COMMUNITY EXPECTATIONS OF FUNSI SMALL TOWN WATER SYESTEM IN THE UPPER WEST REGION OF GHANA

By

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A Thesis Submitted to the School of Graduate Studies,
Kwame Nkrumah University of Science and Technology,
in Partial Fulfillment of the Requirement
for the Award of a Degree
Of

MASTER OF SCIENCE
In Development Planning and Management
Faculty of Planning and Land Economy

OCTOBER, 2010

CERTIFICATION

I hereby declare that this submission is my own work towards the M.Sc. in Development Planning and Management, and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

To help address water problems in Ghana, Community Water and Sanitation Agency (CWSA) was created in 1994 under the framework of the Ghana decentralization policy and became autonomous in 1998. In communities with fewer than 50,000 inhabitants, water supply systems are owned and managed by the respective community on a demand-driven basis, and 5% of the project cost is paid by the beneficiary community. Therefore, the rural communities and small towns form gender-balanced voluntary groups which are represented by elected water and sanitation boards, including one or two village-based caretakers who received special training in repair and maintenance. (CWSA, 2008).

Under the Community Water and Sanitation Programme (CWSP), Funsi is benefiting from a Small Town Water System (STWS) currently under construction to be completed by the end of April 2010. Due to their poverty, the community could not pay the 5% mandatory community contribution, so the World Bank and the Government of Ghana accepted to sponsor the project by paying 100% of the project cost. Funsi is the district capital of the Wa East District, the only district capital in Ghana without electricity.

Considering the problems and the poverty situation in the district coupled with the absence of electricity in the district capital, the success and maintenance of the project is uncertain. It is this uncertainty that necessitated this research; to enquire about the expectations of the people regarding the STWS. The study assessed the expectations during the construction and after the construction, and the procedures for management and sustenance of the STWS.

The study adopted a qualitative research approach and applied quantitative methods in analyzing the data collected. Thus the researcher use purposive sampling to select the sampling size. Both primary and secondary data were used. Both primary and secondary data were used. Interview guides and structured questionnaire were designed to guide the interview process for the primary data collection. Secondary data was obtained from the Wa East District Assembly, the CWSA and the consultant of the project. Photographs of relevant sites were captured and displayed for vivid presentation, clarity and appreciation.

Purposive sampling and simple random sampling were used to select the sample population of 80 respondents.

The outcome of the study showed that there are high anxiety and expectations from the communities about the STWP despite the absence of electricity. A standby generator will temporarily be used while the people wait on the electricity. Mechanisms have been put in place to ensure the success and sustenance of the STWS. The mechanisms including the setting up of a Water Management Board, coming out with a policy to raise revenue through the sale of water known as 'pay as you fetch policy', fund raising strategies, setting up rules and regulation to govern the operation of the system.

As part of the measures put in place to sustain the STWS, the Management Board came out with a resolution to enroll all the bore holes to the 'pay as you fetch' policy, and to disallow private connections for the first two years after the take-off of the project.

The study identified some challenges that could cripple the success and sustenance of the project. These include some socio cultural practices and beliefs such as burying of corpses in and around houses, the absence of a banking facility, the absence of electricity, high unskilled labor and poor planning by the DA. Based on these issues, policy guidelines, and appropriate recommendations have been proposed.

It was identified that the negligence of the DA is a contributory factor to the failure of most STWS in the past, there fore it is recommended that the DA should pay adequate attention to the operation of the water system; the management, and the technical aspects. The DA should identify a schedule officer to the project who will be in charge of monitoring, reporting, and identifying training needs of staff and management of the Board. Secondly provision should be made under the National Cultural Policy to allow the Cultural Institution of Ghana to come out with and give authority to the National Council of Chiefs to constantly revise cultural practices and give advice to eliminate or discourage those who hold on to such practice

ACKNOWLEDGEMENTS

As always, I thank Almighty God for everything He has done in my life, His provision of health, protection and the means to pursue this programme.

I wish to express my profound gratitude to Dr. Rudith King for accepting the task of supervising this research work. Mom, your assistance to me far exceeds your responsibilities as an academic supervisor. I appreciate your time, practical help and contribution to this work. I also wish to acknowledge the advice, care and support I received from Dr. Imoro Braimah (Director of SPRING progamme, Department of Planning KNUST)

I am grateful to the authorities of Wa East District Assembly for permitting me to use the District Assembly's Conference Hall for my stakeholder forum, allowing me to use their photocopier to photocopy my questionnaire, just to mention a few. I thank all the members of staff of the Wa East District who assisted me to administer the questionnaires.

To my pastor Reverend Godwin Kasintenalowe, Church of Pentecost Nalerigu District, I thank you for your prayer support. I am indebted to my parents Mr. Joseph Bugri Nantomah (Chief Asumah) and Madam Poa-naaba Tia my mother for taking good care of me and sending me to school. To my entire sibling I appreciate your love and support. To Esther Atuku my wife and Hannah Nantomah my little lovely daughter I appreciate your love and support.

To Mr. Yidana Abdul-Razak District Electoral Commissioner, Nadowli, I thank you for taking time out of your busy schedules to prove read my work. To all my friends, colleagues and course mates I thank you for your ideas. To all those who contributed in diverse ways to the outcome of this work but are not mentioned here, I remain grateful to you all, May God bless you.

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LIST OF ABBREVIATIONS

AMCOW	African Ministerial Conference on Water
CWSA	Community Water and Sanitation Agency
CPHD	Community Partnerships for Health and Development
DHD	District Health Directorate
DRA	Demand Responsive Approach
DPMG	District Poverty Monitoring Group
DPCU	District Planning Coordinating Unit
DWST	District Water and Sanitation Team
GIRWP	Gender Integration in Rural Water Projects
GPRS	Ghana Poverty Reduction Strategy
MDAs	Ministries, Departments and Agencies
MLGRDE	Ministry of Local Government, Rural Development and Environment
NWP	National Water Policy
NGO	Non-Governmental Organization
NCWSP	National Community Water and Sanitation Program
NEPAD	New Partnership for African Development
NDPC	National Development Planning Commission
RPMG	Regional Poverty Monitoring Group
RPCU	Regional Planning Coordinating Unit
RWST	Regional Water and Sanitation Team
STWS	Small Town Water System
STWP	Small Town Water Project
SEA	Strategic Environmental Assessment
WVG	World Vision Ghana
SIP	Strategic Investment Plan
W S D Bs	Water and Sanitation Development Boards
WATSANs	Water and Sanitation Committees

CHAPTER ONE

1.1 Background to the Study

The water supply and sanitation sector in Ghana faces severe problems, partly due to a neglect of the sector until the 1990s. Tariffs were kept at a low level which was far from reflecting the real cost of the service. Economic efficiency still remains below the regional average, resulting in a lack of financial resources to maintain and extend the infrastructure. Since 1994, the sector has been gradually modernized through the creation of an autonomous regulatory agency, introduction of private sector participation, and decentralization of the rural supply to 170 districts, where user participation is encouraged-(*http://www.wssinfo.org/pdf/country/GHA* February 2010)

To overcome the lack of coordination between the numerous institutions which were created since 1993, a National Water Policy was launched at the end of February 2008, which focuses on the three strategic areas:

(i) water resources management;

(ii) urban water supply; and

(iii) community water and sanitation (*http://www.wssinfo.org/pdf/country/GHA* February 2010*)*

According to a multi-donor review of Ghana's water supply sector, it is quite well structured, with the government in charge of policy and regulation, while the private sector and communities play important roles in service delivery. The institutional framework for sanitation is less clear, with responsibilities not being clearly defined. (*http://www.wateraid.org/other/startdownload.asp* February 2010)

The Ministry of Local Government and Rural Development share responsibility for formulating sanitation policies and coordinating funding for the sub-sector with the Ministry of Water Resources Works and Housing. The government promotes decentralization and as such sanitation policies are expected to be carried out by Metropolitan, Municipal, and District Assemblies (CWSA SIP 2008).

Responsibility for service provision at the rural areas is for the Community Water and Sanitation Agency (CWSA), which is in charge of coordinating and facilitating the implementation of the National Community Water and Sanitation Program (NCWSP) in rural areas, that is carried out directly by the communities and their District Assemblies. According to the CWSA SIP 2008, The NCWSP focuses on three main objectives in order to achieve health improvements (pg 27):

1. Safe water supply,
2. Hygiene education, and
3. Improved sanitation.

In the Upper West Region of Ghana, the World Bank has approved for the construction of a Small Town Water Project in Funsi and three other communities namely Kaleo in Nadowli District, Busa and Charia in the Wa Municipality. The projects in these communities were delayed because the communities could not afford their 5% community contribution in 2008. Their inability to pay the community is as a result of the extreme poverty situation in the communities.

According to the Wa East District Profile, apart from household pito brewing, shea butter extraction, charcoal burning and fuelwood selling, there is no industrial activity. Commerce rather involves traders from Wa who come and purchase the

farm produce and livestock at very low prices. The district is actually without any infrastructure. There is no telecommunication facility, not even cellular services, no banking services, no electricity and no all year round roads. All these factors seem to perpetuate the poverty of the people as they sell their farm produce cheaply to the traders who visit them at the farm gates (Wa East Distric Profile, 2005).

As a result of the poverty situation of the people of Funsi, unlike the other projects where the communities contributed 5% to the project cost, under this agreement, the World Bank and Government of Ghan took care of the total funding.

It is against this background that the research was conducted to find out the expectations of the people of Funsi about the STWS under the above mentioned circumstances. A field survey was conducted and the data collected was analysed and interpreted. Conclusions are drawn base on the outcome of the study and appropriate recommendations are made.

1.2 Problem statement

Similar water projects were in operation before the Small Town Project was approved for construction in the community and one needs to understand why it is so. There is still high inadequate potable water supply in Funsi and its environs, leading to an increase in water related diseases and conflicts. According to the Chairman of the Water Board “Conflicts are recorded daily between users especially women”. Annual reports of the Wa East District Health Directorate 2007 show that the number 4 topmost diseases in the district are water related disease.

The presence or absence of water can affect the economic activities of women and the learning of pupils considering the amount of time spent carrying heavy containers to

collect water, thereby preventing them from engaging in income generating activities or preventing them from going to school

The people are in desperate need of water to save them from diseases, and the trauma of struggling for water in long cues. Against the dire need for water is the fact that the people could not even pay for the 5% community contribution. To make matters worse the district capital where the project is taking place, is one of the most deprived districts in the country. It is yet to be connected to the national electricity network. What is the certainty that a STWS in a poverty endemic community that has no electricity and could not pay for its 5% mandatory contribution will succeed? It is uncertain if the STWS will be successful.

The uncertainty of the success and sustainability of the STWS in Funsi, is basically what the research is to enquire.

1.3 RESEARCH QUESTIONS

The study attempts to address the following questions:

a. What are the existing water projects in Funsi and why did they not work?

b. What has CWSA done under STWP in the past, what worked well and what did not work and why?

c. What do the people want to see in the current project, during and after construction?

d. What will be the contribution of the people and how will they take care of the project?

e. What are the socio cultural issues that can affect the project implementation?

1.4 GOAL AND OBJECTIVES OF THE STUDY

The overall goal of the research is to assess the expectations of the Small Town Water project in Funsi Specifically the objectives of the study include the following:

a. To identify existing water projects in Funsi and the reasons why they are not successful

b. To identify similar projects that CWSA has done in the past and note why they failed or succeeded

c. To identify what the beneficiary community, CWSA and others want to see in this project during and after the construction

d. To determine the contribution of the people and how they will take care of the Project

e. To examine the socio-cultural issues that can affect the success of the project.

f. To make recommendations on best management practices that can sustain the project, and suggestions to inform policy decision on rural water supply.

1.5 SCOPE OF THE RESEARCH

Geographically the research is conducted to cover Funsi which happens to be the district capital of the Wa East District in the Upper West Region of Ghana. Funsi is chosen because it poses unique characteristics as a newly created district. The research will also look at the Upper West Community Water and Sanitation Agency. The content will cover issues on Community Water and Sanitation, Small Town Water Projects and their implementation, sustainability of water projects and socio cultural issues.

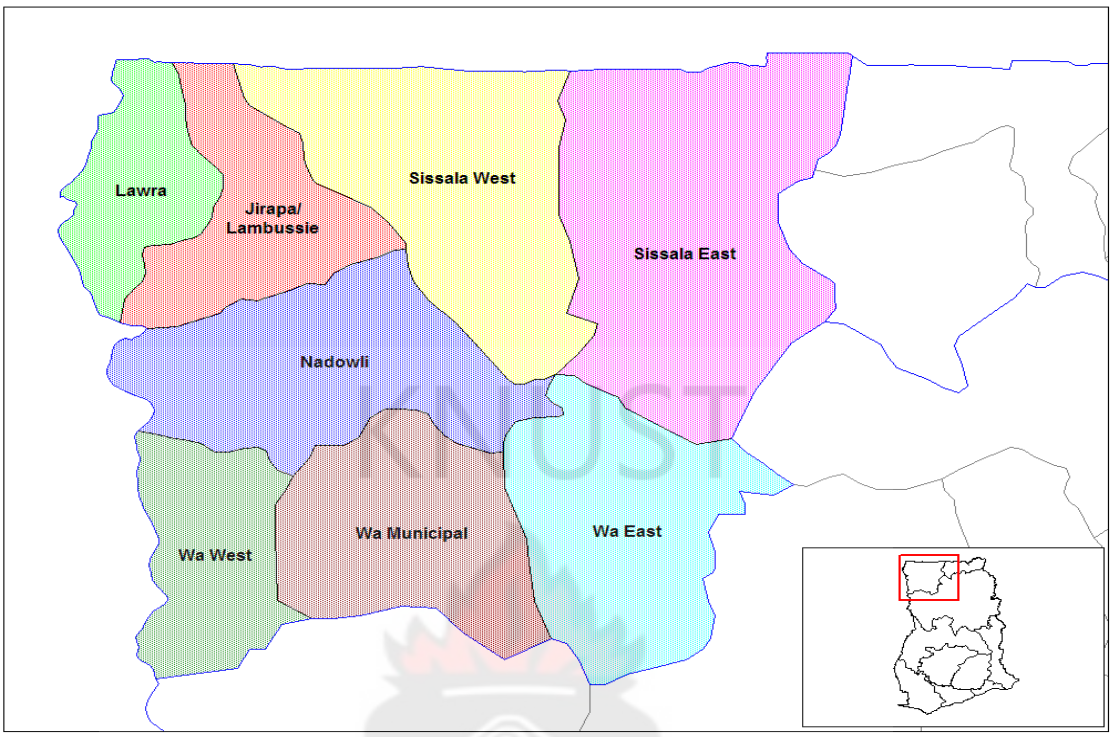
1.6 SIGNIFICANCE OF THE RESEARCH

The significance of the research cannot be overemphasized. It will enable the researcher to assess the expectations of the Small Town Water Project and make input into the success and sustainability of the project. It will provide useful ideas to better enhance community water provision in developing countries. The findings will be useful information for the World Bank, CWSA, the DA and other development organizations.

1. 7 About the Study Area

The study is conducted in Funsi in the Wa East District of the Upper West Region of Ghana. Funsi is the district capital about 115km from the regional capital Wa. The district shares boundaries with West Mamprusi (N/R) to North West, West Gonja (N/R) to the Southeast and the Sissala East District (UW/R) to the North. It has a surface area of about 1,078km2, which lies between latitudes 90°55'N and 10°25'N and longitude 1°10'W and 2°5' W. The population of the District for 2005 was estimated at 66,358 with an annual growth rate of 1.7% by the 2000 PHC. (Wa East District profile).

Map 1: DISTRICT MAP OF UPPER WEST REGION



SOURCE: http://mapsof.net/ghana/static-maps/png/un-ghana

http://mapsof.net/ghana

Funsi is the only district capital in Ghana without electricity, potable water supply, and telecommunication facility. It has a population of 4900 according to the 2000 population census. (Wa East District Profile 2006)

The district capital currenly depends on only 7 bore holes, 23 individually owned hand dug wells, and few dug outs along the stream.

Geology:The District consists of pre cambrian base rock, granite and metamorphic rock types Deposits of gold, iron, bauxite and clay abound in some parts of the district.

Soil: The soil is mainly sandy loamy which is very fertile for the cultivation of tubers, cereals, legumes and livestock.

Population: The population of the District for 2005 was estimated at 66,358 with an annual growth rate of 1.7% by the 2000 PHC

Spatial Analysis: The spatial distribution is very key to the distribution of development actvities and influence the cost of administering the District. The Human settlement is highly dispersed and is exceptionally rural. Forty percent of the population that is 25 settlements is concentrated at the northeastern part of the district occupying about 10% of the landmass of the district. Houses are scaltered in compounds with average houshold size of 8 persons. Each compound consists of a number of family units who are related by blood or decent. Houses are normally built of mud bricks and roofed with mud or dried leaves.

District Economy: The district economy is basically agrarian it consists of cutlass and hoe farming, and picking and gathering of wild shea fruit and dawadawa. The major crops cultivated include millet, maize and cowpea. Other crops are groundnut, banbara beans and rice, soya beans cotton, sheabutter and mangoes are cultivated mainly for sale. There is the potential to cultivate these crops on large scale that could lead to processing in the future. What is needed is the introduction of a system of production that will not reduce the people to farm and industrail labourers but participate in the process as joint owners.

Presently about 67% of the farmers rely an animal drawn implements while 33% use the labour infensive methods of hoe and cutlass. The animal drawn method seems to be ideal because of the thin surface soil. An improved mechanical method should take this characteristic of the soil into account. The gradual introduction of the deep mechanical ploughing would result in the degeration of the land.

Commerce/ Industry: This is of very little significance in the district. Apart from household pito brewing shea butter extraction, charcoal burning fuel wood selling, there is no industrial activity. Commerce rather involves traders from Wa who come and purchase the farm produce and livestock. This is another potential which local people could be assisted to develop.

Economic Infrastructure: The district is actually without any infrastructure. There are no telecommunication facilities, not even cellular services, no banking services, no electricity and no all year round roads. The only 3rd class road that goes through the district from Wa to the district capital, Funsi, is disrupted during the rainy season by two streams. Apart from this many of the feeder roads are seasonal.

To top all this is the absence of electricity in the district. Efforts are being made by the Assembly to bring light into the district by the provision of low tension poles in Bulenga and Funsi. All these factors seem to perpetuate the poverty of the people as they sell their farm produce to the traders who visit them at the farm gates cheaply.They also find it difficult to access health facilities for lack of transport

CHAPTER TWO

2.1. RESEARCH METHODOLOGY

In a scientific study, the appropriateness of a research methodology in relation to the validity of findings and conclusions cannot be overemphasized. In respect to this fact the researcher employed both qualitative and quantitative research design processes in carrying out the investigations. Qualitative methodology is dominant because of the nature of the research topic. Thus measuring experiences of people has a lot of ethical issues and could best be studied using qualitative techniques. Furthermore the researcher sought to understand, explain and interpret the findings from the perspective of the respondents. However, quantitative techniques such as excel was used to analyze and present the quantitative data.

