UNIVERSITY OF CAPE COAST

NON-GOVERNMENTAL ORGANISATIONS, COMMUNITY PARTICIPATION AND RURAL DRINKING WATER SUPPLY IN THE GUSHEGU DISTRICT OF THE NORTHERN REGION

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of this has been presented for another degree in this University or elsewhere.

Candidate's Signature: …….. Date:……

Name: ……..

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

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ABSTRACT

The impetus for this study arose from the concern, which has grown in recent times over the positive and possible negative impact of the activities of Non Governmental Organisations (NGOs) on rural, community and national development. It was thus the overall aim of this study to examine the extent to which the activities of NGOs, in terms of the provision of water have been accepted by the communities in which they are working. Specifically, the study focused on the level of community participation and patronage of water supply systems, the socio- economic effect of the water system on their lives, and finally the extent to which the activities of the NGOs can be coordinated to improve services to the people in the Gushegu District.

Through the adoption of a descriptive research approach, it came to light that the District has a problem with drinking water supply. However, there are good prospects for increased provision of water in the district. NGOs identified Community Life Improvement Programme (CLIP) and World Vision Ghana (WVG) was involved in the provision of hand-dug wells, boreholes, as well as education on sanitary issues in the district.

In relation to the above findings, the study made a number of recommendations including sound investment strategy in this sector that calls for low-cost and maintainable solutions to achieve wide-scale coverage of the rural and peri-urban communities in developing countries.

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DEDICATION

To my parents Mr. and Mrs. Abudulai Al- Hassan with love and appreciation.

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ACRONYMS

CIDA - Canadian International Development Agency

CLIP - Community Life Improvement Programme

CWSA - Community Water and Sanitation Agency

DWST - District Water and Sanitation Team

GWCL - Ghana Water Company Limited

GWSC - Ghana Water and Sewerage Corporation

GWSD - Ghana Water and Sewerage Division

KVIP - Kumasi Ventilated Improved Pit

NCWSP - National Community Water and Sanitation Programme

NGOs - Non-Governmental Organisations

NORWASP - Northern Region Water and Sanitation Programme

O & M - Operation and Maintenance

SAs - Support Agencies

WASTAN -Water and Sanitation Committee

WVG -World Vision Ghana

WVI -World Vision International

CHAPTER ONE

INTRODUCTION

Background to the study

Development activities in Ghana over the past four decades have not rested only on the shoulders of the government. Non-governmental organisations, communities and individuals have all played their roles in the quest to bring improvement in the lives of the inhabitants of this country, especially those residing in rural communities.

Development activities including the provision of social infrastructure such as the construction of roads, provision of educational and health facilities by government, as well as activities of non-governmental organisations and communities are evident all over the country. Water is a very precious commodity without which life on the planet will cease. The access to regular safe water has great impact on the quality of people. Yet, for many in the developing world, gaining access to clean portable water can be a daily struggle.

In the Medium Term Development Plan (2002) of Gushegu District, although the water situation has improved since 1996, the potable water supply in the district is unbearably low. Currently the potable water coverage in the district stands at 46%. This translates to 57,517 out of the 125,430 people. That is 67813 people in the district are without potable water. The types of water systems in the district consist of pipe, boreholes and hand dug

wells. Between 1996 and 1998, the water system in Gushegu was rehabilitated under the Ghana Water and Sewerage Assistance. Rehabilitation of the system was designed to serve the whole population of the town. However, extension of pipelines has not been made to some sections of the town. Although in principle, the whole township is said to be covered, in practice, however the coverage is nominal.

