vision of environmental sanitation as a social service and a major development for improvement in health and living standards of Ghanaians. What remains to be seen is the how to operationalize the policy principles of sanitation as an economic good, polluter pay's principle as well as emphasis on community participation and social intermediation.

### **3.6 WATER RESOURCES**

Accra is supplied with water from two sources: the Densu River (Weija Water Works) and the Volta River (Kpong Water Works). Central to the provision of water are the issues of water quality, sufficiency and continuity of supply. Raw water quality in the Weija dam is poor due to human activities that generate waste, with untreated sewage, fertilizer and pesticide runoff affecting the water quality. The quality of raw water from the Volta River is better due to two large dams that serve as sedimentation basins for the raw water. However as the population in the surrounding villages will continue to grow, the situation is likely to worsen at Weija and Kpong, affecting the water quality. Intensification of human activities such as farming, fishing along the river banks, irrigation, navigation and encroachment with its resulting siltation consequences are major threats to surface water in water. All these factors may conspire to deny individual households or entire communities of a continuous reliable supply of drinking water.

In the past, Government did not have a clearly articulated policy for the water sector as a whole. However, with the establishment of a water Resources Commission in 1996 and ongoing donor support for the development of a water resources strategy, the wider water issues, including those relating to rivers, allocation of scarce supplies and pollution are receiving the necessary attention. Much of these have been written into the new water policy ( 2007). This is an essential step for the management of water resources as an increased number of independent water supply systems become established.

### **3.7 Finance and Resources**

With the launch in 1994 of the national community water and sanitation programme ( NCWSP), several multi-lateral institutions and governments as well as NGOs have contributed in various ways to its success. The major financiers include the African Development Bank(AfDB), Agence France de Development(AFD), CIDA-Canada, Danida-Denmark, DfiD-UK, European Union(EU), IDA(World Bank), JICA- Japan, KfW-Germany, UNDP, UNICEF and Government of Ghana. Non-Governmental Organizations such as WaterAid, World Vision International (WVI), Church of Christ and Plan International Ghana are some of the major funding agencies.

In 2005, the World Bank launched a US \$ 25 million small towns water project. The AFD spent US\$ 24 by 1998 on Central Region Rural Water Supply and Sanitation Project. Between 2001-2004, the EU spent €15.75million in the construction of small towns water facilities in the Western, Ashanti and Brong Ahafo Regions of Ghana. The EU also spent €15 million in Northern Region between 2002-2005 in the construction of boreholes, wells and latrines.

Under the plans to improve the funding and management performance of the utility the GoG has engaged a private sector management contractor. The GWCL signed a management contract with Aqua-Vitens Rand Ltd (AVRL), a Dutch and South African multinational private sector. Operation started in 2006. The project comprises four components: system expansion and rehabilitation; Public-Private Partnership Development; Capacity Building and project management; severance programme.

Financing for the project is being provided by the World Bank –one hundred and three million( US \$ 103,000,000);Nordic Development Fund- five million(US \$ 5,000,000); and the Government of Ghana –twelve million(US \$ 12,000,000). The total amount of such financing amounts to one hundred and twenty million United States of America Dollars (US \$ 120,000,000).

### **3.8 Main obstacles to urban poor access to services**

Access to water by the poor is restrictive in several ways, for example, by prohibitive charges, daily or seasonal fluctuation, unavailability or lack of supplies to remote sections ( WHO, 1997). In the Accra Metropolis, water is scarce and has to be transported over long distances by road or on foot, the cost of drinking water absorb a significant proportion of the average daily income of poor consumers in Nima, Mamobi, Teshie, Nungua and other poor settlements. In some areas, seasonal and hydrological factors may conspire to deny individual households or entire communities of a continuous reliable supply of drinking water. The expected increased in population of Accra Metropolis has raised considerable debate about its ability to meet future water supply needs. Since 1970,global demand for water has risen at roughly 2.4% per annum(Clarke 1993 cited by Yussif.A.B, 2006 in Water Vending in Tamale).

The main problems of access to WATSAN services in Accra include:

- ✓ Irregular water supply
- ✓ Development of new estates that has outstripped supply
- ✓ Increase industrial use of water by industrial users such as Coca Cola, Printex, Small and Medium scale enterprises
- ✓ Damaged old pipe lines and the consequent leakages
- ✓ Limited number of household and public toilets and refuse dumps.