2.7: 1a Data collection

Data collection Method must be ethically-appropriate: thus it must be 'informant consent', right to withdraw, sensitive to respondents rights, ensure fair representation, ensure confidentiality, anonymity and supportive.

Good data collection method must allow for collection of complex, rich data. To enable the researcher to collect such a rich data, semi-structured interview guides were developed and used. The researcher engaged in focus groups discussions with key stake holders and reviewed written reports for secondary information. Participant and non-participant observation which are relevant qualitative data collection methods were employed.

Sampling must be theoretically-consistent with qualitative paradigm, purposive, representative of issue, rather than population, ideographic, rather than nomothetic.

The services of three (3) research assistants were employed. The research assistants were recruited and trained on professional, effective and efficient ways of administering questionnaires.

2.7:1b Data Gathering Instruments

The research made use of both primary and secondary data sources. The secondary sources included: statistics on existing water resources, performance reports of CWSA, demographic data of the study area, reports of the Water Boards, reports of the Sanitation and Water sub committees of the District Assembly, the DA's Annual Action Plan, the district and regional Water profiles, among others. The primary source of data was obtained from interviewing respondents, observations, information from focus group discussions, and key informants. Interview guides, structural questionnaire, were designed to guide the interview process. Photographs of relevant sites were to add to the quality of the presentation.

2.7:2 Sampling and Sampling Procedure

Due to the nature of the research; involving opinions and perceptions, coupled with time and resource constraints, the researcher used purposive sampling technique to select the sample size; 80 questionnaires were administered to 50 women, 30 men, out of which 20% were SHS pupils. Compared to men, women are most affected regarding issues related to water. For that matter, it was only appropriate that more of their views were taken. "Women and men generally have very different roles in water supply and sanitation (WSS) activities. These differences are particularly evident in rural areas. Often women are the main users, providers, and managers of water in rural households"- (Gender and Development Group World Bank 2007) pg 2. (http://www.worldbank.org/gender)

The researcher also engaged in focus group discussions with the stakeholders including: District Water Board, the Contractor, the District Engineer, Community Water and Sanitation Agency, the District Water and Sanitation Team and the District Assembly.

The above mentioned category of people and agencies provided adequate information to the research. Hence the units of analysis are women, men and SHS students. The researcher used simple random sampling to select the individual respondents. The numbers of all houses in Funsi were collected and put in a box. They were mixed thoroughly and then 50 of the number were picked at random. After the houses were picked, the head of the women in each selected house were interviewed. The same exercise was carried out to pick the men. For the students, all the names of JHS students who resisted with the district National Youth Employment Programme (NYEP) were put in a bowl, mixed thoroughly and selected at random by a the research assistants.

2.7: 3 Analytical Tools

A research process is both more creative and more interactive at all stages for qualitative researchers. As codes are accumulated, the researcher will begin to sort them into themes. This represents a movement from the particular (line-by-line codes) to the general (patterns within those codes). Similarly, the accounts of these themes which emerge represent a movement from the descriptive (e.g. summarising what the interview respondent says, or does, in a series of codes) to the interpretative (making some attempt to identify what it all *means*).

Thus the information collected were coded and sorted into themes (thematic analysis) the analysis and discussions was generally base on the thematic areas. To enhance visual appreciation of data collected, descriptive statistical tools such as percentages, bar graphs, cross tabulation were used to present data collected in summarized charts and graphical forms where necessary. The researcher then used interpretive, discursive, narrative and conversational analytical methods in ascribing meaning to dada collected.

2.7:4 Organization of the study

The report of the study is captured in six separate chapters. Each chapter is subdivided into subtitles or subchapters. Chapter 1 include the background to the study, problem statement, research questions, goal and objectives of the study, the scope of the research, and the significance of the research whilst chapter two (2) is devoted to the research methodology.

Chapter three (3) covers literature review; capturing the historical perspectives of water supply, the water challenges in Ghana, the National Water policy, CWSA, SMTWS, their challenges and achievements, sustainability of water projects and future perspectives on water delivery in Ghana. Chapter four (4) includes the presentation of data gotten from the field survey.

The data captured is synchronized and presented under major heading including: the socio demographic characteristics of respondents, sources of water supply in Funsi, STWS in Upper West Region, the capacity, management and sustainability of STWS, the expectations of the STWS in Funsi, the challenges, the uniqueness of the Funsi

water project and the advantages that it has, socio cultural issues and their implication on the success of the project, conflicts and the extent to which the water project influenced relationships in Funsi.The 5th chapter is devoted to analysis and interpretation of the data. The 6th and final chapter covers the research findings, recommendations, summary and conclusions.

Thus the entire research preocess took the following steps: Selecting the research topic, Research design, Formulating research objectives, Literature review, Design and trial of questionaire, Recruiting and training 3 research assistance, Field work / collection of data at Funsi, Analysis and interpretation, Finding recommendation and conclutions and Report writing.

CHAPTER THREE

LITERATURE REVIEW

3.0 INTRODUCTION

This chapter looks at the water sector in Ghana, Community Water and Sanitation Agency (CWSA), Community water supply; Small Town Water Systems in Ghana and other developing countries, the challenges and successes of Small Town water Projects in Ghana. It further examines the management and sustenance of water facilities in Ghana's rural communities. It also covers Gender issues, the future perspectives of water supply, and community contribution to the success of STWS.

3.1 HISTORICAL PERSPECTIVES OF WATER SUPPLY NEEDS

The issue of water supply is a global one and has been captured in the UN Millennium Development Goals (MDGs). Water, sanitation and hygiene are vital components of sustainable development and the alleviation of poverty. Across Africa, political leaders and sector specialists are generating new momentum in these important areas for Africa. (Marc 2002)

The need for adequate supply of potable water as an essential commodity in life has been the concern of the human race since time immemorial. In fact water is a basic need of life, the absence of it has several implications including: health, educational, economic, socio-cultural, political and developmental. The lack of clean drinking water and sanitation systems is a severe public health concern in Ghana, contributing to 70% of diseases in the country (UNICEF, 2006).

Various initiatives at conferences have over the years led to the advancement of policy issues on water. For example, there was the Dublin Conference, at which the Dublin Principles were developed and these include:

- Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.
- Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.
- Women play a central part in the provision, management and safeguarding of water.
- Water has an economic value in all its competing uses and should be recognized as an economic good.

Another conference was the Earth Summit held in 1992 where the Agenda 21 detailed a number of principles including the need to:

- Ensure the integrated management and development of water resources;
- Assess water quality, supply and demand;
- Protect water resource quality and aquatic eco-systems;
- Improve drinking water supply and sanitation;
- Ensure sustainable water supply and use for cities;
- Manage water resources for sustainable food production and development;
- Assess the impact of climate change on water resources.

To a large extent, these principles as well as others play a central role in water policy formulation worldwide, including Ghana. E.g. the goal of the Government through the

Community Water and Sanitation Agency (CWSA) is to attain national water coverage of 85% by 2015 (ATPS, 2007) pg 1.

Over the past decade, human access to quality drinking water has been gradually decreasing. For some people, water crisis means having to walk long distances every day to fetch enough drinking water - clean or unclean - just to get by. For others, it means suffering from malnutrition or disease caused by droughts, floods or inadequate sanitation. Many people suffer these hardships due to lack of funds or inadequate knowledge of how to solve local water use and allocation problems. (*www.wateraid.org/nepal* December 2008)

To make matters worse, population increase has complicated the increasing demand for water. In recent times various governments including the United Nations have come out with various strategies and interventions to address the increasing demand for adequate water supply. For instance the UN Millennium Development Goals. Using the 2006 Ghana national Water coverage rate, the new target for rural water supply to meet the modified Millennium Development Goal (MDG) of halving the un-served population by 2015 is 76 percent. (Strategic Investment Plan 2008-2015 CWSA November 2008 pg 2)

The provision of water and sanitation facilities especially to the deprived rural and peri-urban poor is very crucial to the achievement of the Millennium Development Goals (MDGs) and the targets set in the government development agenda. (NCWSP and CWSA Annual Conference, 2008) "In order to achieve the MDGs and meet the increasing demand for these facilities in our fast growing rural communities, there is

the compelling need for CWSA to retool and reposition itself for effective corporate performance and accelerated delivery" (A Communiqué CWSA, 2008)pg 2.

Notably, the second Millennium Development Goal (MDG) is to achieve universal primary education. The target is to ensure that all boys and girls complete primary education by the year 2015. The MDGs are strongly inter-dependent and program interventions must reflect this. Water, Sanitation and hygiene deliver outcomes across the MDGs. (TREND, 2006) pg 1 (http://www.lboro.ac.uk/well year)

3.2 WATER CHALLENGE IN GHANA

As has already been said, in Ghana, the challenge of adequate potable water supply to the people is of concern to government, individuals and the general public even before independence. A brief look at the summary of historical trends of various attempts made to improve adequate supply of water could be useful here.

Table 3.1: interventions in the water sector over the years

YEAR	INTERVENION
1928	First development of public water supply systems, operated by the Hydraulic Division of the Public Works Department
1965	Ghana Water and Sewerage Corporation (GWSC) established to be responsible for urban and rural water supply
1986	Removal of operational subsidy on water supply
1991	GWSC efficiency increased by cutting 1400 jobs and recruiting more qualified personnel
1994	The operation of Rural and Small Town Water supplies moved from GWSC to be community managed. Semi-autonomous Community Water and Sanitation Division established to be responsible for facilitating the community water supply management
1995	Stakeholder meeting selects the 'lease option' for restructuring the urban water sector
1996	Water Resources Commission established
1997	Public Utility Regulatory Commission established
1999	GWSC replaced with the publicly owned Ghana Water Company Ltd (GWCL) in urban areas and the Community Water and Sanitation Agency (CWSA) in rural areas. Responsibility for urban sanitation transferred to ministries of local Government
2003	Modification of water sector restructuring project so that management contract option is also available to urban water project
2004	Preparation of a National Water Policy

(Source: Water Aid, National Water Sector Assessment, May 2005)

It was out of the difficulties that government faced in attempts to supply potable water to the people of Ghana that led to the idea of privatizing the water sector in 2004. This however was met with fierce resistance and opposition by a good section of the Ghanaian public in 2004.

In reference to the corporate brochure of the NWSP and the CWSA the Water supply and Sanitation sector in Ghana faces severe problems, partly due to a neglect of the sector until the 1990s. Tariffs were kept at a low level which was far from reflecting the real cost of the service. Economic efficiency still remains below the regional average, resulting in a lack of financial resources to maintain and extend the infrastructure. Since 1994, the sector has been gradually modernized through the creation of an autonomous regulatory agency, introduction of private sector participation, and decentralization of the rural supply to 170 districts, where user participation is encouraged-(CWSA 2006.)

To overcome the lack of coordination between the numerous institutions which were created since 1993, a National Water Policy (NWP) was launched at the end of February 2008, which focuses on the three strategic areas:

(iv) water resources management;

(v) urban water supply; and

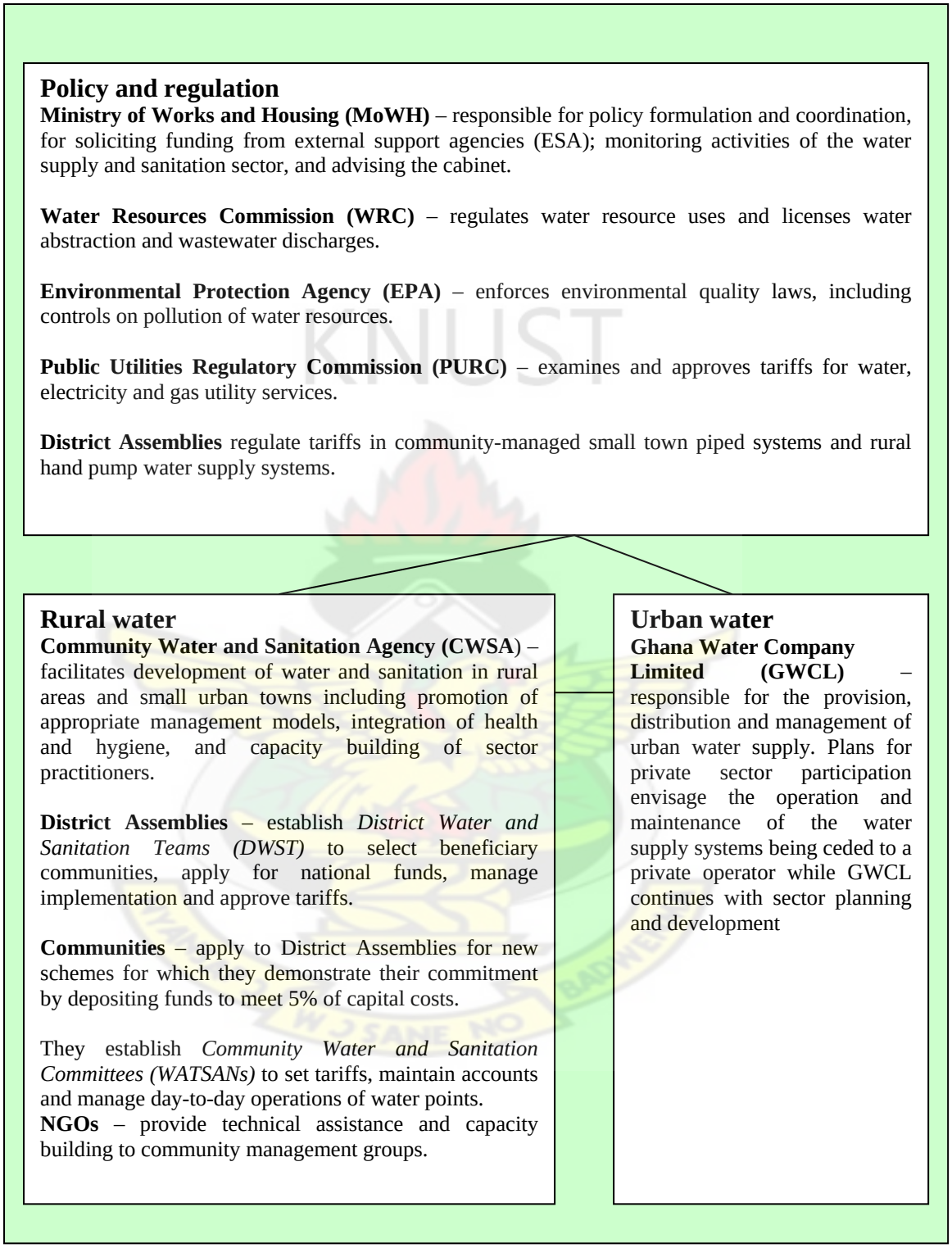
(vi) community water and sanitation

3.3 STRUCTURE OF GHANA'S WATER SECTOR

According to a multi-donor review of Ghana's water supply sector, it is quite well structured with the government in charge of policy and regulation while the private

sector and communities play important roles in service delivery. The Ministry of Local Government and Rural Development share responsibility for setting sanitation policies and coordinating funding for the sub-sector with the Ministry of Water Resources Works and Housing (MWRWH). The government promotes decentralization so that sanitation policies are expected to be carried out by Metropolitan, Municipal, and District Assemblies. Diagram 2 show gives a detail the existing institutional framework of the water sector in Ghana. (Water and Sanitation Sector Directory, 2009) pg 11

Diagram 2: Water sector: Existing institutional framework



(SOURCE: WaterAid 2005 Country Programmes Assessing National Water Sector in Ghana)

3.3: 1 Community Water and Sanitation

The Government of Ghana in 1994 launched the National Community Water and Sanitation Program for accelerated, equitable and sustainable delivery of potable water and sanitation facilities to rural communities and small towns. The Program focuses on decentralization of services under District Assemblies. It also operates under the Demand Responsive Approach (DRA) where service is provided in response to demand for such services that communities are willing to pay for.

A basic understanding of the DRA is that a stronger sense of ownership is displayed when communities apply for services themselves instead of just supplying them without their involvement and resource commitment. Another key component is that the communities are in charge of the operation and maintenance to sustain the project.

Many community water and sanitation service providers especially NGOs adopt various sustainability approaches through the formation and training of community based institutions to manage water facilities.

Other sustainability approaches include strengthening community capacity to manage services by assisting communities in planning, implementing and administering services, forming and training Water and Sanitation Development Boards (W S D Bs) and Water and Sanitation Committees (WATSANs) and training community members in better hygiene practice, developing district-level capacity to deliver CWS services, encouraging an active role by the private sector and Non-Governmental Organizations (NGOs) in delivering goods and services and assisting District Assemblies (DAs) in planning and providing community support in service planning, implementation and management; and strengthening CWSA's capacity to assume the facilitator role by

implementing a management fee- payment scheme and supporting the national CWS program.

The project has also contributed to furthering the goals of the National Community Water and Sanitation Program (NCWSP) which seeks to increase sustainable access to CWS services and the Ghana Poverty Reduction Strategy (GPRS), which identifies accelerated access to water and sanitation as a priority. Hence, the objectives are entirely relevant and responsive to the sector objectives of increasing sustainable access to water and sanitation (Second Community Water and Sanitation Project June, 2005)

3.3:3 the Policy Framework for Community Water and Sanitation

According to Roseemma, G. et al (2007) in their 'Assessment of Community Water and Sanitation in Ghana', the National Community Water and Sanitation Program (NCWSP) was launched in 1992 to address the challenge of providing water to rural communities and small towns in Ghana.