A household baseline survey conducted in Zabzugu/Tatale District of the Northern Region of Ghana revealed that people fetch drinking water from various sources. In the raining season, most households fetch water from a river or stream (57.7%), a pond/dug out or dam (17.8%) or public standpipes (11.3%). In addition, in the dry season, most households rely on these water sources: a river or stream (53.8%), a pond/dug out or dam (12.5%) or a public pipe (21.3%). In all, 32.3% and 20.2% of the households respectively in the dry and the raining season have access to safe drinking water (i.e. water from a pipe, borehole or protected well), which corresponds with 32.5% and 20.2% of the population covered in the survey (Alcaab et al 1999). The issue of water supply in the rural communities more especially in the Northern Region needs very collaborative efforts from development agencies including Non-governmental organisations and District Assemblies to team up with the communities to work out for the supply of safe water. In the Ghana Poverty Reduction Strategy (NDPC, 2002), communities sampled in the north, among other needs, saw the need for potable water as crucial. Many development partners in collaboration with donor agencies in the area of water supply are working hard to break the vicious cycle of water scarcity and poor sanitation. In the Northern Region for instance, New Energy, under the auspices of Water

Aid, is engaged in the mechanisation of high yielding wells, extension of pipe borne water to peri-urban communities and the rehabilitation of existing wells and provision of latrines.

However, most rural communities in this country, despite the efforts of these NGOs, continue to bemoan the poor conditions especially in terms of the provision of water, the importance of which cannot be over-emphasised. What is really happening on the ground? Have development agencies including NGOs and District Assemblies played their roles effectively? The issue of development of social and economic infrastructure especially in rural communities may be complex than can be imagined. Rapid population growth in the rural sector without corresponding increase in resources has been a major problem.

Hard as these development agencies, including the NGOs and the District Assemblies try, very little is seen on the ground. This is because, for instance in the area of rural water supply most communities in Northern Ghana continue to suffer high guinea worm infestation despite the presence of the large concentration of NGOs in the country. On the other hand, it is also evident that apart from the inadequacy of clear-cut rural development strategies and inadequate financial resources, the effects of lack of coordination among various organisations should not be underestimated. World Vision Ghana Rural Water Project (1998) gave an example at Sibi Hilltop in the Nkwanta District in the Volta region; it is the world's greatest guinea worm endemic community, getting water to drink in the months of February to April is a most difficult endeavour. The stream and reservoir dry

up by the end of January and animals and people compete for the same water supply.

Coordination occurs when all organisations agree on priorities and strategies and share ideas and available resources. At the community level, there has been very little coordination among various agencies of development such as district assemblies, communities and NGOs. Though meetings are sometimes held, points for discussion fall short of coordination. In some instances, some district assemblies including the Gushegu District Assembly do not even have up-to-date information on activities of NGOs within their jurisdiction. Due to lack of coordination, social amenities have been concentrated in few communities to the detriment of others. All NGOs are expected to register with the relevant government ministry, but there is little control of their activities. If coordination is poor, how do we ensure who is doing what?

If people participate in execution of projects by contributing their ingenuity, skills and other untapped resources, more people can benefit, implementation is facilitated and the outcomes respond better to the needs and priorities of the people. It also ensures the sustainability of development outcomes. Participation builds up self-reliance and cooperative spirit in communities. It is a learning process whereby people become capable of identifying and dealing actively with their problems. Participation should be evident at all stages of the project involving problem identification, decision-making, and resource mobilisation, implementation, monitoring and evaluation as well as benefit distribution. Participation should involve all community members, leadership and opinion leaders, local organisations,

women's groups, project staff, project management, as well as district, regional and national authorities.

The establishment of Water and Sanitation Committees (WATSAN) is seen as a good way to manage water supply. Roles and responsibilities of the community and the support agency need to be well defined. A water committee is often a voluntary body, selected by the community to represent it in discussions and decision-making about all aspects of local water management. The committee is made up of a chairman, secretary, hygiene and sanitation person, pump caretaker and treasurer. The timing of the establishment of a water committee is flexible; often a water committee is established when collaborative work with the NGO/Agency to implement a water supply system begins.

The WATSAN committee ensures continued equitable access to water by structuring community discussions around the system management. The Committee is also responsible for organising contributions from community members and controlling the finances. It also promotes hygiene through education and sensitisation of the community and the effective use of water facilities (World Vision Ghana Rural Water Project, 1998).

The government acts as a facilitator, sets the policies and strategies that allow the demand-responsive approach to work, the government also provides a legal framework for access to water resources, asset ownership and registration of entities. Finally, government obtains internal and external funds to support the sector and set the conditions for efficient and cost-effective channelling of funds. In addition, the District Assemblies are expected to form District Water and Sanitation Teams (DWST) to plan, supervise and manage

all water and sanitation issues under their jurisdiction. The Gushegu District Assembly has formed the team comprising two men and a woman. They have received a number of training and equipment to boost their capabilities (World Vision Ghana Rural Water Project, 1998).