### **3.9 Conclusion**

The study clearly shows that sanitation services and facilities are seriously lacking in urban poor communities, and that there are numerous issues that affect the provision of sanitation in such situations. The most notable factors include: the absence of focused responsibility at national level for planning, development and financing of sanitation in informal settlements; the limited capacity for community support within the councils at local government level; and lack of clarity in defining the roles and responsibilities of the various stakeholders. Perhaps, the most significant constraint to sanitation provision in urban poor communities is the illegality of many of these areas. The lack of tenure not only discourages sanitation agencies from providing services but also discourages households from investing in good sanitation facilities, because of their fear of being moved on to other locations. There is an urgent need, therefore, to develop guidelines that should help bring together the thousands of poor people living in informal urban areas and the sanitation agencies who are responsible for the provision of services.

## Section 4: NATIONAL

### 4.1 Background and context

The health status of a community and the well being of its residents, is dependent on the availability of and access to quality and affordable water and sanitation services. The environmental health profile of most urban communities in Ghana is characterized by the predominance of infectious and communicable diseases related to inadequate water and sanitation provision. Diseases commonly reported in these areas include diarrhea, skin diseases, malaria and intestinal worms. Attempts at improving urban water supply and sanitation services in Ghana have been overwhelmed by the 4.5% urban population growth rate, due mainly to the massive influx of rural migrants who settle in slum areas.

Ghana has made considerable progress in improving sector governance, through the development of policies, institutional frameworks and building the capacity of actors in the water sector. However, sector funding remains below required levels to meet the agreed goals. WSS financing in the past has been about a third of required investments. Ghana could be on track to achieve the water supply and sanitation MDGs if more funding is made available and on-going sector reform efforts are continued (*Getting Africa on track to meet the MDGs on water and sanitation.. Page 25*).

In 2004, Ghana's water supply coverage was 56% (52 percent rural/small towns and 61 percent for urban areas). For sanitation, coverage was 35% (32 percent for rural/small towns and 40 percent in urban). The total cost to achieve 85% coverage is estimated at US \$ 1.6 billion - an annual US\$ 68million for the rural/small towns WSS, and US\$ 81million for urban water supply. (*Getting Africa on track to meet the MDGs on water and sanitation. Page 25*)

Hence, Ghana faces a major funding challenge in addressing its WSS crisis. Although WSS is clearly articulated in national strategies and expenditure frameworks, the link between targeted goals and resource allocations remains limited. Further, the WSS sector is heavily dependent on donor funding (over 90%) and there is little predictability of sector inflows. (*Getting Africa on track..., pg27*).

In the urban area, Ghana faces serious constraints to meeting the challenge of providing adequate water for all residents. These include the dire and worsening financial condition of the urban utility. The Ghana Water Company Limited (GWCL) has suffered insufficient sector investment over the last ten years. This is further exacerbated by weak management and implementation capacity caused by human resource issues.

Approximately 10.7 million people 53% have access to improved water supplies in Ghana. Sixty one percent of the 8.4 million residents in the country's urban areas have improved water supply services provided by GWCL's networks. Hence, 3.3 million urban residents in Ghana depend on alternative water sources. (Ghana Water Sector Assessment, 2005) [www.wateraid.org](http://www.wateraid.org)

With GWCL's unaccounted-for water (UFW) at about 50% of total output, and delivery of about a third of the daily demand of 763,300m<sup>3</sup> it is not unexpected that widespread rationing is the easy way out for the utility.

Several factors have been responsible for this present state of affairs some of which include:

- ✓ Increased urbanization, which is putting tremendous pressure on existing utilities;
- ✓ Previously low tariffs which affected GWCL's ability to rehabilitate its facilities and carry out expansions in water supply;
- ✓ Management challenges including low revenue collection; and
- ✓ Ineffective mechanisms to expand the water network and ensure accessibility to potable water supply to low-income and peri-urban consumers.

## **4.2 Sector Development Agenda**

The Government of Ghana has now set itself the objective of restructuring the Urban Water Sector in order to make it more responsive to the increasing demand for better service delivery and to enable GWCL attain financial sustainability and service efficiency. The Ghana Water Company Ltd is therefore implementing an Urban Water Project (UWP) which has the following redefined components:

- 1) System Expansion & Rehabilitation,
- 2) Public-Private Partnership Development,
- 3) Capacity Building & Project Management and
- 4) Severance Program.

New connections to the piped network by households in urban settlements between 1990 and 2000 are 1900. The projection for the period 2001-2015 in line with the MDGs in the GPRS is 3100. Increases required to attain the MDGs is 65%. Alongside these increases in inputs, the sector also needs to deliver huge improvements in its own performance.

The monthly numbers of households which must gain access to water and sanitation for the first time are between 2 and 36 times greater than what has been achieved between 1990 and 2000.