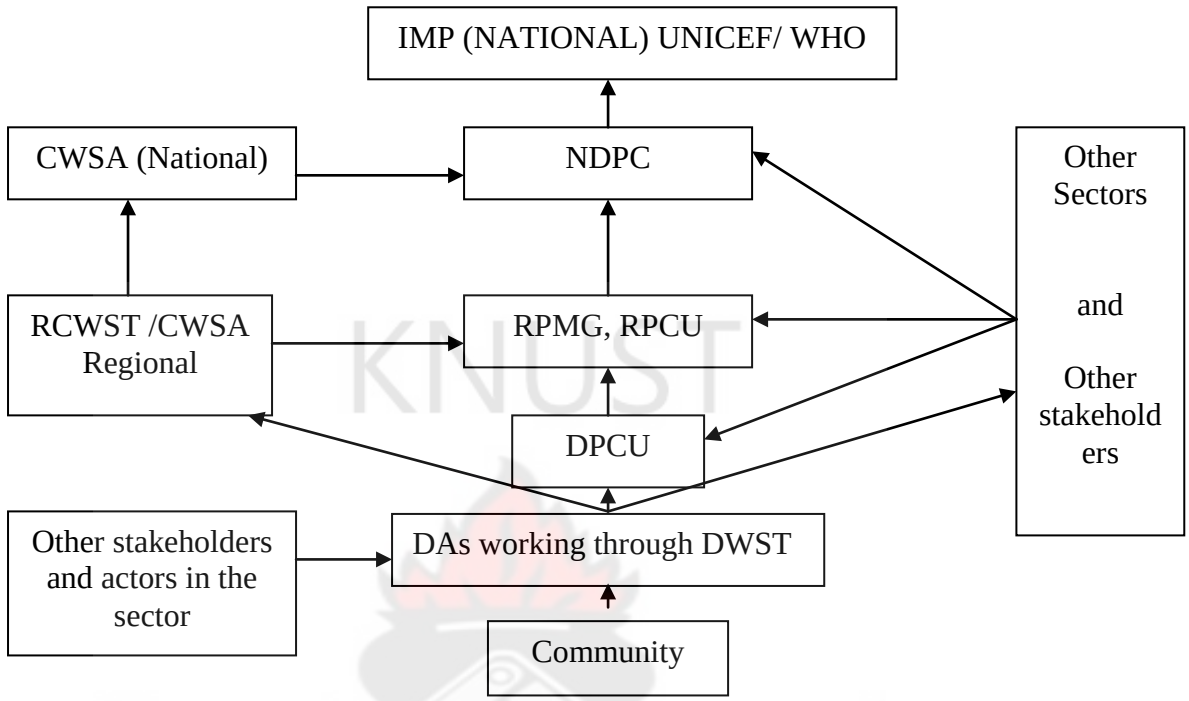
To ensure the implementation of the program, the Community Water and Sanitation Agency (CWSA) was established under the Parliamentary Act 564. The Community Water and Sanitation Agency Act, 1998, came into force on 30th December 1998. The Act established the Agency to "facilitate the provisions of safe water and related sanitation services to rural communities and to provide for connected purposes" (Assessment of Community Water and Sanitation in Ghana, 2007 pg 4).

The Community Water and Sanitation Agency Act, Act 564 specifies the functions of the CWSA among others, as follows:

- Provide support to District Assemblies to – promote the sustainability of safe water supply and related sanitation services in rural communities and small towns; and enable the Assemblies to encourage the active involvement of the communities, especially women, in the design, planning, construction and community management of projects related to safe water supply and related sanitation services.
- formulate strategies for the effective mobilization of resources for the execution of safe water development and related sanitation programmes in rural communities and small towns;
- encourage private sector participation in the provision of safe water supply and related sanitation services in rural communities and small towns;
- provide District Assemblies with technical assistance in the planning and execution of water development and sanitation of water development and sanitation projects in the districts Act 564, 2 sub-section (2).

The Chief Executive of CWSA attends to the day to day operations of the Agency, which has the national head office in Accra and regional offices in the 10 administrative regions. At the district level, it operates through the District Assembly (DA). The President of the Republic of Ghana appoints a Management Board with representation from the relevant key institutions to oversee the performance of the functions and formulation of institutional policies. In the diagram below, you can see the structure for reporting on CWSP under the MDGs

Diagram 1. CWSP: National Development Planning Commission (NDPC) Structure and Framework for reporting on MDGs



(Source: Bernard A. and Eugene L., 2006: Monitoring of Water Supply Coverage)

3.4 NATIONAL WATER POLICY

The new national water policy was launched in October 2005. The National Water Policy of Ghana aims at providing a framework for the sustainable development and utilization of Ghana's water resources. It is targeted at all water users, water managers and practitioners, investors, decision-makers and policy makers within the central and decentralized government structures such as the district assemblies, non-governmental organizations and international agencies. The policy outlines the various cross-sectoral issues related to water-use and the links to other sectoral policies such as relating to sanitation, agriculture, transport and energy (Roseemma G. et al (2007) pg 5.

Ghana's Water Vision for 2025 is to "promote an efficient and effective management system and environmentally sound development of all water resources in Ghana" (Ministry of Works and Housing, 2005).

Three important development frameworks inform Ghana's water policy namely:

- The global - Millennium Development Goals (Ministry of Works and Housing, 2003)
- The African region - New Partnership for African Development (NEPAD, 2001)
- The national – Ghana Poverty Reduction Strategy (GPRS I) and Growth and Poverty Reduction Strategy (GPRS II)

The Ghana Poverty Reduction Strategy (2003 – 2005), which was later revised stated inter-alia that "increasing access to potable water…is key to achieving health outcomes and sustained poverty reduction." The GPRS envisages improving provision of water to rural, peri-urban and unserved poor urban areas. A Strategic Environmental Assessment (SEA) conducted on the GPRS showed that water, as a cross-cutting thematic issue is highly relevant to promoting livelihood, health and vulnerability issues in Ghana.

Though the GPRS I was reviewed and replaced by the Growth and Poverty Reduction Strategy (GPRS II 2006-2009), the goals articulated in GPRS I generally remain central to Ghana's development strategies.

3.5 SMALL TOWNS IN GHANA: UNDER GHANA'S DECENTRALIZATION PROGRAM

Using Ghana's official urban definition, towns are categorized into three: small towns, medium-sized/intermediate towns, and large towns/cities. Adding rural settlements, Ghana's settlement hierarchy can be placed within a four-tier system. At the top of Ghana's urban hierarchy are the large towns/cities of Accra, Kumasi, Tema and Sekondi-Takoradi, Tamale, and Sunyani with populations of 250,000 or more. This is followed by the intermediate (medium-sized) towns with populations of 50,000 to 250,000, typified by the regional capitals.

According to the CWSA 2009, Small towns are Settlements with Population from 2001 to 50,000 and above. Target Beneficiaries in this category are small or rural communities with population of 75 up to 1,200 in category one and population from 1,200 to 2,000 under category two.

3.6 MAJOR FACTORS AFFECTING IMPLEMENTATION AND OUTCOME OF CWSA PROJECTS

According to a World Bank document on "Implementation Completion Report (IDA-32820 PPFI-Q1160) 2005 the factors that affect the implementation of CWSA projects are categorised to major areas: thus

3.6: 1 Factors outside the control of government or implementing agency

Factors outside the control of the Government and CWSA included: (i) unfavourable hydro geological conditions in some districts, affecting siting/drilling success rates, and the issue of natural fluoride contamination of groundwater in parts of the Upper East Region; (ii) delays in mobilizing the 5% capital contributions in small towns; and

(iii) capacity of local private sector to provide adequate numbers of drilling rigs to complete drilling in a timely fashion.

3.6: 2 Factors generally subject to government control

Factors subject to government control are: ensuring timely availability of the 5% DA financial contribution to capital costs; inadequate number of staff at DA level to match significantly increased work programme; the transfer of DA staff trained under the project, which adversely impact the effectiveness of training and follow-up in the project; and limited incentives for private sector to invest in spare parts, which is a concern for sustainability.

3.6:3 Factors generally subject to implementing agency control

Factors subject to implementing agency control are: the irregularity in submission of Statements of Expenditures (SoEs) by the DAs; the limited proactiveness in addressing dry, low yielding and fluoride-contaminated wells; the irregular annual updates of the District Water Sanitation Plans (DWSPs); and poor use of the contract award monitoring database to properly coordinate and advice on decisions regarding multiple awards to contractors and consultants operating across different geographical regions when capacity was an issue.

3.7 PROCEDURE FOR SELECTING BENEFICIARY COMMUNITIES

As captured in the brochure of CWSA and NCWSP, when a donor announces an intention to enter a particular region to provide a number and type(s) of water and sanitation facilities, the following activities are carried through to select beneficiary communities:

1. The programmme is launched in the region and all the processes and procedures are explained especially, the demand-responsive-approach concept to potential beneficiaries. These include:

- Community readiness to contribute to the investment of the water facility which is also an indication of their ability to operate and maintain the facility after delivery and,
- Community readiness to operate and manage the facilities after handing over
- The target audience here will include the regional political heads, stakeholders, district political heads, opinion leaders, donours and CWSA staff etc

2. Following this, the programme is also launched in the district by the District Assembly (DA) and again all the processes and procedures are explained especially on the demand responsiveness of potential beneficiaries, community contribution and Ownership and Management.

3. Thereafter, the communities meet and discuss their interest in the facility. They will then apply to the District Assembly for a facility of their choice and show evidence of responsiveness (ability to pay 5% capital contribution, maintain and manage) by making a deposit of their counterpart contribution into an account in the bank.

4. The DAs will evaluate the applications and assess the communities through the preparation of a community profile to ensure their ability to contribute, maintain, operate and manage the facilities.

5. The DAs then shortlist the communities to benefit annually using an established general criteria agreed upon by all parties such as evidence of a deposit of an agreed

amount in a bank, population size, existing facilities, current community economic activities, existing community initiated development projects, absence of conflicts such as land, chieftaincy and ethnic disputes, etc.

6. After this, the District Assembly will conduct feasibility studies in short- listed communities to establish sources of water, cost of the various services: pipe system, point source etc.

7. The DAs will then make the final selection of communities after a general meeting in the communities during which all community members are present. The final selection is based on the following:

- chose a service based on willingness to pay and acceptance of responsibility to manage, operate and maintain the system,
- show effective demand in terms of willingness to contribute to capital cost backed by evidence of financial strength (bank statement)
- payment of half (2.5%) of capital cost contribution before drilling
- commitment to make land available and transfer ownership to community

8. After the above, the communities are animated and sensitized on all possible ways of generating income to support and maintain the facility.

9. Water and Sanitation Development Boards (WSDB) and WATSAN Committees are formed and trained to operate and manage Small Towns Systems and Point Sources (boreholes) respectively. (Source: brochure CWSA and NCWSP)

3.8 CWSA ON-GOING PROJECTS AND COST

There is a high sense of good will in the donour community towards and the national approach for the rural water sub-sector. The political dispensation in the country's development programme as captured in the Growth and Poverty Reduction Strategy (GPRS11) 2006-2009 lays emphasis on the provision of potable water to contribute the alleviation of rural poverty (CWSA 2008).

As at 2008 a number of on-going projects by the Government of Ghana and External Supporting Agencies in the Community Water and Sanitation sub-sector were as the follows:

Table 4.1: On going projects as at 2008

INTERVENTION AGENCY	AMOUNT INVOLVED	TYPE OF SUPPORT	PROJECT LOCATION	DURATION
CIDA	Cdn$16,768 million	700 Water points, 7000 house hold sanitation facilities	7 district Eastern Corridor N/R	2002-2006
EU	Euro 14.5 million	500 water points and 2000 sanitation facilities	East and West Gonja, West Mamprusi in the N/R	2002-2007.
EU	Euro 24.99 million	Towns Piped Water Systems and sanitation facilities	Western and Central regions	2007-2009
AFD water supply and sanitation project	Euro 9 million	235 point sources, 7 Piped Schemes, 2000 household and 72 institutional latrines	Western corridor in the Northern region	2002-2006
IDA Small Towns Water and Sanitation	US$26 million.	pipe water supply and hygiene promotion for 500,000 people	Upper East, Upper West, Brong-Ahafo, Ashanti, Western and	2004-2009

			Central regions	
KFW RWSP4	Euro 10.2 million	drilling 1000 boreholes and 2000 latrines in the Ashanti region		2004-2008.
DANIDA	DKK 271.7 million	water and Sanitation Sector Program Support Phase ll (WSSPS ll) of 1,255 Point Sources, 20 Piped Schemes and 20,000 latrines at	Eastern, Volta, Central and Greater Accra regions	2004-2009.
DANIDA/DFID/GoG	$9 million	3-Districts Water Supply Scheme	108 communities in the Dangme East, Dangme West in the Greater Accra region and North Tongue in the Volta region	2004-2008
ADB support	US$ 19.7 million	806 water points and 2 piped schemes	5 districts in the Ashanti region	2004-2008
GoG Releases	36 billion)	Guinea Worm Eradication	Northern, Brong -Ahafo, Upper-West, Upper East and Volta regions	2002-2005

(Source: Water-Aid National Water Sector Assessment 2005. www.wateraid.org)

3.9 GENDER ROLES IN WATER SUPPLY AND SANITATION

Women and men generally have very different roles in water supply and sanitation (WSS) activities. These differences are particularly evident in rural areas. Often women are the main users, providers, and managers of water in rural households. Women are also the guardians of household hygiene. Men are usually more concerned

with water for irrigation or for livestock. Hence women tend to benefit most when access to water, and the quality and quantity of water improves (World Bank 2007).

According to a report issued by the Gender and Development Group of the World Bank 2007, Improvements in Water and Sanitation Services (WSS) infrastructure are likely to shorten women's and girls' time spent carrying heavy containers to collect water, thereby freeing up their time for income generating activities and school attendance, respectively. According to that report, given their long established, active role in WSS, women generally know about current water sources, their quality and reliability, any restrictions to their use, and how to improve hygiene behaviors. Yet for many years, efforts to improve WSS services had a tendency to overlook women's central role in water and sanitation. While women were often more direct users of water – especially in the household – men traditionally had a greater role than women in public decision making (http://www.worldbank.org/gender) 2007.

In Ghana, traditionally, women and children are the primary collectors, users, and managers of household water. When water systems break down women and children are the most affected, since they have to travel far to search for water for household use. Women are the key players in implementing changes in hygiene behaviours; however, despite the knowledge and experience that they bring to water resource management, the contribution and roles of rural women are often overlooked or under-utilized in the drafting of water and sanitation policies. (GIRWP, 2006)

In a study conducted by World Vision International at Samari Nkwanta in the Ashanti region of Ghana, the main obstacles encounted had to do with traditional gender roles. The male dominance prevalent in some Moslem communities in Ghana was especially apparent in Samari-Nkwanta. The women assumed that they should not

seek new roles as water facility managers and discouraged other women from engaging in what was perceived as a male role (WVG 2005).

However, World Vision Ghana (WVG's) decision to consciously involve both women and men in drilling led community members to re-evaluate their existing gender roles. This was reinforced by the WVG ensuring that women and men were represented equally on the WATSAN committee. The women were given equal access to training in water systems operations and maintenance and environmental sanitation methods (Sam, 2006)

3.10 CHALLENGES IN THE IMPLEMENTATION OF NCWSP

According to a report 2006 by **NCWSP** there have been a number of general challenges in the implementation of the program. In that report the challenges were captured in categories:

3.10:1 Government Administrative Budget Support

Government support to the sub-sector in terms of budget for running cost of the Agency has been quite low over the years. For instance, in the 2004 fiscal year, government budgetary allocation was 12.5 billion out of 18 billion requested. In 2005, 5.7 billion was approved out of 13.6 billion while only 4.7 billion was approved out of 11.0 billion requested for 2006 fiscal year. This does not auger well for the smooth operations of the Agency, and needs to be addressed.

3.10:2 District level Implementation Bottlenecks

In the assessment of the agency and other stakeholders, District Assembly (DA) support for the NCWSP leaves much to be desired. The DAs in many instances are not able to provide the needed logistic and financial support to District Water and

Sanitation Teams (DWSTs). In cases where the DAs are expected to pay 5% as capital cost contribution towards the provision of the facility (ies), some of them are unable to do so.

3.10:3 Public Procurement Act

The Public Procurement Act (Act 663) has been adopted as a working instrument within the Public Sector. The various Ministries, Departments and Agencies (MDAs) are now learning the new procurement procedures. This affects the rate at which they do business with the Agency thus leading to delays and hold ups in project execution especially at the District Assembly level.

3.10:4 Water quality

There are a number of water quality issues plaguing the water delivery process. These include high iron, Fluoride and arsenic contents. A good number of drilled wells for instance have been capped especially in the Northern parts of the country due to high levels of fluoride found in these wells.

3.10:5 Difficult Hydro Geological Conditions

The success rate of drilling is less than 40% in quite a number of areas across the country, especially in the Volta basin. This affects the delivery rate and the number of successful wells drilled particularly in the northern parts of the country. In some places along the coast, there are areas of high salinity of the groundwater, especially where the water table is close to the sea bad.

3.10:6 Non-Conformity of Some NGOs to the National Strategy

Some Non-Governmental Organizations in the sector do not conform to the standards and guidelines set by the agency for the delivery of water sanitation facilities. It is difficult to monitor them because they are ubiquitous and remotely located. Close collaboration and support from the respective District Assemblies are required to mitigate this constraint.

3.10:7 Community Contributions

It has been very difficult for some of the communities, particularly the small towns, to raise their 5% contributions to capital cost of the facilities in previous years. This is because of the large capital outlay associated with the construction of small town water systems.

3.10:8 Private Sector

There exist an inadequate number of experienced private sector firms in the water and sanitation sector. In addition, the already established firms have limited capacity to cope with the ever-increasing demands from sector stakeholders and beneficiaries. These two together, militate against the delivery of facilities.

3.11 FUTURE PERSPECTIVES OF THE NCWSP & CWSA

CWSA aims at increasing the coverage of water and sanitation to 85% by 2015 in line with the GPRS II and the Agency's revised Strategic Investment Plan (SIP).

3.11:1 the Strategic Investment Plans (SIP)-Medium and Long Term

The investments need of the Community Water and Sanitation Agency have been well articulated over the years in a series of Strategic investments Plans (SIP). These investment plans present the financing requirements for achieving projected population coverage of the National Community Water and Sanitation Program (NCWSP) over a certain period of time. The main purpose of the various SIPs is to determine the magnitude of investments required to provide safe drinking water and improved sanitation to rural communities and small towns.

They basically out lined the annual objectives, outputs, activities and inputs to attain the target coverage of safe drinking water and improved sanitation facilities perceived at the time. The documents also incorporated strategies for mobilizing the resources needed to finance the national programme. In order to maintain their relevance, the SIPs are regularly revised or updated in order to match the changing needs and targets of the sub-sector, and to mobilize the requisite resources to meet the set targets (SIP, 2005).

The first SIP was developed in 1993 for the implementation period between 1994 and 2004 with an estimated cost of US$215 million aimed for coverage of 80% of water and sanitation. This was reviewed and a second SIP developed in 1998 for implementation during 1999 and 2008. The aim of the 1998 SIP was to increase coverage of rural water to 83% by 2008 (SIP 2008-2015).

The total cost of interventions was estimated at US$ 415.8. A mid-term review of this SIP was scheduled for 2003 but the adoption of the Millennium Development Goals (MDGs) and the elaboration of the Ghana Poverty Reduction Strategy document gave to the need to reassess national targets and launch a more ambitious development

framework for the sub-sector. This gave rise to the elaboration of the 2005 to 2015 Strategic Investment Plan (SIP 2008-2015).

The current Plan targeted 85% coverage by the end of services in 2015, and required up to US$756 million as investment over an eleven-year period to achieve this goal. Details of the number of facilities required and the cost implication for the first 5 year period are given in the tables below.