The role of service providers can be very complex, as they are responsible for a wide range of activities. Among these are dissemination of information, social intermediation, and training of communities, various consulting services, supervision of construction and the delivery of all goods, civil works and spare parts.

The ideal model for demand responsiveness differs from what is actually being done in many projects in that, on the one hand great progress is made at the community level, communities organise themselves to express desire for sustaining, operating and managing their services. In most cases, however, communities merely contribute funds rather than manage them; they do not procure materials or make hiring decisions, and have few options regarding who provides services in their community. And in some cases, they do not even supervise or sign off on the completed works that belong to them. The reasons for this may be that the supply agencies are still driving the implementation, deciding who and how services and goods are contracted, provided and procured. They may also continue to manage funds mainly because the contracts are between the government and the service provider. This situation is described as a partial model of demand responsiveness. This is contradictory because communities are expected to plan, own, manage and sustain their own facilities and not to exclude them from taking a major role in

project formulation and implementation (CWSA Conference, Water and Sanitation, May 1998).

Problem statement

Central governments have tended to usurp many functions that are better left to smaller agents and have neglected, or carried out poorly, functions that government could carry out better than these agents. For instance, in the area of water supply, the Ghana Water Company, the body responsible is beset with all manners of problems making it unable to fulfil its obligations to the majority of the inhabitants of this country. As a result, NGOs which are 'voluntary, private organisations that mobilise the enthusiasm and commitment of volunteers to the objective of the relief of suffering, and of development' (Streeten, 1987), are emerging on the scene.

In spite of this, it is not clear as to whether the operations of these organisations have actually been successful and it is in the light of these conjectures that the researcher intends to investigate the operations of two of these organisations involved with the provision of water. In particular, the concern is the extent to which the communities are involved in manning the provision of rural drinking water services especially in the Gushegu District, where the water table is very low. Participation is presumed to have positive effects on community capacity building for rural development. Therefore, the NGOs specifically identified for the purpose of this study are CLIP and WVG.

Objectives of the study

The overall aim of this study is to examine non-governmental organisations, community participation and rural drinking water supply in the Gushegu District of the Northern Region. Based on this, the following specific objectives are outlined:

- To identify the types and range of activities of CLIP and WVG in connection with the provision of water;
- To identify the extent to which these activities have been accepted by members of the beneficiary communities;
- To assess the level of community participation and patronage in the activities of these NGOs;
- To examine the effects of these activities on the lives of the people in the Gushegu District; and finally
- To make recommendations towards improving participation in rural water projects

Rationale for the study

The phenomenon of NGOs and the NGO community frequently amazes observers in its diversity and complexity. Even getting an accurate tally of the number of NGOs working in Ghana is difficult, let alone understanding their range of activities from the very local to the international level, from the religious to the secular, from the simple purpose to the all-purpose.

NGOs have played not only an increasingly significant part in development cooperation in past years but also an increasingly public one.

The framework in which NGOs operate is also less cumbersome than that of government bodies, making them better able to respond rapidly to emergencies. And in the field of development cooperation, where small is often perceived to be beautiful, the very limitations of NGO projects or programmes are frequently help rather than a hindrance. NGOs can undertake development on a human scale. For all their merits, NGOs are not the answer to everything in development: they cannot for example fill the role played by official donors in the funding of major infrastructural projects and not of course, should the official donors abdicate their responsibilities in favour of the NGOs (Annang, 1994).

Nonetheless, it is crucial to evaluate their roles in relation to the range of activities they perform as well as the impact they are making, whether positive or negative. This forms the rationale for which this study was initiated: to analyse, understand, assess, and evaluate the contribution of NGOs in the development of rural communities, and to ascertain the extent to which their efforts can be coordinated for the overall benefit of the communities in particular and the nation as a whole.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Historically speaking, NGOs appeared on the scene at the start of the 1960s. This was at a time when the colonial powers were no longer finding it easy imposing their views on their former dependent territories. The missionaries who had catered to the health and education of the "natives" during the colonial period were suddenly dependent on the sovereign authorities of the newly independent states. Voluntary Service Overseas was one of the responses to this and was intended to provide legal and financial basis enabling missionaries to continue their work (Mousa, 1995).