## **4.3. Urban Water Supply Policies**

The Government of Ghana (GoG) considers the provision of potable water as a critical element in its policy for the sustainable economic development of the country.

This has been clearly stated in its policy statements and the Ghana Poverty Reduction Strategy (GPRS) document recognizes that increasing access to potable water is key to achieving better health and sustained poverty reduction. Its strategies thus focus on improving access in rural, peri-urban and un-reached poor urban areas through effective management of urban systems, safe liquid and solid waste management, and capacity building for environmental health. Among some of its key objectives is ensuring

the provision of potable water supplies. The GoG is focusing on improving access to water in rural, peri-urban and un-served poor urban areas (Ref. GPRS 2003-2005).

The basic policy issues guiding the new focus of the urban water project (UWP) include:

- ✓ Mobilizing adequate financial resources for investment in refurbishment and extension of coverage of urban water systems;
- ✓ Strengthening the Ghana Water Company Ltd. (GWCL) to effectively manage service contracts and extensions;
- ✓ Establishing a unit within the MWRWH to monitor provision of water to the poor;
- ✓ Bringing tariffs to cost recovery levels to make the operations of urban water systems sustainable;
- ✓ Providing direct state interventions in areas where there is a marked gap in service delivery;
- ✓ Creating partnership programmes with NGOs which have a comparative advantage in responding effectively to the needs of the vulnerable and excluded.

The ultimate goal of water sector development is to provide direct connections for as many consumers as possible, but this is a very expensive strategy. There are huge investment requirements in development of water resources and treatment to serve the much higher water use by consumers with piped connections.

The Government of Ghana (GoG) is bringing in the private sector in the hope that there will be greater efficiency and much needed investments for expansion of water supply coverage particularly in pro-poor urban centers.

The introduction of the private sector imposes on key stakeholders of the urban water the challenge of ensuring that the needs of the urban poor and vulnerable are adequately catered for, at the same time recognizing the interests of the provider to make adequate return to ensure sustainable services.

Within the context of urban water systems management, the GPRS seeks to improve service delivery through the design of monitorable implementation plans for effective programming of linked activities with the GWCL (as utility), private operators (including SWEs) and the PURC (the regulatory body). The urban poor households' (and particularly those living in compound houses) access to water will be promoted through a reassessment of the lifeline tariff.

#### **4.3.1 Water Policies and the GPRS II**

According to the Growth and Poverty Reduction Project (GPRSII 2006-2009), improving access to safe water and sanitation is critical to achieving favourable health outcomes, which in turn facilitate economic growth and sustained poverty reduction. The following priorities will guide the delivery of safe water and sanitation in the next four years (2006-09):

- accelerate provision of safe water in rural and urban areas;
- accelerate the provision of adequate sanitation; and
- improve environmental sanitation in urban and rural areas.

*(Page 51 GPRS II)*

The strategies to accelerate the provision of safe water in the urban areas will include the following:

- Establish regional offices for PURC;
- Mobilize new investments for urban water systems;
- Extend distribution networks especially to low income consumers;
- Strengthen the management of GWCL to enhance service delivery;
- Assess lifeline tariff for poor urban household; provide stand-pipes for the poor, provide, in the building code, an enactment requiring all building plan to include rain harvesting facilities;
- Support the introduction of private sector into management and operation of the water supply systems under management contract and/or lease contact arrangement and to disseminate information on safe water.

*(Page 52 GPRS II).*

#### **4.3.2 Water Policies and the Urban Sector Reforms**

In little more than a decade Ghana has transformed the structure and strategy of its water supply sector. In 1990, external support agencies, NGOs and government parastatal organizations planned and constructed water supplies for the entire nation, and the parastatal was also responsible for maintaining them. By 2000, District Assemblies and communities in Ghana played a significant role in planning supplies, the private sector had become active in drilling and other water supply services, and communities had full responsibility for maintaining their supplies.

The new programme and strategies are attracting extra funds and work is accelerating. This reform process started with an extended dialogue with the major stakeholders in the sector, out of which a new water and sanitation policy was developed. The programme was then implemented in several large pilot projects, supported by a large number of external agencies, and finally the lessons from those projects were used to refine the national programme. Certain conditions specific to Ghana favoured the new programme, but other elements in Ghana's path to success are replicable. The latter includes: the extended policy dialogue; pilot testing; the phased transfer of responsibilities to districts; and the involvement of NGOs for community mobilization.

The Ghana Water Company limited (GWCL), (previously called Ghana water and Sewerage Cooperation) a parastatal organization under the Ministry of Water Resources, Works and Housing( MWRWH), initially had the official responsibility for urban and rural water supply and sewerage. Most of the GWCL staff and resources, however, were devoted to the urban sector. The public sector also dominated the construction of water infrastructure throughout the country. The vast majority of urban water supplies are through the GWCL mains.