Table 3.2: MTP Facilities requirement for the GPRS II coverage

Facility type	Facility	2008	2009	2010	2011	2012	Total
Water	Bore holes	531	593	1022	923	819	**3888**
Water	Hand dug Wells	76	94	186	124	134	**614**
Water	Rural pipe systems	65	64	65	58	57	**309**
Water	Small town pipe systems	6	19	15	21	17	**78**
Software	Water and sanitation committee	865	1038	1246	1495	1794	**6438**
Software	District water and sanitation teems	8	9	11	14	16	**58**
Software	Technical Assistants	16	19	23	27	33	**118**
Software	Small town Consultancies services	8	9	11	14	16	**58**

(SOURCE: SIP 2008)

3.12 PROMOTING THE AGENDA OF CWSA

To promote its agenda, the Community Water and Sanitation Agency (CWSA) organises annual conferences with its key stakeholders to assess the performance of the agency towards achieving the objectives and goals of its mandate. The Review is also used to set new targets and to strategize towards improved performance to achieve the set targets.

In one of such conferences in 2009 held under the theme, "Facilitation of the National Community Water and Sanitation Program (NCWSP): Emerging Challenges and the Way Forward". It was noted that increasing access to potable water and sanitation is key to achieving health outcomes and sustained poverty reduction in Ghana.

The 2008 Conference addressed a number of thematic issues, prominent among which were the following: redefinition of the role of the CWSA in the current decentralization process, determination of the way forward in the change process, identification of issues for the enactment of the necessary Legislative Instruments, identifying alternative sources of income within the mandate of Act 564 and establishment of a strategic integration of ICT within the operations of the National Community Water and Sanitation Program. The Agency also reviewed challenges in its operations in year 2008 and strategize a way forward.

3.13 NATIONAL WATER COVERAGE, GHANA

The national coverage for potable water supply in both rural communities and small towns in the country is estimated to be 57.14% as at the end of 2008. The coverage figure for improved sanitation as at the time was not available. The CWSA is only playing a supportive role as sanitation is actually the responsibility of the Ministry of

Local Government Rural Development and Environment (MLGRDE). The Agency facilitates the provision of demonstration latrines, Hygiene Promotion and the disposal of waste. (CWSA 2008)

3.13:1 definition of coverage according to the NCWSP

Water facility must provide all year round potable water to community members, Each person must have access to a minimum, 20 liters of water per day, Each spout of a borehole/standpipe must serve 300 persons and hand-dug well 150 persons, The maximum walking distance to a water facility must be equal to or less than 500 meters, the water system is owned and managed by the community through established structures. (CWSA 2009)

3.14 ACHIEVEMENTS OF COMMUNITY WATER AND SANITATION IN GHANA

3.14:1 Piped Systems

Within a little over a decade of implementing the NCWSP, there has been significant acceleration in the delivery of water and sanitation facilities to rural communities and small towns in Ghana by the CWSA. As at the end of 2006 delivery figures stood at 272 piped systems for small (rural) communities and 269 for small towns, making a total of 541 newly constructed piped systems

.

3.14:2 Point Sources: Boreholes/ Hand-Dug Wells

There has been a dramatic rise in the construction of point sources for rural communities. From the launch of the NCWSP in 1994 to December 2008, over 18, 567 boreholes have been delivered by CWSA and her Development Partners to

beneficiary communities. These are made of 9,945 newly constructed, 3,398 rehabilitated and 2244, converted boreholes. In addition, 1,333 hand-dug wells were constructed whilst 87 were rehabilitated within the period (CWSA 2009).

3.14:3 Hygiene Promotion

One of the major objectives of the NCWSP has been to maximize health benefits by integrating the provision of potable water, improved sanitation facilities and hygiene promotion intervention. In this regard, CWSA in collaboration with the World Bank, the London School of Hygiene and Tropical Ministry of Local Government Rural Development and Environment, Ministries of Health and Education and some Private Sector companies launched the Public Private Partnership in Hand Washing with Soap (PPPH), in Accra in 2003 (CWSA, 2009).

The campaign to promote hand washing with soap was aimed at improving personal hygiene especially among feeding mothers, child care providers and children in order to minimize the incidence of diarrhea which has been recognized to be the second biggest killer of children globally. The campaign bas been launched in all regional and most of the districts in Ghana.

3.14:4 Capacity Building

The NCWSP is fully established in all the 10 regions, 170 districts and in over 15, 765 communities nationwide. At the community level, over 18,038 Water and Sanitation Committees (WATSANS) have been established and trained. In 2006, 345 Water and Sanitation Development Boards (WSDBs) had been formed and trained, 20,617 Pump Caretakers were trained for pump maintenance at the community level, 422 School Health Committees had also been formed. Out of this number, 273 have been trained

whilst 699 Program Teachers have been trained in water and sanitation management in over 1000 schools nationwide. (CWSA 2009)

3.14:5 Private Sector Support

During the same period discussed above, 234 Technical Assistance Firms, 1,687 Area Mechanics, 4,552 Latrine Artisans, 680 Hand-Dug well Contractors, 990 Sanitation and 447 water facilities Contractors have been formed and trained and are currently providing goods and services in the sector. Ten (10) fully-fledged Ghanaian Private Drilling Companies have been established and are constantly competing with foreign companies in the provision of borehole construction services. (CWSA news 2009)

3.14: 6 Good Governance

The National Community Water and Sanitation Program (NCWSP) activities have lent support to governments at the local level. As indicated above, 14,756 communities and over 1000 schools/ institutions have so far been empowered to take charge of the sustainable management of their water and sanitation facilities. Their empowerment is as a result of the various capacity building activities especially the training in participatory planning, resource, mobilization, gender mainstreaming, conflict prevention and resolution, project implementation and participatory monitoring and evaluation. (CWSA 2007)

In the process, a significant number of women have emerged at the community level actively participating in the planning, design, construction, operation and maintenance and monitoring of their water and sanitation schemes.

3.14: 7 Sustainability of Water and Sanitation Facilities

Under the first phase of CWSP sustainability was based on two key elements:

- Community willingness and capacity to manage and sustain services, and
- Availability of goods and services in the local markets.

Under CWSP2/1, Community management within was strengthened in terms of community (WATSAN and WSDB) organization, financial management, operation and maintenance, and hygiene/sanitation practices.

The focal role that districts are now playing under this project also places them closer to the needs of communities, which will enhance the post-construction monitoring and support. In addition, the role of DAs will be even more strengthened with the passing of a set of new legislation including the Local Government Service Act and the Procurement Act.

Arrangements for post-construction operation and maintenance of the facilities have been implemented and include the following: establishment of the WATSAN Account, training of pump caretakers, mobilizing funds for O&M and the identification and training of Area Mechanics.

The sustainability of water facilities is also likely based on four indicators:

- DAs have been strengthened and now have an active water and sanitation program, allowing them to plan water and sanitation facilities with a long-term vision;
- DAs are actively contributing financially to CWS services as 100% of DAs met their financial contributions towards investment costs and 83% have certified audit accounts;

- under the project, approximately 656 service providers have been trained or are operational, despite the fact that this indicator has to be coupled with a sustainable supply chain; and
- a stakeholder assessment (CWSP 2/2 Community Participation
- private sector participation

Essential maintenance of facilities is important to ensure their sustainability. Under the Community Water and Sanitation Program (CWSP) in Ghana, beneficiary communities are required to fill in a Facilities Management Plan (FMP) which spells out clearly their financial contribution towards Operation and Maintenance of the facility.

Cost of Operation and Maintenance (O&M) of water and sanitation facilities can become an added burden on the rural poor if the appropriate levels of technologies are not selected for both water and sanitation facilities. (The POVERTY Millennium Development Goal, 2005 www.Lboro.ac.uk/well/)

Various fund raising approaches are used by the communities to raise money for Operation and Maintenance (O&M) of the communities' water facilities. In new Abirim in the Eastern Region, the Water Board, using the 'Pay as you fetch' approach has managed to generate over ¢100 million ($10,753) for O&M within nine months. (www.Lboro.ac.uk/well)

Under the Small Towns Water Project, Water Boards are formed in beneficiary communities to be in charge of the operation and maintenance of the water facility. Members of the board are paid a minimum allowance. Pipe attendants who are employed to man the stand-pipes are also paid for their services.

In Ghana, small towns and rural communities have to contribute 5% of the total capital cost of the facilities. In many communities, differential contributions are set for various segments of the community in raising the capital cost contribution: - women pay less than men, children don't contribute and elderly people don't contribute. These are all ways in which the community ensures that the poor also benefit. (MDG 2005)

CHAPTER 4

PRESENTATION OF DATA

4.0 INTRODUCTION

This chapter covers the data collected through field research, stakeholder forum, site visits and personal observation. Information from the interviews were systematized using excel from which tables were generated and presented in this chapter. The next chapter contains analysis of the data presented under the various main headings as captured in the objectives of the study. The information presented in this chapter serves as input for the discussions and interpretation.

4.1 SOCIO DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The socio demographic characteristics of the respondents include both males (30) and females (50). Their ages ranged from 15 to 72 years. Out of the total number 36.3% were single, 55% were married, and 3.8% were widowed whilst 5% were divorced. In terms of formal education, 20 of the respondents had no formal education at all, 10 had at least primary education, 15 JHS whilst 25 of the respondents had SHS education or beyond. In the ensuing discussions, these characteristics are related to the responses to draw meaning and make conclusions.

Table 4.1 Socio demographic characteristics of respondents

Socio-demographic Parameters	Respondents	Number	%
Sex	Male	30	37.5
	Female	50	62.5
Age	10 to 30	14	17.5
	31 to 50	40	50
	51 to 70	25	31.3
	71 & beyond	1	1.3
Marital status	Single	29	36.3
	Married	44	55
	Divorced	4	5
	Widowed	3	3.8
Education	No education	18	22.5
	Primary school	6	7.5
	JHS	10	12.5
	JHS & beyond	46	57.5

(Source: Author's field work, April 2010)

The respondents were asked to mention the sources of water in Funsi. Out of the 80 people who responded to the questionnaire, 75 of them could mention all the sources of water in Funsi. They mentioned the sources as 7 bore holes, a dug out which some describe as a dam, privately owned wells, and rain water during the raining season. Surprisingly 5 of the respondents (men) did not know all the sources water to their community. Probably the men did not know because 'it is not their responsibility to look for water' as one of the interviewees stated.

Out of the 80 responds, 40 of them said the quantum of water supply in Funsi was inadequate, 20 said it was woefully inadequate whilst the remaining did not respond to the question. When respondents were asked whether the supply of water is all year round, 25% said 'yes' against 75% who said 'no' with explanations. One of the

respondents told us that “For the bore holes the supply is all year round but the quantity of water supply is very limited during the lean season, between November and June”. The respondent further explained that the hand dug wells generate water only about 6 to 7 months in a year. When the wells cease to generate water, those who depend on them turned to the bore holes thereby increasing the pressure on them.

Plate 1: Photograph of hand dug well in Funsi

plate 2: Photograph of the new stand pipe yet to be completed

Table 4.2 Respondents’ Perspectives on Key I ssues on the STWS in Funsi

Issue	‘yes’		‘no’		Abstained
	Number	%	number	%	
Knowledge of water sources in Funsi	75	**93.8**	5	**6.3**	
Existence of established structures to manage the STWS	70	**87.5**	10	**12.5**	
knowledge of STWS in Upper West region	65	**81.3**	15	**18.8**	
Capacity of Management Board to manage Water facility	80	**100**	0		
Success of STWS in Upper West region	55	**68.8**	15		10=12.5%
Sustainability of the STWS in Funsi	69	**86**	10	**12.5**	1= 1.3%
Knowledge of difference between previous water sources and the ongoing STWS	74	**92.5**	6	**7.5**	
Ability of project to influence social relationships	78	**97.5**	2	**2.5**	
Contribution of the project to peace in Funsi	75	93.8	5	6.3	
Adequacy of water supply in Funsi	14	**18%**	66	**82 %**	

(Source: Authors field survey, April 2010)

This is how one respondent explained the water situation in Funsi "…water supply cannot be adequate in Funsi since we depend on only 5 bore holes".

Among the respondents who agreed that water supply is all year round, one of them had this to say. "In the lean season we are able to get some water that is able to sustain us". As we speak now there is complete shortage of water in Funsi. He further explained that the inadequate number of bore holes coupled with population increase, frequent breakdown of bore holes is responsible for the shortage of water in Funsi.

4. 2 SOURCES AND SUPPLY OF WATER IN FUNSI

During the lean season the only source of drinking water is the bore holes which normally suffer frequent breakdowns because of pressure on their usage. The bore holes work close to 24 hours a day. At about 12:00 mid night one can still find women in cues waiting to fetch water. The implication of this cannot be over emphasized. Another source of water to the community during the lean season is the dam whose water can only be used for building purposes. "Currently we have 5 bore holes that are functioning, all the steams are dry and it is only the dam which I will call a dugout that we rely on for building. I call it a dugout because it is not up to a standard dam. Contractors who operate in the district rely on that one for water for construction works". - a respondent said.

Table 4.3 Sources of Water in Funsi

Water facility	Provider	Number	Ownership	Management responsibility	Condition
Bore holes	Catholic Mission, DA Community	7	Community	Community	5 of them are functioning
Dam	Community & Catholic Mission	1	Community	Community	Functioning
Hand-dug wells	Individuals	21	Individuals	Individuals	Generate water for 6-7 months
Dug outs at the streams	Farmers		Farmers	Farmers	Function only in the dry season

Source: (Authors field survey, April 2010)

The community enjoys adequate water supply for only 7 months (May to November) in the year. The remaining 5 months is their lean season with the worse occurring between December and March. During the lean season farmers usually dig dugouts along the streams to their farms. These dug outs are temporal and disappears as soon as the raining season sets in.

Several reasons explain why there is inadequate water supply in Funsi. The respondents mentioned them to include the following:

- Inadequate number of bore holes
- Pressure on the few bore holes
- Low water table
- Low water yield by the few bore holes
- Population increase

Wrong geographical location of one of the bore holes also account for the problems of water in the community. One of the boreholes which currently generate the highest volumes of water is located right at the center of the main road in town; as a result women are often disturbed by moving vehicles when fetching water. This also poses a risk to children who go with their mothers to the bore hole to fetch water.

Plate 3: bore hole at the center of the main town road in Funsi


Women fetching water at the bore hole right at the middle of the main town road.

The road is under construction and community members are contemplating the choice they will make; to choose the bore hole or to choose the road. The other side of the road where the road could have been diverted to is the market stores and in the opposite side is a football field which is also used as a town park, the only place used to host social events and ceremonies.

As at February 2010, Small Town Water Systems in the Upper West Region were 17. The table 3.4 below shows in details the distribution and status of STWS in the Upper West Region:

Table 4.4: STWS in UWR, their Distribution and Status

No	Community	District	Year of provision	Status
1	Nator	Nadowli	2000	**Not Functioning**
2	Lanbussie	Lambussie	2000	**Need Rehabilitation**
3	Hamile / Happa	Jirapa	2000	**Need Rehabilitation**
4	Duccie	Wa East	2006	**New**
5	Lawra	Lawra	2008	**Rehabilitation and expansion**
6	Nandom	Lawra	2008	**Rehabilitation and expansion**
7	Gwollu	Sissala West	2008	**Rehabilitation and expansion**
8	Tumu	Sissala East	2008	**Rehabilitation and expansion**
9	Jirapa	Jirapa	1996	**Rehabilitation and expansion**
10	Sakai	Sissala East	2008	**Good condition**
11	Daffiama	Nadowli	2008	**Rehabilitation and expansion**
12	Nadowli	Nadowli	2008	**Good condition**
13	Funsi	Wa East	2010	**Under construction**
14	Kaleo	Nadowli	2010	**Under construction**
15	Busa	Wa Municipal	2010	**Under construction**
16	Babile	Lawra	2010	**Under construction**
17	**Charia**	**Wa Municipal**	**2010**	**Under construction**

Source: (Authors field survey April, 2010)

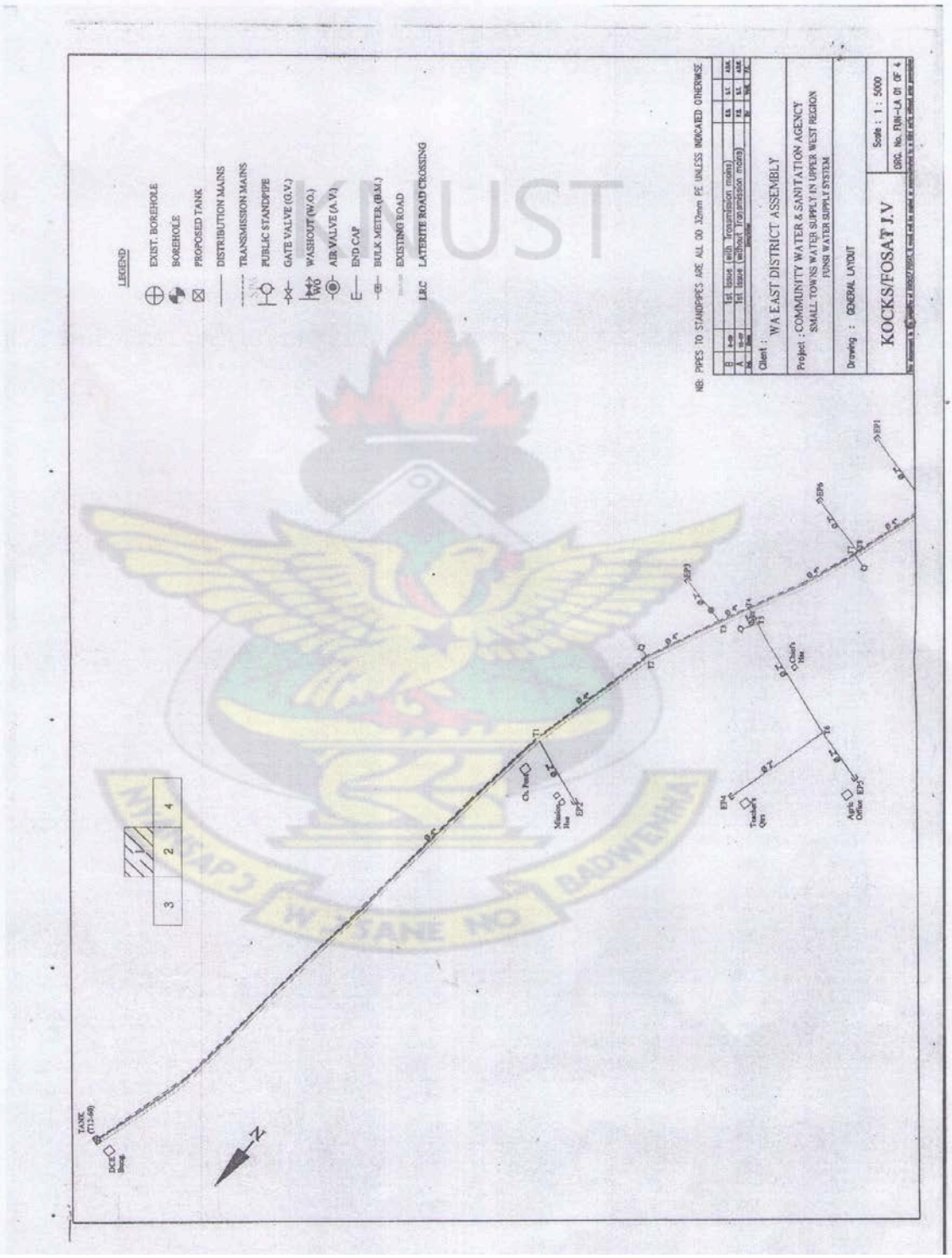
According to the deputy regional director of CWSA in the Upper West Region, 75% of the above mentioned Small Town Water Systems are successful. They are successful in the sense that they are able to serve the purposes for which they were implemented. The main objective was to provide adequate potable water for the