Moussa (1995), commenting on the experience and limitations of NGOs in West Africa, expressed that "At a time when a number of African states seem close to collapse, the need to strengthen NGOs takes on an even greater significance. But NGOs face numerous difficulties, in particular their dependence on external resources, limited skills and problems of adaptation".

Intermediary NGOs came into being between 1970 and 1985. In the wake of repeated droughts, problems had become so acute in Africa that the majority of Western NGOs, principally suppliers of food were obliged to take on the role, in the field, of food producers. They were involved in such a scale that many took on environmental restructuring work, either in association with recipient communities (village groups), or by requesting association from

those with local influence in the form of technical support. In this latter case, restructuring sometimes led to the creation of an African branch of the NGO (Mousa 1995).

Role of NGOs

A number of case studies of NGO projects have suggested that NGOs may have an important role to play in addressing environmental problems in developing countries. In recent years, growing concern with the environment and interest in "sustainable development" has coincided with an increased emphasis on involving NGOs in development efforts. Attention now is finding ways in which the strengths of NGOs can be utilised to foster sustainable development (Vivian, 1992).

Slayter (1992: 142) cites two interesting case studies of NGOs in resource management projects that had generally positive results and concludes: "Surely, such efforts, involving communities, NGOs and the public sector, can play an important role in Africa's development crisis. The challenge is there; the opportunities exist as well".

This type of case study analysis is important, as far as it demonstrates the range of opportunities and possibilities available to NGOs, and documents the factors affecting the outcome of particular projects. However, project case studies have been less useful in establishing how project success, on the micro-level, can be translated into development that is significant on the macro-level. The literature tends to assume or hope that micro-level experiences are generaliseable, but it rarely explores the mechanisms through

which project-oriented NGOs can transcend the spatial temporal limitations of the project approach.

In any specific situation, it is unlikely that all the opportunities and possibilities uncovered by the wealth of case study material on NGOs will actually be an option for either the public or the non-governmental sector. Thus, while the case study material has had an important role in illustrating the potential of NGO activities, questions that are more practical remain under what conditions lessons can be learn from them.

It will be argued that the usual NGO approach suffers from what is called the "magic bullet syndrome" (borrowing a phrase from popular medical literature, in which a 'magic bullet' is a simple agent that is able to identify, target and attack the simple root cause of disease). In other words, NGOs and those who support them tend to look for simple, neat solutions to development problems. The approach is counter productive, because its emphasis on finding 'magic bullet' and on replicating attractive success stories, fails to take into account the complexities of existing social and ecological systems (Vivian, 1992).

'Sustainable development' is generally defined, following the World Conference on Environment and Development (1987), as development, which meets the needs of the present generation without compromising the needs of future generations. The problems with the vagueness and generality of this definition have been much discussed (e.g. Buttel, et al 1991; Redcliff 1987), but sustainable development remains very much an operational phrase within the development literature. Although it takes on different meanings in different contexts, it usually implies a growth in productive activities, which

does not result in the irreversible depletion of conservation and economic development, 'sustainable development remains a useful phrase in spite of its limitations' (Vivian, 1992).

The issues addressed by the sustainable development paradigm include international problems such as ozone depletion and global warming, as well as national-level issues such as the destruction caused by resource extraction or industrial pollution. All of these are significant elements of the sustainable development problem.

Another important area of concern, however, is the resource depletion and destruction carried out by individuals on a small scale, which collectively have permanent destructive impacts and reduce productive capacities, especially in the rural sector. It is this type of dynamic, which is especially relevant to NGOs working in the third world. Such problems involve widespread, incremental over-exploitation or contamination of natural resources, resulting in gradual deforestation, degradation of soils, and depletion of marine and forest resources. The sustainable development paradigm supposes that these problems, by their very nature, require massive and widespread action on the part of individuals to halt environmental decline and to begin to degrade resources (Postel & Heise, 1988). This view of the environmental problem, combined with the fact that at least the proximate environmental problems are often locally based, suggests that local level action will be an important component of solutions to environmental problems (Ghai & Vivian, 1992).