Since 1993, the GoG initiated reforms in the sector to enable various sector actors to play significant roles in the delivery of services to improve efficiency, and achieve financial equilibrium for the sector. Key elements of the reforms have been:

- The decoupling of rural water from urban water supply in 1994, and establishment of the Community Water and Sanitation Agency in 1998-Act 564.
- The decision to implement an increased private sector participation (PSP) in the management of the urban water sector in 1996;
- The establishment of water oversight and regulatory bodies – PURC and Water Resources Commission

The establishment of Water Directorate within MWRWH to take its ownership and peer oversight role in the formulation and monitoring of sector policy and performance.

### **4.3 Institutions/Agencies/Governance**

The Key institutions in the delivery of urban services:

- Ministry of Water resources Works and Housing:
- Ghana Water Company Limited
- Public Utilities Regulatory commission
- Town and Country Planning

Since 1993, the GoG has initiated reforms in the sector to enable various sector actors to play significant roles in the delivery of services to improve efficiency, and achieve financial equilibrium for the sector. Key elements of the reforms have been:

- The decoupling of rural water from urban water supply in 1994, and establishment of the community water and sanitation agency.
- The decision to implement an increased private sector participation (PSP) in the management of the urban water sector in 1996;
- The establishment of water oversight and regulatory bodies – PURC and Water Resources Commission

The establishment of water directorate within MoWH to take its ownership and peer role in the formulation and monitoring of sector policy and performance.

### **4.4 FINANCE** **Funding Needs**

Ghana relies heavily on external donor support for the water sector. From 1990-2003, major donors contributed approximately US \$ 500 for water and sanitation projects. Urban water received the highest single amount mainly attributable to the World Bank's US \$ 120 million water sector rehabilitation project. In terms of volume, most donors focused on rural and small town water supply schemes together worth more than US \$ 270 m. Sanitation received significantly less attention.

## **Sources of Funding**

Ghana relies heavily on external donor support for the water sector. From 1990-2003 major donors contributed approximately \$500m for water and sanitation projects. Urban water received the highest single amount mainly attributable to the World Bank's US\$120 million Water Sector Rehabilitation Project (WaterAid-National Water Sector Assessment, 2005 [www.wateraid.org](http://www.wateraid.org)).

Planned investment by some donors (excluding NGOs) is estimated at \$185m for the period 2004-2010, some 85% of the total planned finance. In addition, a multi-donor budget support (MDBS) system is being established where donors pool all of their funds. This will then enable the Government to allocate the funds in line with its own development and sector priorities. Together therefore Government and donors should close the annual water finance gap of \$68m. Civil society organizations such as the Coalition of NGOs in Water and Sanitation are already campaigning for increased government commitments of at least 20% of all sector investments as against the current 10%.

Annual sector spending has been low thus pointing at low commitment of government to the sector demonstrated through the on-going reforms which is transforming the structure and strategy for Ghana's urban water sector. According to the fact box below, while the annual spending level for urban as at 2007 stood at US \$ 20 million spending for rural is US \$ 25million. The total annual spending on water is US \$ 45.5 million 2005/06 against US\$ 17 million in 2002/03. Even though spending for the sector has increased, the funding gap is still huge and therefore requires deeper commitment in fund allocation.

The financial requirements grossly exceed the existing commitments of both Government and donors to the sector. In 2002 for example, the Government's own budget allocated 21% of total expenditure to poverty reduction activities under the Ghana Poverty Reduction Strategy (GPRSII). Just 1% of this poverty reduction spending- that is 0.2% of all spending – was allocated to water and sanitation.

The fact box below outlines the trend in financing of water and sanitation.

**Table 4.6 Fact Box**

Population 2003-Total(rural/urban)	20.2 (11.8/8.4)
Population projection for 2015 Total(rural/urban)	26.6 ( 14.0/12.6)
Population growth rate ( rural/urban)	1.5% / 3.5
Access to safe water	Rural : 52% (end of 2005) Urban : 55%
Access to basic sanitation	Rural: 28%( 2002) Urban : 40%(2002)
Population reached with water annually	383,000
Population to reach with water/yr to meet MDG	596,000 Annual Popn gap : 213,000

Annual Finance Need for water	Urban: \$ 110 million/yr Rural : \$68 million Total : \$ 178 million
Current Annual spend on water	Urban: \$ 20 million Rural : \$25 million <b>Total : \$ 45 million</b>
Annual MDG Spending gap for water	Urban: \$ 90 million Rural : \$43 million <b>Total : \$ 133 million</b>

**Source:** CWSA strategic Investment Plan (2006-2015) and Ghana water Company

From triangulated information ( government, NGO and others) the water and sanitation MDG targets require spending of \$ US 110M/yr for urban and \$ US 68M/yr for rural. The total annual funding need is a whopping \$ 178 million \$ 90 million while actual annual expenditure at present is \$ 45 million. \$ 90 million. The funding gap therefore stands at \$ 133 million for urban and \$ us 43 million for rural (An Assessment of Ghana’s water sector by WAWI and WAG, 2007).