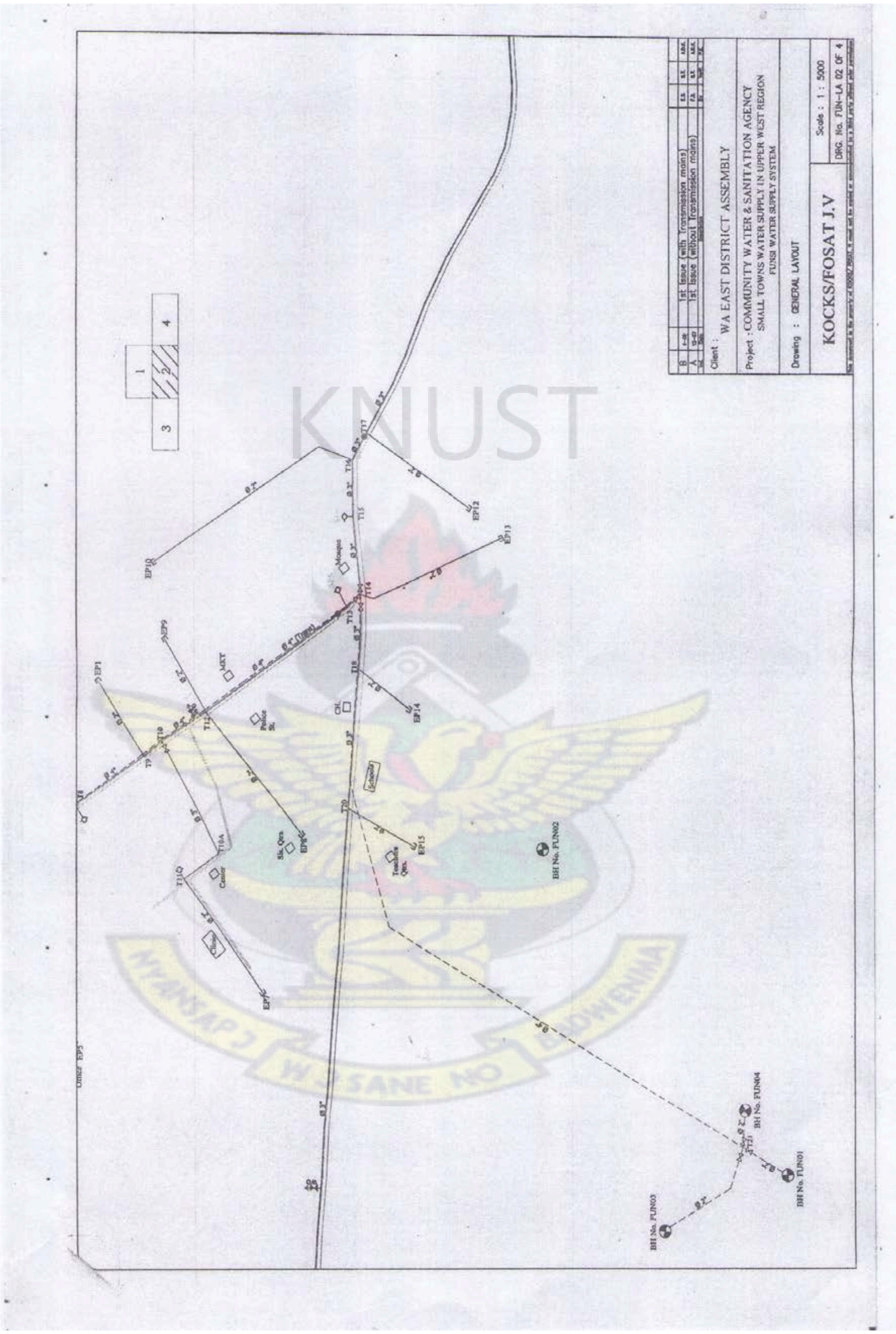
people in the beneficiary communities, to promote and improve the health condition of the people, to eradicate guinea worm and other water related diseases, and create jobs and employment to reduce poverty in those communities.

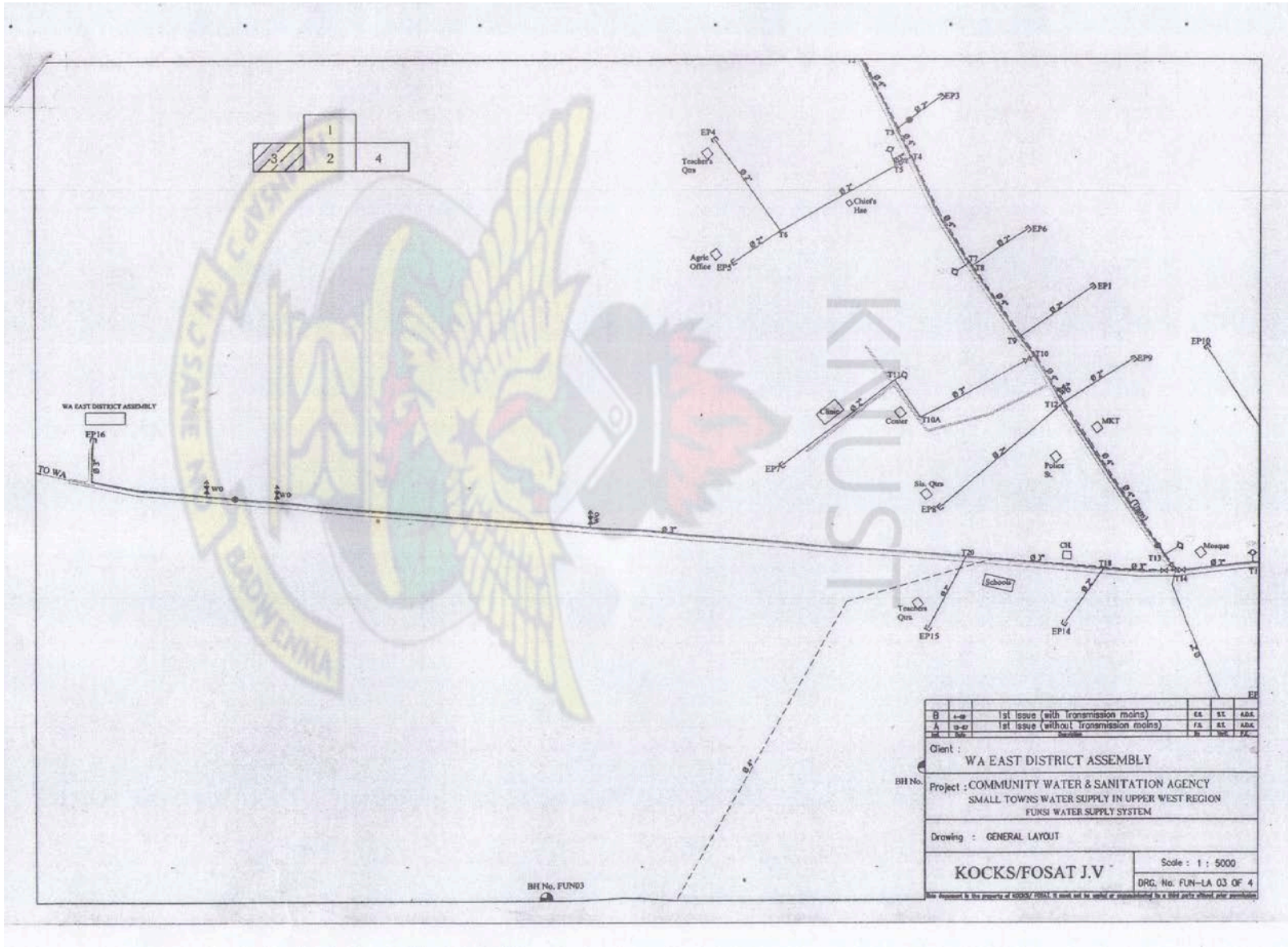
The map attached below is a layout of the Funsi Small Town Water System.

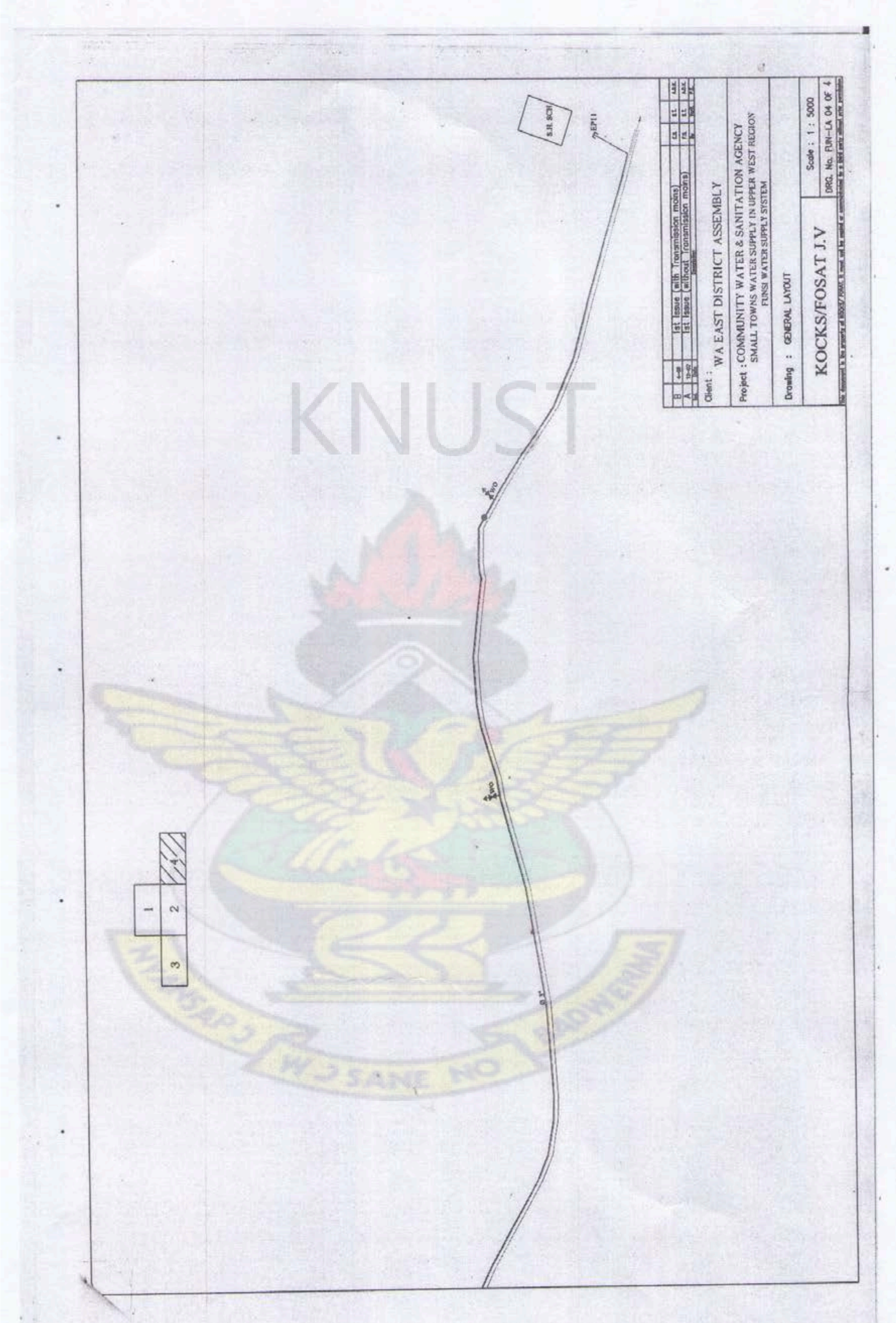
MAP 3: GENERAL LAYOUT OF THE SMALL TOWN WATER SYSTEM OF FUNSI

(SOURCE : CWSA UPPER-WEST REGION, WA 2010)




WA EAST DISTRICT ASSEMBLY
Project : COMMUNITY WATER & SANITATION AGENCY
SMALL TOWNS WATER SUPPLY IN UPPER WEST REGION
FUNSI WATER SUPPLY SYSTEM
Drawing : GENERAL LAYOUT
KOCKS/FOSAT J.V
Scale : 1 : 5000


1
2
3
4
WA EAST DISTRICT ASSEMBLY
EP16
TO WA
EP3
EP4
Teacher's Qtrs
Chief's Hse
Agric Office
EP5
EP6
EP1
EP10
EP9
Clinic
Cooler
MKT
Police St.
Sis. Qtrs
EP8
EP7
Mosque
CH.
Schools
Teachers Qtrs.
EP15
EP14
BH No. FUN03
B 1st Issue (with transmission mains)
A 1st Issue (without transmission mains)
Client : WA EAST DISTRICT ASSEMBLY
Project : COMMUNITY WATER & SANITATION AGENCY
SMALL TOWNS WATER SUPPLY IN UPPER WEST REGION
FUNSI WATER SUPPLY SYSTEM
Drawing : GENERAL LAYOUT
KOCKS/FOSAT J.V
Scale : 1 : 5000
DRG. No. FUN-LA 03 OF 4


S.H. BCH
EP11
B
A
1st Issue (with Transmission mains)
1st Issue (without Transmission mains)
Client : WA EAST DISTRICT ASSEMBLY
Project : COMMUNITY WATER & SANITATION AGENCY
SMALL TOWNS WATER SUPPLY IN UPPER WEST REGION
FUNSI WATER SUPPLY SYSTEM
Drawing : GENERAL LAYOUT
KOCKS/FOSAT J.V
Scale : 1 : 5000
DRG. No. FUN-LA 04 OF 4
1
2
3
4

The deputy director however admitted that there have been challenges in the implementation of most STWS that account for the failure of some of them. He described these challenge as 'human' and mentioned them to include the following:

- Low private sector participation
- High cost of repairing the system
- Inability of communities to attract qualified personnel to manage the systems
- Low level of DA interest in what the Management board is doing
- Low level of communication among the Management Board, DWST, DA and the CWSA.

He sited an example of the Nator STWS which he said is a failure because it is currently not functioning. He said it has suffered frequent break downs and yet it has not received the necessary attention. Management has failed to raise money for its repairs; the management hardly met to take decisions, and their DA has not paid adequate attention to the project.

The assessment of the Deputy Director is similar to the general challenges that face CWSA in the implementation of CWSPs in Ghana as examined in detail in chapter two. They include, government administrative budget support, district level implementation bottlenecks, the Procurement Act, water quality, difficult hydro geological conditions, and non conformity of some NGOs, inadequate community contribution, and low Private sector participation.

The Deputy Regional Director lamented that "...the problem of the DA is that they show interest in getting the facility for the communities, but immediately after the handing over most of them failed to pay attention to the management of it; this is the

major problem that account for failures of the system. The accountant of the DA is supposed to periodically audit the accounts of the STWS, but most often they are not able to do that giving room for the Management Boards to do their own things".

He further stated that at some point during the operation of the facility, there is always the need for the board to meet to revise the water tariffs to meet current economic circumstances, this he said the board failed to do. He added that the DA is responsible for auditing the accounts of the Water board and to provide the necessary advice and training, but it again failed in that respect.

Most respondents who were familiar with STWS in other parts of the Upper West Region gave various reasons why they are successful. These include;

- Beneficiary communities enjoy adequate potable water supply through out the year. "The Lawra one is rated as the best in West Africa" a respondent remarked.
- In communities where STWP exists, the walking distance from houses to the water facilities are shorter, there by reducing the time spent on water.
- They are able to serve their purpose up to expectation
- At the stakeholder fora it was mentioned that the "Guinea worm pandemic in Duccie was eradicated when the STWS was implemented in that community; it also helped to create jobs for the youth".

4.3 SUSTAINABILITY OF THE STWS IN FUNSI

The respondents were asked whether specific measures are put in place to make the ongoing STWS in Funsi sustainable. All respondents agreed that 'yes' such arrangements have been put in place right from the commencement of the project. they explained that the formation of the management board, the recruitment of

technical staff, the operating staff, revenue collectors, vendors and the setting of water rates to ensure efficiency and effectiveness.

Under the arrangement, the revenue collectors are monitored to ensure that they promptly pay the monies collected to the accounts department set up under the board. An office accommodation is also provided for the project staff, an important thing that can sustain the project.

All respondents were sure that the water board has the capacity to manage the water system. They gave various reasons why they think the management has the capacity. They said the community selected people with the requisite qualification, who are experienced well enough to manage the facility. Out of the 9 members of the Water Board, 5 of them were members of the WATSAN Committee that was initially instituted to manage the bore holes, 2 of the women on the Board are teachers who are believed to have the requisite managerial abilities.

The expectations of the respondents were sought on the difference the STWS will make in Funsi when completed. All the respondents including the stakeholders interviewed indicated that the Funsi system is going to be the best in the Upper West Region. Their main response was that, when compared to other towns where the STWS exist, Funsi is relatively a smaller community with a relatively smaller population. It stands to reason therefore, that the water supply is likely to be in abundance.

According to the respondents, it is convincing that the Funsi Project will be successful. They advanced several reasons to buttress this point, some of which are;

- The current one has a reservoir; it also has larger coverage; covering all 9 sections of the town.
- With the current water project there is room for private connection
- It is the first of its kind in Funsi.
- The contractor who they said has been very fast has also done quality work on the project
- It has the capacity to supply water all year round; it has 3 pumping stations and a standby generator.

According to the community members apart from supplying their town with potable water, the STWS is a source of pride to them. The secretary to the water board said that "this is the district capital, the erection of the reservoir; the stand pipes beautify the town. In terms of social relations, we are very proud about the project in our community, it is a prestige and other communities envy us for it"

The project as an intervention has come at a time when it is most needed, at a time when new staffs are being posted to the district to work. It will indeed be a motivating factor to workers to accept posting into Funsi community, a retiree and member of the community explained. He has worked with a very high speed despite few challenges, including the burning of the water reservoir tank by wild fire when it was under construction, the hard nature of the ground and lack of skilled labour in Funsi.