Critique of NGOs

Writing a critique on the "Development impact of NGO activities, Ati and Ghaffar (1993) examine the results of, and the prospects for, the declared shift of NGOs from relief operations to development activities in the Red Sea Province of Eastern Sudan. According to them, although NGOs have been successful in conducting massive relief operations in the area, the article asserts that they have not yet and are not expected to achieve any tangible results on the development front. The reasons for this are the apparent misconception of development on the part of the NGOs' failure to recognise the difference in the methods, means and prerequisites for relief and for development and also, how to sustain any achieved 'development', since most NGOs operate in complete isolation from governmental and traditional Beja institutions (Ati & Ghaffar 1993).

NGOs and rural water supply in Ghana

Baah (1995a) describing water supply systems in Ghana indicated that a conscious attempt to develop piped water system in the country actually started in 1928 by the British Colonial Administration. The system, however, catered for only urban centres. After the country's independence in 1957, it began to serve as the main authority for the development, operation, maintenance and quality control of urban and rural drinking water supply as well as the country's sewerage disposal under the name "Ghana Water and Sewerage Corporation (GWSC)". GWSC however, gave little attention to rural drinking water supply. According to Baah (1995a), "GWSC policy

decisions which tend to be urban-biased are one of the factors that have robbed many rural communities of potable water supply (Baah, 1995a).

This centralised method of providing water to communities brought in its wake problems such as technological inappropriateness, incorrect location of water point, lack of social acceptability and unwillingness on the part of the communities to contribute towards the management and operation of facilities after installation through payment of water tariffs.

Agencies such as the World Bank, Danish International Development Agency (DANIDA), German Technical Corporation, Japan International Corporation Agency (JICA), United Nations Children's Fund and Canadian International Development Agency, have so far provided the bulk of the funding for the implementation of the rural community water programme. Others are United States Agency for International Development, United Nations Development Programme and WVI.

To ensure that SAs operate in conformity with policy, the GWSC (now Ghana Water Company Limited (GWCL) is proposing the common strategy. The CWSD will embark on a nationwide community needs assessment survey. This will enable her to know the nature of water problem facing each community. The GWSC will then study the nature of help that individual SAs can offer and based upon that SAs will be directed to communities that will need their assistance most. Thus, SAs cannot have the field day of selecting on their own where they want to work, which often leads to duplication of work. SAs under the partnership will also assist in building the capabilities of communities to manage their own affairs through training programmes, material development and technical assistance.

CWSA is supposed to be a facilitator according to the policy. This means that CWSA will not go into direct implementation of projects. The CWSA, therefore, finds a marriage with the private sector necessary. It will rely on the private sector for consultancy services, construction of facilities, promotion of the role of women, and supply of spare parts.

Beneficiary communities have not been left out in the partnership. Water supply must be demand-driven, so says the policy. In other words, communities who want water facilities must apply to their district assemblies.

They should also be ready to pay 5%-10% of the installation cost and must contribute in kind during construction. The community must also agree to form a WATSAN committee to see to daily management and operation of the facility. CWSA currently insists that this is the only way to get communities to feel the facility belongs to them and hence the need to sustain it (Baah, 1995b).

Another way to speed up the delivery of projects is to accept labour and land as part of community contributions. This removes the constraint of monetary contributions, which the community cannot afford (NDPC, 2002)

Community participation in water supply

Since 1995, the driving principle for the provision of rural water and sanitation services has shifted away from supply-led to what is now called demand responsive approach under the National Community Water and Sanitation Programme. With this, the community's role is to express demand for a water facility. In addition to this, the community also finances part of the services, manages project implementation, owns, operates, and manages rural

water and sanitation systems. The idea of who takes the decisions is very crucial since demand-driven or supply-led approach is relative not absolute. The degree to which a project is demand-driven depends on who makes the decision about the type and level of service and what range of decisions the users make, instead of having decisions made for them. A project is likely to be more demand oriented if the decision to participate is made locally and if decisions about which type and level of service to build, over what period, are based on user preferences. In addition, negotiated arrangements for cost - sharing based on transparent rules tend to be more demand- oriented; the greater proportion of costs the users pay, the more likely a project is to be demand- driven (World Vision Rural Water Project, 1998).