#### 4.5 Water Resources

Accra is supplied with water from two sources: the Densu River (Weija Water Works) and the Volta River (Kpong Water Works). Central to the provision of water are the issues of water quality, sufficiency and continuity of supply. Raw water quality in the Weija dam is poor due to human activities that generate waste, with untreated sewage, fertilizer and pesticide runoff affecting the water quality. The quality of raw water from the Volta River is better due to two large dams that serve as sedimentation basins for the raw water. However as the population in the surrounding villages continue to grow, the situation is likely to worsen at Weija and Kpong, thus affecting the water quality. Intensification of human activities such as farming, fishing along the river banks, irrigation, navigation and encroachment with its resulting siltation consequences are major threats to surface water treatment for drinking purposes. All these factors may conspire to deny individual households or entire communities of a continuous reliable supply of drinking water. In the past, Government did not have a clearly articulated policy for the water sector as a whole. However, the Ministry through the Water Directorate and ongoing donor support for the development of a water resources strategy, the wider water issues, including those relating to rivers, allocation of scarce supplies and pollution are receiving the necessary attention. Much of these have been written into the new water policy( 2007). This is an essential step for the management of water resources as an increased number of independent water supply systems become established.

#### 4.6 MAIN OBSTACLES TO URBAN POOR ACCESS TO SERVICES

The 2005 UN Human Development Report classified Ghana as a medium ranked country in terms of population with access to improved sanitation and safe water resource. As at 2002, overall sanitation coverage was 58% with 79% for safe water (HDR 2005.) Poor urban communities use different sources of water for different purposes. In most cases, tap water is used for drinking and cooking, whilst well and river water is used for

washing. The main reason for this is the long distance to reach a tap that provides safe water, whereas the alternative sources are nearby and are either free or cost only a small fee compared to safer sources.

In the Accra Metropolis, over 60 % have access to potable water. However, whilst these overall statistics do indicate some differences within particular settlements, they also hide other differences between residential areas. In Greater Metropolis for instance, areas such as Adenta, Teshie, Nungua, Nima and other places use water from unprotected sources while others use water that is red in colour, due to contamination, from an unreliable borehole, and some use both, for different purposes.

Household and communal taps have not provided water for several months, resulting in long, tiring and time consuming journeys for the women and children, whose responsibility is usually to collect drinking water. Women and girls may be at risk of attack during such journeys, particularly at night. Some households in Nima and Teshie areas walk nearly two kilometers to fetch water (Building Links for improved sanitation in poor urban settlements pp21).

Also, sanitation services does not satisfy the wishes of the urban poor. A significant number of people are dissatisfied with their sanitation facilities, ranging from unimproved pit-latrines to communal facilities provided by local authorities. The major problems attributed to pit latrines include bad smells and poor cleanliness; presence of rodents and insects; poor latrine construction materials, shallowness of pits; lack of affordable pit emptying facilities among others.

#### **4.6 Conclusions and Recommendations**

To meet it's ambitious target of 85% access to water by 2015 in the face of tremendous challenges in bridging the low sanitation gap, Ghana needs to increase the water and sanitation outputs substantially each year .The funding requirement-need versus actual, show a huge funding gap of \$ 133 million annually for both water and sanitation. However, for effective utilization of the funds- both existing and potential capacity levels at the national and local levels need to improve drastically. To complement it, realistic planning at these levels must be emphasized.

In urban areas, the plan to improve capacity by awarding a management contract to a private operator (AVRL in Accra) needs to carefully implemented and monitored to ensure that the improvements also benefit the poorest, vulnerable and socially excluded people.

To ensure that there is coherence in the water sector, those involved – Government, donors, and NGOs need to identify an effective mechanism for co-ordinating themselves and improving poverty targeting and spending. Accountability mechanisms should be established and operationalized to ensure improved performance of service providers and utilities in both the private and public sectors.





WaterAid transforms lives by improving access to safe water hygiene and sanitation in the world's poorest communities. We work with partners and decision makers to maximise our impact.

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