4.4 THE CAPACITY OF THE STWS IN FUNSI

The current STWS has a total of 7 stand pipes. Each stand pipe has 4 taps/spouts. Therefore there will be a total of 28 taps. Each tap is expected to produce 25 liters of water within 5 minutes. The town is divided into 9 sections, two of which are smaller with a population of 200 people. 5 sections are provided with a stand pipe each, the remaining section with populations less than 200 are given 1 bore hole per two communities.

4.5 EXPECTATIONS OF THE PEOPLE

The expectation of the people on the STWP is quite high. The responses of the respondents about their expectations at the stakeholder forum were categorized into two; the expectations during the construction and the expectations after the handing over of the STWS in Funsi. Table 3.5 shows in details the expectations of the people:

Table 4.5: expectation of STWS IN Funsi during and after construction

	Expectation during the construction	**Expectations after handing over of STWS**
	• Work is going on at the site, • That community members are employed to work in the project, good community workers' relationship. • Workers busily working, laying of pipes, materials and equipments been transferred to the site. • I will like to see our people seriously participating and taking keen interest in the activities. • the youth employed in the project • Very supportive community, in terms of labour • Funsi connected to electricity before the completion of the project. • Participation of the citizenry • Adequate material supply • workers working under hygienic condition	• Regular supply of water • The stand by generator is put to use when there is light out. • Hard working management team, • A durable and lasting water system. • Improved productivity as a result of the project • An improvement in the living standards of the people through improved health. • Constant flow of water • Easy access to water • Improved service delivery in all sectors of the districts economy • The community patronizing the water facility; the 'pay as you fetch'. • To see that water is being put to good use. • Continuous flow of good drinking water • Community willingness to pay for water,

	• –--District Assembly to organizes HIV/ AIDS talks and and the distribution of condoms to the workers. • I will like to see the contractor make provision for future extensions of the taps	• Reduced water borne diseases • Users abiding by all rules and regulations governing the usage of the water facility. • The use of well managed meters • Uninterrupted water supply • Compromise between the management and community. • Constant education about the operations of the system • Affordable rates • Frequent auditing of management and revenue collectors

Source: (Author's field survey, April 2010)

4.6 SUSTAINABILITY OF THE STWS IN FUNSI

The opinions of respondents were sought on how their community will take care of the project to ensure its sustainability. According to the secretary of the DWST, to sustain the project, it will be necessary that the people of Funsi should patronize the 'pay as you fetch' system. He added by saying that the people should provide adequate security to the entire system including those who are directly working on it, and ensure that they keep their environments or surrounding clean.

When the respondents were asked the way and manner they will take care of the project to sustain it, they were able to advance several strategies that they have already put in place. For example, a respondent said "the community has since set up a Water Management Board to manage the new facility".

The constitution of the management of the new facility includes the following: A system manager who is the head of the management team, an accounts clerk, 2 revenue collectors, 7 water vendors, and 2 system operators. The responsibilities of

the system operators are to be in charge of the daily repairs and maintenance including changing the valves.

They have adapted the operational policy known as ‘pay as you fetch’. It means that before any one would fetch water from any stand pipe, he or she must readily pay cash before fetching.

The management board came out with their tariffs during their last meeting in February 2010. A size 32 bucket of water will be sold at Twenty Ghana Peswas (0.20GP)

Plate4: CWSA office accommodation

Plate5: standby generator fixed at the pumping station

4.6:1 the Management of the STWS in Funsi

The entire Management System is divided into two; the Water Management Board on one hand and the Secretariat on the other. The secretariat is made up of a team of technical staff who are appointed based on merit through competitive interview conducted by the board in collaboration with the DA. After their appointment they were given training by the CWSA and the DA to enable them to provide quality services.

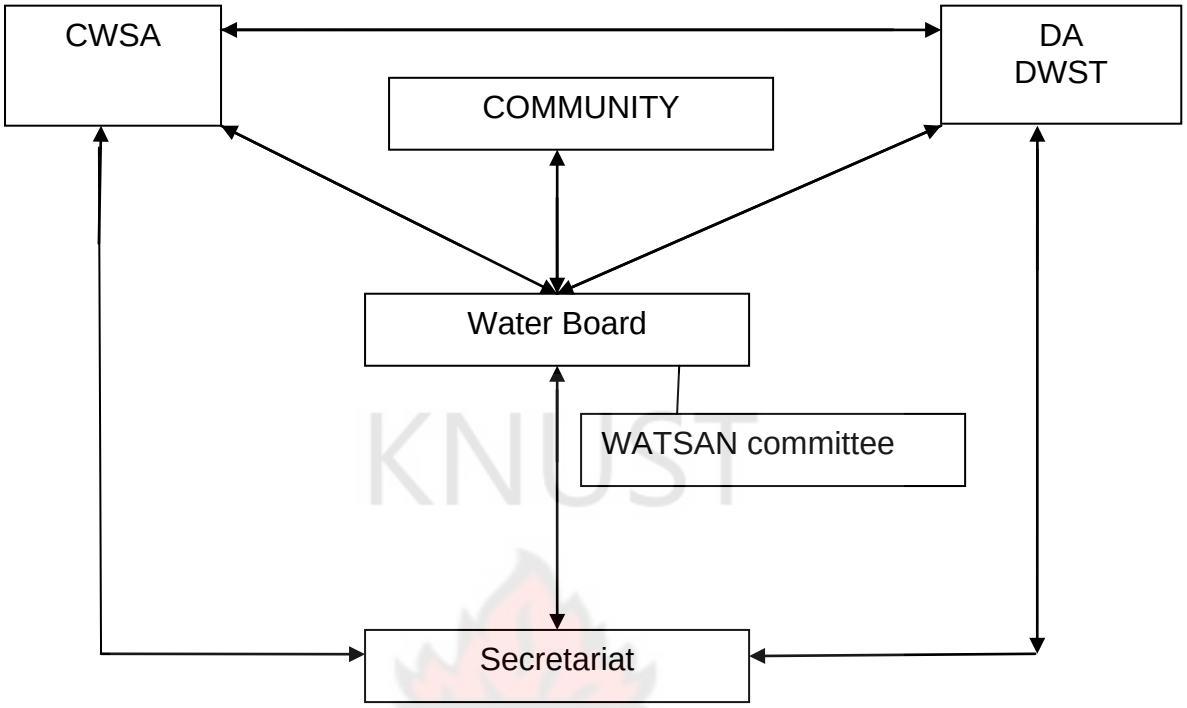
It is important to note that the community does not address their concerns directly to the secretariat. If they have some concerns they are to refer them to the Water Management Board for redress. In consultation with the District Assembly (DA) all major issues will be addressed by the Board. According to the Deputy Regional Director of CWSA, the DA through its Water and Sanitation Team has a responsibility to supervise and monitor the activities of the Secretariat and provide them with the necessary assistance.

It is the responsibility of the Board to identify the training needs of the secretariat and inform CWSA or the DA for action. It is also their responsibility to come out with rules and regulation to govern their operations.

To achieve sustainability, the respondents said there is the need to propel the people to patronize 'the pay as you fetch' policy and get used to buying water. As a result, the Board came out with a policy not to allow for private connection for the first two years. They also resolved to include the bore holes into the "pay as you fetch" policy. They believe that this will compel the people to buy the water.

Under an arrangement reached at a meeting with the community as a whole, all the current bore holes which were initially handled by the WATSAN Committee are going to be taken over by the newly constituted Water Board. However the handing over will take place at the time when the STWP is fully completed and handed over to the community.

Diagram 4.1 Organizational structure of Funsi STWS



Source (Authors own April 2010)

4.7 SPECIFIC MEASURES THAT ARE PUT IN PLACE TO MAKE THE STWS MORE EFFECTIVE

To make the STWS more effective the Board came out with the following measures:

- To implement the 'pay as you fetch' policy to the latter. Under the policy all consumers are to buy or pay for the water at the point where they will be fetching the water. Vendors will be employed and made responsible for selling the water at each stand pipe. It is a direct shift from free access to water which the community has since enjoyed over the years. It is likely that implementing the 'pay as you fetch' policy may face some resistance since people often find it difficult to change. However the motivation of easy access, time and distance by the STWS could be an advantage and attraction.

- Debarring private connections for two years. The rational behind this decision according to the respondents is to compel the people to get used to paying for water.

To make the STWS more effective, the Water Board suggested that measures must be put in place to deter people from illegal connection and avoid building on the pipe lines. They added that people should abide by all regulation about the water project.

It is how ever observed that if major institutions such as the Catholic Social Centre and the Clinic are debarred from private connection there could be some consequences. Such institutions require larger volumes of water and cannot buy from the stand pipes. It advised that the Water Board should consider allowing them for private connection.

More also those institutions are capable of paying for the water and should be given permission for private connection.

4.7:1 Advantages of the Community Management and the Pay As You Fetch Policy

The respondents were asked about their opinion on advantages of the community management and the 'pay as you fetch' to the success of the project. An assembly member who is also a member of the Water Board said that the kind of Management we adopted is a good policy I think, it can enable us generate money for maintenance and repairs.

At the meeting with the stakeholders, it was noted that community management make it possible for easy monitoring of the project by members of the community.

The respondents said the system is going to be run as a private enterprise; this they believe is the sure way to the sustenance of the project. One of the respondents told me that the intended management style gives room for members of the community to play a monitoring role 'instead of strangers'. With this kind of management there is likely to be accountability, transparency, good human relationship, good record keeping, regular board meetings and more avenues for fund raising.

It is hoped that this type of management will build the capacity of the team to handle bigger projects in future; it will lead to proper documentation, something that has been a challenge to the WATSAN committees. The respondents said the management system will "ensure regular supply of water, smooth running and care for the entire project

4.7:2 Measures that will be adopted to make the pay as you fetch more effective

The suggestions of the respondents were sought as to what mechanisms and strategies should be adopted to make the pay as you fetch to work. Below is one of responses:

"To compel people to buy the water, management should disconnect or lock all the existing bore holes as soon as the STWP takes off"… if we allow the facility to be managed like a private entity it will ensure sustainability and efficiency especially in revenue generation the respondents added.

Other measures adopted to make the pay as you fetch effective were mentioned to include the following:

- The selection of the technical staff on the project should be purely on merit and not on political affiliation. If people are selected based on their qualification, they will be in the position to deliver efficient services.
- Management should keep stock of spare parts in the case of any eventuality

- A respondent suggested that water revenue should be collected section by section to identify which sections are able to pay for the water most.
- Through transparency the board will be able to manage the project very well.
- There should be regular meetings to inform the people about their activities. This will enhance cordial relations between members of the board, the secretariat and the entire community. This kind of participatory management according to them will help to remove all kinds of doubts in the minds of the people.
- To eliminate all kinds of corrupt practices, there should be checks and balances in the management of the project.
- The DA and CWSA should be assigned supervisory roles on the project, something that can increase collaboration between the community and the two institutions and keep them constantly informed about the state of events at the project. - Stakeholders

4.8 THE ADVANTAGES OF THE FUNSI SMALL TOWN WATER SYSTEM

Because of the experiences from previous STWS in the Upper West Region, some specific measures were taken during the planning stage of the project to make Funsi STWS, more successful. They were mentioned to include the following:

- The contractor used metal pipes especially to encase all plastic pipes at points where the pipes cross galleys to protect them.
- The provision of a stand by generator that will supplement electricity supply when it is completed.
- The pump station is made up of three drilled bore holes or pump houses all of which are mechanized, and designed in such a way that two will be working concurrently at a time while the one is on reserve.

- The WATSAN committee has been fused into the Water Management Board, to forestall conflicts and also to make use of the experience of the WATSAN committee members. The other members are to be maintained and given the role of information dissemination.
- The Water Management Board is well equipped with a well furnished office accommodation for their operation.
- The fair representation by women is one of few cases in the Upper West region where women are often reluctant or not given the chance to serve on boards and committees
- Money in the accounts of the WATSAN committee will be transferred to the accounts of the new Water Board as seed capital.

4.9 SOCIO-CULTURAL ISSUES THAT CAN AFFECT THE SUCCESSFUL IMPLEMENTATION OF THE PROJECT

According to the profile of the Wa East District Assembly, Funsi is an agrarian society. Agrarian societies are usually characterized by beliefs and practices that do not auger well for some development activities. The socio cultural dynamics that can affect the success of the Small Town Water System in Funsi, according to the revelations of the research include the following:

- Scattered location of some graves in the town could pose some dangers to the pipe lines and users. This is as a result of indiscriminate burying of the dead could also be a threat to the project as some pipes lines may be affected.
- One of the respondents, noted with great concern that the town is divided into sections and the pipes are distributed in accordance with the sectional divisions. The likelihood is that some people may be prevented from fetching

water from other sections where they do not reside. According to the respondent personalizing the standpipe has a potential of generating conflict, though it can also make people responsible for maintenance.

- It is also feared that when private connections starts, family members may not want to pay when they fetch the water from their own houses. This can put pressure on the landlords. Thus it can strain the hitherto cordial relationship between family members or lead to the indebtedness the landlords.
- Another practice that can be a threat to the system is indiscriminate bush burning. This can lead to burning down of electricity poles. In reference to the district profile, Funsi is characterized by long period of harmattan which makes it susceptible to bush fires in the dry season.
- The activities of social misfits are also a potential threat to the project.
- During social events like funerals, payment for water may be a problem
- In other communities like Lambussie the belief that 'water is not supposed to be sold' is a major factor that has led to the near collapse of the STWS. When the machine broke down they did to have money to repair it; it was therefore shut down for over a month until the district assembly came in to support.

4.9:1 Specific measures put in place to address the socio cultural issues

The respondents mentioned various measures that can help curb the negative effects of the socio cultural practice against the success of the project.

- Sensitization and education regarding the operations of the STWS.
- To generate enough revenue, private connections should be charged commercial rates.
- The management board in collaboration with the DA should come out with bye laws regarding the operation of the entire system. The respondents

suggested that the bye laws should include punitive measures that are deterrent to offenders.

4.10 REDUCING POVERTY THROUGH THE STWP IN FUNSI

It is a fact that development facilities like the Small Town Water Facility can attract other benefits to beneficiary communities and help reduce poverty. According to a report by WaterAid dubbed 'Boiling Point report' on the MDGs: the efforts of villagers to make woven baskets in Northern Ghana have been hampered by the insecure supply of good quality water. Because of the competing uses over the limited supply, the lack of time, often brought about by the need to fetch water from distant sources, and health problems, stemming from polluted water and limited hygiene practices, it has been difficult for women to make a living.

On that basis the opinions of respondents were sought on how the project can secure time for women, reduce distance, improve health, reduce disputes, increase employment and above all, contribute to poverty reduction in Funsi.

Table 4.6 Rating of the Project in terms of its ability to address Socio-cultural Issue

Rating	*(1) Increase*	*(2) Significantly Increase*	*(3) Remain the same*	*(4) Decrease*	*(5) Significantly decreased*
Issue					
a. Land disputes	**0**	**0**	**6**	**10**	**2**
b. Water related diseases	**0**	**0**	**0**	**16**	**2**
c. Water related conflicts	**0**	**0**	**0**	**16**	**4**
d. Leadership problems in Funsi	**4**	**0**	**4**	**8**	**4**
e. Unemployment	**0**	**2**	**2**	**16**	**0**
f. Poverty	**0**	**0**	**6**	**12**	**2**

(**Source:** Author's field survey, April 2010)

The respondents said the project is a good potential for sachet water business.

In addition, if the community has qualified personnel they would be employed to work at the secretariat.

More importantly the respondents mentioned that people normally fall sick and spend a lot of money paying for hospital bills. They were confident that the project will spare them a lot of these monies since it will reduce sicknesses particularly those that are water related.

Further, if they are healthy they will be able to go to their farms and businesses.

4.11 ROLE OF COMMUNITY MEMBERS TOWARDS THE SUSTENANCE OF THE PROJECT

For a community owned project like the STWS each member of the society has a role to play towards the sustenance of it. Children, women, men and traditional authorities have specific and general roles to play. The respondents gave specific and general recommended roles that each of the above mentioned groups of society should play:

Women: They should use water judiciously, take part in decisions regarding the project and take advantage of the project to start their own business.

Men: They should assist their wives to pay for the water, comply with all rules regarding the operation of the facility, and provide labour and security when ever it is needed.

Children: children should not to temper with the stand pipes, they should learn how to use the system properly, to desist from all kinds of risky behaviours, and take part in all decisions.

Traditional Authority: to cooperate and attend meetings for knowledge ‘not for monies’, to implement decisions, disseminate information, encourage their subjects to buy the water and assist to punish offenders of bye laws.

4.12 PROVISION FOR ACCESSING WATER UNDER THE 'PAY AS YOU FETCH POLICY'

In every human society there are a category of people who very poor and disadvantaged by nature, for example, the blind, the cripple and the aged. The community through the Water Board has made provision to assist the socially disadvantaged to access water under the STWS. All the respondents believed that the relatives of the socially disadvantaged people should take care of them. All of us are poor; it will be difficult for some one to identify who is not poor" one of the respondents stated.

4.13 The benefits of the STWS to the people of Funsi

The current STWP in Funsi has the capacity to provide constant supply of water through out the year. The stand pipes provided are enough to reduce time spent on queues in search for water. In Jirapa for instance, their project is able to supply potable adequate water to the inhabitants, I am sure that our own will also provide all our water needs. The current project will go a long way to improve the health status of the people and alleviate suffering they undergo to get water during the lean season.

The water project will also reduce walking distance to water facilities, reduce water borne diseases and improve the health conditions of the people.

As a community, "…we are very proud about the project in our community, it is a prestige and other communities envy us for it. Health wise it will improve our condition, it will also reduce the work load of women, encourage workers to stay in Funsi, and ultimately reduce the time spent on water" one of the respondents emphasised.

4.14 CHALLENGES DURING THE CONSTRUCTION THE STWS IN FUNSI

All 80 respondents agreed that at the time of the construction there were some challenges; challenges that confronted the contractor and the community as a whole. The challenges during the period of construction are compared with the challenges after the construction and handing over the STWP to Funsi as shown in the table below:

Table 4.7 challenges during and after the construction of the STWS in Funsi

Challenges during the construction	**Challenges after the handing over to the community**
• The rocky nature of the ground made the digging extremely difficult. • Fire burning the reservoir tank. • The absence of electricity delayed the work. • Lack of skilled labour in Funsi to be engaged to work on the project. • Open defecation near or along the pipe lines	• Maintenance difficulties • Disagreement over how much pump attendants should be paid. • Over reliance on the DA for the maintenance • Absence of dedicated people to work in the project" • Men's reluctance to assist their wives to pay for the water. • Illegal connection • Poor accountability, • Irregular flow of water and • Damage pipe lines through indiscriminate digging of trenches

4.14: 2 How to Curb the Potential Challenges of the Project

To curb the potential challenges the STWS 70% of the respondents said the board should do the following:

- Set affordable water prices

- Educating and sensitizing the people about the importance of ‘pay as you fetch’
- Commitment to duty by those managing the facility and the regular payment of rates
- Training the youth
- Constant community interaction with CWSA
- Severely punishing offenders
- Close monitoring, supporting women to pay for water.
- Regular monitoring and maintenance of pipe lines
- Involvement of the private sector
- Doing away with some irrelevant socio cultural practices

4.14: 3 the Provisions for Basic maintenance of the Facility

When the respondents were asked whether there are provisions to ensure that basic routine maintenance of the water facility, 75% of them said yes. They mention such provisions to include the following.

- Two persons (operators) from the community have been trained by the CWSA to be engaged in daily servicing and maintenance.
- ‘pay as you fetch’ is in place.
- There is provision for the training of the staff, purchasing of spare parts, and the creation of an operating account where all monies generated will be deposited.
- Management Board in place.

4.13: 4 Generating revenue to manage and maintain the water facility

Apart from the 'pay as you fetch policy' the respondents were asked how the community will access additional funds to maintain the system. They said that apart from selling the water, defaulters of regulations will be levied. People whose activities or actions cause damage to the facility will equally be levied. Also, private connection fees, fund raising, donations, DA and assistance from Development partners will be sought, thus satisfying the community financial management criteria of the STWPs.

4.14 WATER AND CONFLICT IN FUNSI

The absence or shortage of water in a community can lead to conflict, the presence of it too if not well managed can lead to instability. According to OECD's Development Assistance Committee 2005, access to water and water allocation and use can become the focus of tensions, which may potentially spill over into conflict, within or between states. Direct violent conflicts over water are most likely on a local level, for example, the privatization of drinking water or access to water point.

To find out the possibility of conflict in Funsi as a result of the STWS 90% of the respondents ruled it out. One of them had this to say "There is no way the presence of the water can lead to conflict. Already we are in dire need of water, how can its presence lead to conflicts, it would rather reduce conflicts. Our women struggle for water at the bore holes and through that they fight, we are sure that the project is rather coming to stop these fights".

However 10% of respondents believed that it is possible for the presence of the water system to increase conflict. They explain how the conflicts can start by saying that "…not all persons will be able to pay for water and such people can easily become offended and this can lead to conflict and hatred. Also, people who are influential will

like to fetch the water without paying for it; this discrimination when it is allowed can lead to conflicts.

They however said that under the arrangements by the Water Board, issues of conflicts can be averted or addressed when they occur.

The management board, the leadership of the community and other opinion leaders will be responsible in solving such kind of conflicts.

In the event of a conflict, the Water Board will address it; if it is necessary the CWSA will be invited. The DA and even the District Police can assist the management board to address all conflicts.

4.15 DIFFERENCES BETWEEN THE PREVIOUS WATER FACILITIES AND CURRENT STWS

When respondents were asked whether there is a difference between previous water facilities and the current ongoing water facility, they all affirmed there are differences. Their explanations included the following:

- With the previous ones, the water was not sold but with the STWS the water is going to be sold.
- There was no office accommodation for the previous water system as we have with the STWS.
- The STWS has a water reservoir whilst the previous ones did not have
- Human power is used to pump water from the bore holes but with the STWS it will be powered by electricity.
- The previous water system was managed by WATSAN committee while a Water Management Board is set up to manage the STWS.

- With the STWS the taps are fairly distributed when compared to the bore holes.

Plate 6: standby generator

Plate 7: water reservoir near completion

4. 16 INFLUENCING SOCIAL RELATIONSHIPS THROUGH THE STWS

Apart from serving the direct purpose in which they are implemented, development projects are able to impact on the way people relate to one another in the community. Hence the respondents were asked how the STWS is going to influence the way people relate to one another. Their responses were summarized below:

Table 4.8 the extent to which the STWP in Funsi will influence relationships between members of the community

Rating	(1) Improved	(2) Very much improved	(3) Remained the same	(4) Not improved	(5) Worsened
Relationship					
a. Interaction between community members	16	4			0
b. Participation in development activities	16	4			0
c. Involvement of women	10	10			0

d. Involvement of children	4	2	8	2	0
e. Self help initiatives	8	6	2	4	0
f. Workers and Community members	6	10	2	2	0

(Source: Author's field survey April March 2010)

The women are always at the bore holes to get water for the family; sometimes they are not able to get the water but they will now have adequate supply of water which will reduce their work load and save them time.

The project will promote and enhance good relation between community members since it is bringing relief to the people. Each section in the community is given a stand pipe which has the capacity to supply the water needs of the people within the area.

On the negative side, some groups of people may want to exercise greater control than others and this can strain relations. As soon as people start fetching water from the facility there would be some few misunderstanding at the initial period but with time every one will become used to the system.

Also stand pipe operators will have problems with their relatives who may not want to buy the water, especially those people who will not just see why water should be bought

If the project is not likely to generate conflicts as was agreed by 90% of the respondents then it is more likely to contribute to peace in the community. Various reasons were given. Below is a summary of them.

Quarrels that often occur between women over water at the bore holes will be stopped.

The project has brought the people of Funsi together because it creates an atmosphere for them to meet and discuss development matters.

Women are part of the Water Board; out of 9 members of the Board 4 are women. This will offer women the chance to bring forth issues that affect them for discussion. This has an advantage to foster the relations between men and women.

Some of the people attribute purely water related sicknesses like diarrhea to witchcraft and accuse their neighbors of being the cause. Having potable water will reduce the water related diseases and thereby save the people from troubles.

On the negative side the project is likely to add more burdens on women since they are the ones who are responsible for supplying their families with water. Their husbands are less likely to assist the women with money to buy the water.

From November to April every year, mid night is used by women to fetch water at the bore holes for their families, because that is the only time they can avoid the long queues during the day. By so doing they are sometimes accused by their husbands for going out to visit other men. All these problems will soon be a thing of the past.

The STWS will enable women to have enough time for their families since they will be spending less time on water. There will be enough time available to attend to other domestic chores instead of spending all the time looking for water during the lean season.

The project can lead to intermarriages as people from different places are going to be employed to work on the project. "…one girl has already named one of the workers on the site as being responsible for impregnating her" a respondent disclosed.

Table 4.9 Enhancing gender relations and reducing the burden of women through the STWS

Rating	***(1) Increase***	***(2) Over Increase***	***(3) Remain the same***	***(4) Decrease***	***(5) Significantly decrease.***
Issue.					
a. Access to water by women	**10**	**4**	**0**	**2**	**4**
b. Working hours of women	**6**	**2**	**0**	**8**	**4**
c. Gender equity in facility management	**20**				
d. Lateness of girls to schools	**0**	**0**	**2**	**16**	**2**
e. Absenteeism of girls to school	**0**	**0**	**2**	**7**	**4**

(Source: Author's field survey April 2010)

CHAPTER 5

EXPECTATIONS OF THE SMALL TOWN WATER SYSTEM (STWS) IN FUNSI

5.0 INTRODUCTION

In the previous chapters, the research work covered the background to the study, research methodology and objectives, literature review and data presentation. This chapter contains detail discussion and analysis of the data. References of the findings are made to literature reviewed as and when it became necessary to draw conclusion and make appropriate recommendation.

5.1 DISCUSSION

5.1:1 Existing Water Sources in Funsi

The study confirmed that water supply in Funsi is woefully inadequate. The adverse effect of the situation is not only the increase in water related diseases, but the harm it is causing to the social fabric. It creates suspicion among couples, and leads to the breakdown of the nuclear family ties. Over 93% of all the respondents could mention all the sources of water in the community without having to think. This is because the numbers of water facilities are very small. Also it could be that at one time or another, people had scouted for water in town, making them familiar with the situation on the ground. Over 92% of the respondents anticipated that the performance of the STWS will be far better than the current bore holes.

It was noted that one of the high yielding boreholes has ‘found itself, located right at the middle of the main road in town leaving residents in a state of confusion as the road is awarded for tarring; either they will chose to condemn the bore hole or condemn the market stores and divert the road to that side, or divert it through the

town park. This is a clear demonstration of a conflict of development. On one side of the bore hole are market stores and on the opposite side is the town park used to host social events.

The high anticipation of the people on the STWP is good grounds for the Board to implement the 'pay as you fetch policy' which some express their reservation about its success because they think people are not used to buying water.

5.1:2 STWP in the Upper West Region; Their Successes and Failures

There are 17 number STWS in the Upper West region. The first phase of the project was implemented in the 2000 in 2 districts, namely Nadowli and Lambussie. The second phase was in 2006 at Duccie and Jirapa. In 2008, 8 STWS were provided. The latest phase includes 5 projects distributed to 4 districts with Wa Municipal benefiting from 2 out of the 5. The study revealed that almost all the projects that were in the first and second phases need rehabilitation except the Duccie and Nadowli ones which are in good condition.

The study showed that the STWS have largely been successful even though there are some identified challenges; 68.8% of the respondents agreed that the SMTS are successful. They are successful because they are able to provide adequate water needs for the beneficiary communities. The STWS has contributed to the eradication of a guinea worm pandemic in Duccie in the Wa East District.

Few of the STWS have however failed to meet their objectives, the worse amongst them being the Nartor STWS which is said to have failed after suffering several

frequent breakdowns. The responds of the respondents indicated that 15% of STWS in UWR have failed. The causes of the failures are as follows:

- Low private sector participation
- High cost of repairing the system
- Inability of communities to attract qualified personnel to manage the systems
- Low level of DA interest in what the Management board does
- Low level of communication among the Management Board, DWST, DA and the CWSA.
- Inability of Management Board to generate revenue
- The failure of financial policy of the Water Boards
- Beliefs and practices that are detrimental to the project
- Illiteracy and general lack of understanding by the people

5.1.3 Management of the STWS in Funsi

Under the first phase of CWSP sustainability was likely based on two key elements: Community willingness and capacity to manage and sustain services, and the availability of goods and services in the local markets. Under the second phase of CWSP), sustainability was based on Community management terms of the community (WATSAN Committees) and Water and Sanitation Development Boards (WSDBs) organization, financial management, operation and maintenance, and hygiene/sanitation practices -(World Bank 2005)

The management of the STWS in Funsi has a total staff strength of twenty (20); 5 belong to the Management Board and 15 are staff of the secretariat. The success of the water system depends much on the management since they are working directly on

the project. As direct representative of the people, management reports to CWSA through the DA, through the District Water and Sanitation Team (DWST). To ensure efficiency flexibility and swift response, management has been encouraged to report directly to CWSA. Apart from the sale of water revenue will be accrued through levies, fundraising and donations.

5.1:4 Expectations of the STWP

The expectations of the STWP are that it will address the water needs of Funsi, provide the people with employment, promote peaceful coexistence, improve their health and reduce poverty. Women in particular will have more time for their families. Because they will spend less time on water, they will be able to engage in more productive economic activities to earn additional income.

It was revealed by the study that some people have little understanding about the STWS especially how it operates and how it can be maintained. This calls for the need for education and information dissemination. Although knowledge of the people about STWS in Upper West Region is high, understanding of how they operate is low; 12. 5 % of all the respondents could not tell whether the other STWS are successful, reasons being that they are not aware of how they operate.

It was also realized that the DAs often abandon their role to monitor and supervise the Water Board under the STWS after the completion and handing over of the project to the beneficiary community. The effect of this is mismanagement by the Water Boards, failure to generate enough revenue for maintenance and finally the failure of the system to serve its purpose. According to the Deputy Regional Director of CWSA, “Management has failed to raise money for its repairs, the management hardly met to take decisions, and their DA has not paid adequate attention to the project”

The expectations of the people were more at the time when the project was completed and in use. While the women expected the project to reduce the time, and energy they spend looking for water, they are also afraid that it will increase their financial burden. The study showed that men in Funsi are not prepared to assist their wives to pay for the water. It is a belief in Funsi that it is women's sole responsibility to fetch water for the household. The current position of men needs to be tackled with seriousness through education and sensitization since women alone will not be able to buy all the water to satisfy the household's needs.

The result of the financial burden on women in the community can lead to the depletion of the forest. The main source of income to the women during the dry season is selling of firewood and charcoal; therefore the need for more money to buy water implies more cutting of fuelwood and consequently the depletion of the forest reserves. This is thus an indirect effect of having to buy water.

5.1:5 Contributions of the people of Funsi to the sustenance of the STWS

The people of Funsi have long been suffering from inadequate and non availability of water, therefore it is incumbent on them to contribute to the sustenance of the STWS if they do not want to return to the past when because of water women will have to abandon their husbands and children and go to bore holes at midnight to fetch water.

The results of the study showed that the expectations from community members on their commitment towards the success of the project include the following: Women are to use water judiciously, take part in decisions regarding the project and take advantage of the project by starting their own business. Men should assist their wives to pay for the water, comply with all rules regarding the operation of the facility, and provide labour and security whenever it is needed.

Children should be guided not to temper with the stand pipes, they should learn how to use the system properly, to desist from all kinds of risky behaviours, and take part in all decisions, While Traditional Authority should cooperate and attend meetings for knowledge 'not for money', to implement decisions, disseminate information, encourage their subjects to buy the water and assist to punish offenders. These useful suggestions need to be consciously implemented to derive the full benefits of the STWS.

5.1:6 The Success Of The Current STWS in Funsi

The success of the project will be determined by several factors; factors that are within the influence of the community and those that are outside the influence of the community.

5.1:6a factors that are within the community include the following:

- The ability of the Management Board to do their work with dedication and efficiency
- Readiness of the people to patronize the 'pay as you fetch' policy
- Readiness of the people to support the Management Board in the discharge of their duties
- The effectiveness of rules regulating the operation of the entire system
- The ability of the technical staff to regularly service the pumps and their ability to detect major faults early before system break downs
- The availability of resources to procure spare parts for replacement when ever its necessary
- The ability of the management to mobilise funds, liaise with DA, CWSA, and other development partners for support to assist the project

- The ability of management to reinvest revenue of the water into useful ventures to increase the financial capability
- The level of participation by the citizenry

5.1:6b factors that are outside the influence of the community

- The amount of interest the DA will show on the operation of the project after the construction and handing of the STWS to the people of Funsi.
- The ability of CWSA to constantly monitor, identify and provide appropriate training to both the Management Board and the technical staff.
- The ability of the DA to close ties with the CWSA after the handing over of the project to the community to help sustain it.
- The absence of natural disasters.
- High level of private sector participation.
- Increased communication between community, DA, and CWSA

5.1: 6c Advantages that the Funsi STWS has over others

Through the study it was discovered that the Funsi project has some advantages which when well tapped and utilized can lead to the success and sustenance of it. They include the following:

The population of Funsi is relatively small when compared to other towns. According to the 2000 population census, the population of Funsi when projected at 1.7 growth rate per annum will be 6000 as against 28 spouts of the stand pipes. According to Coverage standards by CWSA, each spout of a borehole/standpipe should serve 300 persons and the hand-dug well, 150 persons. This it implies that each spout will serve

214 people with water. If the boreholes are added, then a spout will serve 181 people. It means water supply in Funsi will be more adequate.

Further, the additional standby generator will supplement electricity supply so that there will be constant supply of water. This is something the other STWS do not have.

The pump stations are also three in Funsi; two of which will be working at a time while the remaining one is on standby.

The provision of an office accommodation for the Management Board and the Secretariat is a step in the right direction towards the sustainability of the project in Funsi. It makes monitoring, records keeping and training very easy. It will also serve as a point where people who have complaints about the services of the system can have their concerns raised. The office accommodation will make the community ownership more real than if they were to be given an office at the DA as it is happening in other districts. “Indeed it makes the sense of community ownership real” as indicated by a respondent.

5.2 SOCIO CULTURAL ISSUES THAT CAN AFFECT THE SUCCESS OF THE STWS IN FUNSI

Funsi has an agrarian economy with a very high illiteracy rate. According to the profile of the district, the illiteracy rate is very high (about 80%). The implication is that the people are still so much accustomed to their traditional culture and ways of doing things, which are detrimental to development projects such as the STWS.

Burying corpses in and around the houses is still practiced in Funsi. This could be a threat to the pipelines, in the sense that during the process of digging they can hit on

the pipelines. This is linked up to the fact that Funsi has no cemetery. Each of the sections chooses to bury their dead anywhere they like, even within their compounds.

Another practice that can be a threat to the system is indiscriminate bush burning. The main economic activity of the people is farming, substituted with hunting during the dry season. Hence, an attempt to get access to small animals by those who engage in such activities set fire to the bushes around. The fire can get escalated and destroy farmlands including electricity poles. If this is not checked it can lead to the burning down of electricity poles that serve the pumping stations.

The activities of social misfits or bad boys are also a potential threat to the project. It was realized during the study that some of the youth engage in wee smoking and drug abuse and when they get intoxicated they can abuse the rules and regulations governing the operation of the water system.

During social events like funerals, payment for water may be a problem in the sense that women will not be able to pay for the larger quantities of water that will be required.

Related to the above is the belief that it is the responsibility of women to supply the households with water. Under the policy of 'pay as you fetch' if the men do not support the women to buy the water, it can affect the system since women cannot afford to pay for the water all the time.

5.3 ANALYSIS OF THE POTENTIALS, OPPORTUNITIES, CONSTRAINTS AND CHALLENGES (POCC ANALYSIS)

The study showed that there are various opportunities and potentials which when they are well exploited can be used for the sustenance of the STWS and assist in directing other development projects in the district. On the other hand it was also realized through the study that there are some constraints and challenges, which must be well attended to, to make room for the success of the project.

The potentials are the strengths or the advantages that Funsi has within its community that can aid the success of the project. The opportunities are the advantages that are found outside, but can aid the success of the project.

On the other hand constraints are the disadvantages or threats within the environment that can affect the project negatively while the challenges are those that are external. The external ones are not under the control of the project community.

Funsi has a relatively smaller population that is within the threshold of the STWS therefore there will no be pressure on the facility. The coverage is 181 people to a stand pipe which is far below the minimum of 300 people per stand pipe according to CWSA (2008).

According to the Water Board, private connections will be allowed two years after the handing over of the project. When the ban on private connection is lifted it will enable individuals who are interested in doing business with the water to do so. Just as we were told earlier, in Jirapa, a young man has been able to start a ‘pure water’ business venture using the STWS.

Considering the level of confidence the people have on the Management Board, if they eschew all negative practices of corruption, Funsi's STWP will be one of the most successful in the Upper West Region. The maintenance of the WATSAN committee as the communication organ of management is essential for the success and sustenance of the project.

The office accommodation is expected to house the Management Board and the Secretariat. It will be a point of call to the public who have complaints to make; it is also a symbol of community ownership that serves to unite the people and can encourage the people to initiate their own development projects instead of always waiting on government or the DA for everything.

More also the project is going to serve as a training ground for future leaders of the community. The training they are going to receive from CWSA, the DA and other organizations will prepare the people to be able to handle bigger projects. They will learn subjects like accounting, project management, auditing, planning, monitoring and evaluation, among others.

The standby generator is most likely going be used to power the system before the town is connected later.

During funerals a lot of water is wasted. This could be a time that the Water Board can generate a lot of money from the sale of water. Though, if the Board is not efficient it could also be a time when water is wasted. This can happen when relatives of the dead person are either in the management team or in the secretariat. When issues of this nature are not handled properly they can lead to the violation of all rules and regulations under the project.

All the respondents are sure that the contractor has done quality work on the project. The advantage is that it gives the project a longer lifespan and save the community money that would be used for repairs and maintenance.

The project received 100% funding from the World Bank unlike other communities who had to pay 5% of the project cost as community contribution. The initial contributions of the community could be used for preparation towards the take off of the project.

Being among the current phase of projects the Management Board of Funsi has the opportunity to learn from the operations of the previous ones for insight and ideas as to how to go about their STWS. At the stakeholder forum, it was an opportunity for the secretary of the Water Board to call on members to select 4 members of the Board to go to Jirapa and understudy their management for one week. This was to enable them to avoid mistakes that the others had made and adopt the best practices that worked well in their context.

Notwithstanding the advantages of the Funsi project, it is bedeviled with constraints and challenges. Bush fires, open defecation, indiscriminate burying of corpses, some socio-cultural practices and beliefs can lead to the failure of the project if they are not addressed.

The absence of a Bank is a major threat in the sense that monies collected from the sale of water will be kept by the accounts clerk. This could be dangerous; the money can be stolen. More also the temptation for the collectors to divert money into their private pockets could be high.

CHAPTER 6

SUMMARY OF RESEARCH FINDINGS, RECOMMENDATIONS, SUMMARY AND CONCLUTIONS

6. INTRODUCTION

The study looked at the expectations of the STWS in Funsi. The objectives include identifying the current water sources in Funsi; their successes and failures, to identify other STWS in the UWR and why they failed or succeeded, to assess the expectations of the current STWS in Funsi; during and after construction. It also identified the contribution of the people to the sustenance of the water project, the specific measures in the Funsi project that will make it successful and the socio cultural issues and their implication to the success of the STWS.

The research further examined the Management of the STWS, its weaknesses and strengths. To determine how sustainable the project will be the research went further to look at the socio cultural issues that can affect the smooth operation and success of the STWS. It was realized that the absence of a banking, electricity and communication facilities in Funsi is a threat to the success of the project.

This chapter presents the summary of the findings, the policy implications of the findings, recommendation, and conclusion.

6.1 SUMMARY OF FINDINGS

6.1:1 Sources of Water Supply in Funsi

There is inadequate supply of water in Funsi. The people depend on only 5 bore holes for domestic water needs. There is a dam whose water is not good for domestic use; therefore that water is used only for building purposes. There are 23 individually

owned hand dug wells which are able to yield water for 6 to 7 months in the year. During the lean season, when all the dug wells dry out, their owners fall back to the bore holes. The result of this is high level of pressure on the few bore holes leading to their frequent breakdowns.

The current water facilities are not able to supply the adequate water needs of the people for reasons that are considered as human and natural including the following: population increase, inadequate number and frequent breakdown of bore holes, lack of maintenance, wrong location of bore holes and the lack of alternative sources of water

As at February 2010 the number of STWS in the UWR stood at 17 including 5 of them that are still under construction. Out of the 17 STWS 70% of them are successful while the remaining 30% have failed for reasons considered as 'human'.

Despite the challenges in the release of mobilization, the contractor on the Funsi project used his own capital to start work on the project, as a result the Funsi project was 95% completed as at March 25th 2010.

6.2 EXPECTATIONS OF THE PROJECT DURING AND AFTER CONSTRUCTION

There is a very high expectation from the STWP. Right from the beginning of the project the expectation of the people had risen. The community expected to get jobs on the construction works but they did not have the requisite qualification. They also expected the timely completion of the project, a good relationship between the community and the workers on the project.

The people of Funsi expect that by the time the project is completed and handed over to the community, they will begin to enjoy adequate supply of water. The water project will provide employment to the people, reduce the time they spend on water collection, reduce water related conflicts and diseases, reduce poverty, serve as a prestige and honor to the community, increase the level of communication and interaction between community members and above all contribute to the general development of the town. Some of these expectations are base on the high unemployment among the youth of Funsi.

6.3 CARING FOR THE SUSTAINABILITY OF THE STWS

6.3:1 Managing the Small Town Water System (STWS) in Funsi

There is a Management Board instituted to manage the operation of the STWS in Funsi to ensure that it becomes sustainable. The Board is to replace the WATSAN committee that was set up to manage the bore holes.

Funsi's STWS is noted for its uniqueness with particular advantages that can lead to the success and sustenance of the project. These include the small population size of Funsi, the quality of work done by the contractor, the timeliness of the project, the provision of a standby generator, 'the pay as you fetch policy', the Management Board that is in place to manage the project, adequate number of pumping stations, the presence of NGOs, the status of Funsi as a district capital and the preview of the Board Members to the operation of STWS in other communities.

The office accommodation constructed for the management of the STWS is a symbol of community ownership. The willingness of the people to participate in the

management of the project is very high and the membership of the Water Board has the capacity to manage the system.

There are however few anticipated challenges that need to be addressed. These are some socio cultural practices and beliefs, bush burning, indiscriminate burying of corpses in the community and wrong citing of development facilities.

Such as the outmoded belief that, provision of water in households is the sole responsibility of women and the belief that water is not to be sold as was experienced in Lambussie should be completely eradicated through education. The success of the system depends on how much the community is able to generate to maintain it; this can only be achieved if people pay for the water.

There is no special consideration for the vulnerable and the socially disadvantaged in Funsi under the STWS. Family members of such people are supposed to take care of their water needs and so must pay for them. The rational for this decision was to eliminate all kinds of decisions that can give room to discrimination.

6. 7 RECOMMENDATIONS

Even though the STWS has the capacity to supply adequate water needs of the current water needs of Funsi, it is recommended that the DA should look for alternative sources of water. As Funsi is a newly created district capital, the possibility for the population to increase rapidly is very high. New departments, organizations and institutions are being set up; they come along with them other attractions, and people with new water needs. The senior high school that is currently under construction when completed will automatically add pressure to the STWS.

In reference to the Annual Action Plan of the Wa East District Assembly for 2011, it is their agenda to upgrade the district Health Centre to a hospital status, when that happens, the demand for water is going to increase. Patients within the district who use to seek health attention at Wa will now be coming to Funsi. These and many more will soon add pressure on the water supply.

The Water Board should manage the anxiety and high expectations of the people and take due advantage of that to implement the 'pay as you fetch' policy. The implementation should be preceded with education and sensitization on the need to patronize the policy. For instance, they should be made to know that just as it is a pride and prestige to have the project, it equally a disgrace and shame if they cannot sustain it. Institutions and religious organizations that are capable of paying for water should be considered for private connections immediately, since it will be difficult for them to buy larger quantities at the stand pipes.

It was identified that the negligence of the DA is a contributory factor to the failure of most STWS in the past, there fore it is advisable that the DA should pay adequate attention to the operation of the water system; the management, and the technical aspects. The DA should identify a schedule officer to the project who will be in charge of monitoring, reporting, and identifying training needs of staff and management of the Board.

Furthermore, the DA should identify and demarcate a place for cemetery in Funsi to encourage people to desist from indiscriminate burying of their corpses. In fact, this must be treated as a matter of urgency since it is not only a threat to the water project, but a threat to the health of the people.

Electricity is a component of the project since it is the main source of power. The government through the DA should make frantic efforts to hook the community to the national electricity grid to enable it function. The generator is only a supplement; to rely on it will lead to its immediate breakdown.

Assisting women to pay for water is very important to the success of the project, there fore; members of the community should be properly educated to assist them to pay for the water.

The DA, CWSA, the traditional authority, religious bodies and NGOs should embark on periodic joint campaigns in the community to assist the people to abandon socio cultural practices and beliefs that do not auger well for development. In our discussion it was noted that water related and other diseases such as guinea worm are associated with witchcraft instead of the lack of clean water and clean environment.

Presently, the social welfare system of the extended family in northern Ghana is gradually declining. There is therefore the need for the community to come out with a modality to assist disadvantaged people who are not lucky to enjoy the welfare of their families to access potable water.

It is recommended that the DA in collaboration with the Town and Country Planning Department should come out with a Town Plan for Funsi to guide the development and a8void haphazard development of the town. In connection with this the DA together with the community should begin thinking of expanding the water system in the near future to take care of the anticipated population explosion.

6.8 SUMMARY AND CONCLUSION

The study examined the expectations of the Small Town Water System (STWS) in Funsi during and after the construction and handing over; it looked at the current water source in Funsi and went further to look at the STWS in Upper West Region; their successes and failures. Lessons were learnt from the previous STWP that will enable the management of the Funsi project make theirs a success. aLSO the study examined the management of the Funsi STWS; the mechanisms and strategies that are put in place to make it a success and sustainable, the socio cultural issues that can affect the success and sustenance the project, the challenges, constraints and how to curb them.

The research findings were vividly discussed and appropriate recommendations are made to inform the Funsi community, the Wa East District Assembly, CWSA, the World Bank and other development partners on how to make the Funsi water project in particular a success, and to inform them on issues that can thwart or enhance the implementation of water projects in small towns, and development project in general.

The research unveiled issues that were not originally and directly captured under the mandate of the survey but are important to development.

The Funsi project is among the current phase of 5 projects. While over 70% of these project are said to be successful the rest were said to have failed. It will take the efforts of all stakeholders to make the project a success. The Funsi project has some unique characteristic that give it advantage over the other communities that benefited from the STWS in the region. The community has received 100% funding from the World Bank, the quality of work by the contractor, the office accommodation, the

provision of a standby generator, the hard working management team, the anxiety of the people, the timeliness of the project are positive factors that can lead to the success of the project.

The lack of a Bank, a cemetery, the activities of social misfits, negative socio cultural beliefs and practices are potential threats to the success and sustainability of the project. If these threats are eliminated then the STWS in Funsi will be a success.

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APPENDIX 1

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF PLANNING AND LAND ECONOMY
DEPARTMENT OF PLANNING

Questionnaire for heads of women, landlords and tertiary students

Introduction
Good Morning. I am a graduate student of Kmame Nkrumah University of Science and Technology, conducting a research on the Small Town Water Project in Funsi as part of my studies for the award of Msc Degree in Development Planning and Management. My name is ADAMS NANTOMAH. I would like to ask you questions about your perceptions of the on going Small Town Water Project in Funsi. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify individuals as the respondents.

Part 1: demographic characteristics of respondents

1. Sex a) Male ☐ b) Female ☐

2. Age ----------

3. Marital status a) single ☐ b) Married ☐ c) Widowed ☐ d) Divorced ☐

4. Educational level attained by respondent a) No education ☐
b) Primary school ☐ c) JHS ☐ d) SHS and beyond ☐

Part two: 2
1. Do you know all the sources of water in the community? a) Yes ☐. b) No ☐

2. How do you find the quantum water supply in the community?
a). adequate ☐ b). inadequate ☐ c). woefully inadequate ☐ d). in excess ☐

3. Is the water supply all year round? a) Yes ☐ b) No ☐

4. If Yes why, If No why?

5. What is your source of water during the lean season?
……
…….
6. How many months in a year do you enjoy adequate supply of water?
a) Less than 6 months ☐ b) 6 months ☐ c) 7 months ☐ d) 8 months ☐
others…….

7. What is the maximum walking distance to a water facility in the community?
a). 500 meters.☐ b). 600 meters.☐ c). More than 600 ☐ c) less than 500 ☐
others, specify……...

8. Are there established structures that are put in place to manage the Small Town Water System?
a) Yes ☐ b) No ☐

9. If yes describe these structures
……
……
……

10. Do you know similar Small Town Water Projects in the district and in the Upper West Region in general that Community Water and Sanitation Agency facilitated the provision?
a) Yes ☐ b) No ☐

11. If yes mention them.
……
……
……

12. If yes to question 10 will you describe the other STWP projects as successful?
a) Yes ☐ b) No ☐

13. If yes to question 10 what made them successful and if no why?
……
……

14. From the experiences you have had from previous projects what difference do you think the current project will make?
……
……

15. Do you think the community has the capacity to manage the project?
a) Yes ☐ b) No ☐

16. If yes, what kind of management style do you think should be adopted? Please elaborate
……
……
17. What difference will the management type make to the project?
……
……

18. What is peculiar /unique about this project?
……
……
19. What will you like to see in the project during the construction?
1……
2……

3……

20. What will you like to see after the construction?
1……
2……
3……

21. Has the community put in place structures to ensure sustainability? Yes ☐ No ☐

22. If Yes mention the structures and if No why
……
……

23. What measures has the community put in place to ensure that basic routine maintenance of the facility is done?
……
……

24. How will you generate revenue to manage and maintain the Water facility?
……
……

25. In the event of a conflict relating to the facility how will it be addressed?
……
……

26. Is there any difference between the current Water Project and the previous ones you mentioned earlier? a) Yes ☐ b) No ☐

27. If Yes what is the difference and if No why is there no difference?
……
……

28. Is there any approach adopted to raise funds for operation and maintenance?
A) Yes ☐ b) No. ☐

29. What mechanisms are put in place to take care of the attendants and care taker of the facility?
……
……

30. How will you describe the management of the current Water Project?
a). effective. ☐ b). ineffective ☐ c). very effective ☐ d) very poor ☐

31. Are there provisions in the management procedures to ensure that the poor and the socially disadvantage also benefit from the Water Project? a) Yes ☐ b) No ☐

32. If Yes explain the provisions and if no why?
……
……

33. Are there challenges in the construction of the facility? a) Yes ☐ b) No ☐

34. If Yes mention the challenges and if No why
……
……

35. Do you anticipate other challenges at the time when the Small Town Water system is completed and in use?
a) Yes ☐ b) No ☐

36. If Yes mention the anticipated challenges, if No why?
……
……

37. Can the potential problems be averted? a) Yes ☐ b) No ☐

38. If yes explain how we can avert the potential challenges, if No explain why.
……
……
……

39. Is it likely that the presence of the facility can lead to conflict in the community?
a) Yes ☐ b) No ☐

40. If Yes explain how the potential conflicts can be prevented, and if No why?
……
……

41. Will the project affect societal relations? a)Yes ☐ b) No ☐

42. If yes explain how, if No why?
……
……

43. Is the project likely to increase peace in the community? a) Yes ☐ b) No ☐

44. If Yes explain how and if No why?
……
……

45. Has the project influenced female-male relationship? a) Yes ☐ b) No ☐

46. If yes explain how and if No why
……
……

APPENDIX 2

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECNOLOGY
FACULTY OF PLANNING AND LAND ECONOMY
DEPARTMENT OF PLANNING

PART 1
Questionnaire for stakeholders of the STWS

Key informants/ Focus group Interview Guide: To determine the perceptions of the Small Town Water Project in Funsi.

Introduction:	I want to thank you for taking the time to meet with me today. I am a graduate student of Kwame Nkrumah University of Science and Technology, conducting a research on the Small Town Water Project in Funsi as part of my studies for the award of Msc Degree in Development Planning and Management. My name is ADAMS NANTOMAH. I would like to talk to you about your perceptions about the on going Small Town Water Project. Specifically, as the stake holders I would like to know your perception and others'. Our interaction is in two sessions; Part 1 A and Part 2. Part 1 is a discussion while part 2 is structured questions that require simple responses from you. With part 2 the questionnaire will be supplied to each stakeholder for your individual responses. Both sessions should take less than three hours. I will be recording and taking some notes during the session, so please speak clearly. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify individuals as the respondents. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time. Are there any questions about what I have just explained? Are you willing to participate in these discussions?

Questions	1. Identify Community Water facilities that were provided in the past in the district or elsewhere in the Upper West Region. 2. Mention why those projects succeeded or failed. What worked well? Please elaborate. 2. What are the existing water sources in Funsi. Please List them. Why are the existing sources not successfully supplying the required water needs of the community? 4. What do the people of Funsi want to see in the current project: During the construction…… After the handing over…….....? 5. What contribution will the people of Funsi make towards the success of the project? …… …… 6. After completion how will they take care of the project in order to ensure sustainability? Please elaborate …… …… 7. Describe in detail the management system under the project. …… …… 8. What is peculiar about the Funsi project? Bring out all the unique features as much as possible. a). the area of construction …….. b). the capacity of the project ……. c). the management style …… d). resource availability ……. Others (specify)…….. 9. What specific measures are in place in the current project to make it successful? List them …… …… 10. What are the socio cultural issues that can affect the successful implementation of the project? …… …… 11. Identify the specific measures put in place to address the socio-

	cultural issues mentioned in 12 above? …… …… 12. How will the project help to reduce poverty and unemployment in the community? …… …… 13. To sustain the project what specific roles will people in the community play; what role will women, men children the traditional authority play? …… …… 14. Is there any provision to ensure the fair representation of all groups of people in the management of the project? Explain …… …… 15. What kind of importance (economic, cultural etc.) does the Small Town Water Project hold for its users in Funsi, both men and women? Please elaborate. …… ……
Additional comments	Is there anything more any body would like to add? Thank you. Can we proceed to section B

APPENDIX 3

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECNOLOGY
FACULTY OF PLANNING AND LAND ECONOMY
DEPARTMENT OF PLANNING

Questionnaire for individual stakeholders of the STWS
Section B

1. Complete the following table on sources of water provision and their management in Funsi

Water facility type	Provider	Ownership	Management responsibility

Remarks……
……..……
……

2. Rate the current project in terms of its ability to enhance positive community relations. Tick or mark in the appropriate box.

Rating / Relationship	(1) Improved	(2) Very much improved	(3) Remained the same	(3) Not improved	(5) Worsened
1.Interaction between community members					
2. Participation in development activities.					
3. Involvement of women					
4. Involvement of children					
5. Self help initiatives					
6.Workers and community members					

Remarks……
……
……

3. Rate the project in terms of its ability to enhance gender relations.

Rating / Issue	(1) Increase	(2) Over increase	(3) Remain the same	(4) Decrease	(5) significantly decrease
1. Access to water by women					
2. Working hours of women					
3. Gender equity in facility management					
4. Lateness of girls to schools					
5. absenteeism of girls to school					

Remarks

……
……

4. Rate the project in terms of its ability to address Socio-cultural Issues

Rating / Issue	(1) Increase	(2) Significantly increased	(3) Remain the same	(4) Decreased	(5) significantly decreased
1. Land disputes					
2. Water related diseases					
3. Water related conflicts					
4. Leadership problems					
5. Unemployment					
6. Poverty					

Remarks……
……