Operation and maintenance of water systems

Operation and Maintenance (O & M) are crucial to the successful management and sustainability of water supply and sanitation systems, whatever the level of technology, infrastructure and existing institutional framework. The benefits of effective O & M are clear, improved health and well-being and social, economic and financial advantages. Nevertheless, in the past the O & M of water supply system of small communities had been neglected in a great number of developing countries. It is estimated that 30-60 percent of existing water supply systems are not operational, having an important impact on the well-being of the population concerned. Either the wells have dried up or the water quality is unacceptable to the people.

Operation and Maintenance is not limited to the sole activity of a caretaker or a technician, it includes the activities of various actors at different

levels. It requires forward planning and technology transfer at all stages of the project cycle, from installation of plant and equipment, through operator training and handover to routine operation and upkeep, including purchasing of spare parts, repair procedures and financial management, as well as best practices in operating and maintaining the system.

Proper operation and maintenance have been subjected to many constraints in the past. Among the many factors that have been found to contribute to inadequate O & M procedures are:

- The low profit of O & M and lack of priority it is given by policy makers;
- Lack of clear policies, appropriate legal frameworks and a well-defined division of responsibilities to support operation and maintenance;
- Too much political interference, i.e., provision of free water, which makes sustainability difficult to achieve;
- Governments' and External Support Agencies' (ESAs) neglect of the maintenance of existing supplies in favour of focusing on capital construction and expansion;
- Poor management and overlapping responsibilities within projects and agencies, diverting funds away from operation and maintenance;
- Inappropriate design and technology choice, often caused by a lack of community involvement in project development;
- Inappropriate management at community level (Baah, 1995b).

Government and external support agencies, as well as communities, are increasingly concerned about the importance of integrating operation and maintenance components in the planning, implementation, management and monitoring of project activities. Sector professionals are also realising that O & M is not just a technical issue – it encompasses social, gender, economic, institutional, political, managerial and environmental aspects.

The following are some of the most noticeable trends, which reflect the changing attitude towards O & M, and are leading to increased sustainability of water supply and sanitation interventions. Water is increasingly being seen as an economic good, which implies that communities must pay for the water they use. Government, because of heavy financial burdens and efficiency problems, are gradually changing their role as provider of services to that of facilitator of processes. Communities are thus becoming involved in selecting the type of service they want and can afford, and have increasing responsibilities, not only in operation and maintenance of their water supply systems, but also in financial management of these systems. At all levels, more integrated O & M strategies are being developed, in which the concerns of safe water, sanitation, hygiene education and waste disposal are tackled simultaneously.

Women, as the principal users of (rural) water supplies, are playing an increasingly prominent role in management and maintenance activities. Greater attention is being given to appropriate and affordable technology, with easy maintenance, in – country manufacturing, durability, standardisation and low capital and recurrent costs being the chief criteria. Finally, donor and national policies are showing evidence of due attention to O & M, with water

tariff adjustments and revenue allocations in support of O & M by national governments. Donors are also adopting well-defined policies to ensure that O & M is a central concern of the projects they support, and promotion of measures to assess O & M problems and solution (Baah, 1995b).

The Village Level Operation and Management of Maintenance concept was introduced in 1991 at the beginning of the International Drinking Water Supply and Sanitation Decade to address the fundamental issues that had hindered the sustainability of community water supply systems in the past. The concept seeks the empowerment of user communities to own and manage their own systems to ensure long-term sustainability. By this approach, beneficiary communities are allowed to take informed decisions for themselves at all stages of the project cycle. It is characterised by the following elements:

- Community acceptance to own and manage pumps
- Community choice of when to service pumps
- Community choice of who will service pumps
- Direct payment to repairers by the community (Baah, 1995b).

From the literature review, one gathers that agencies like DANIDA, JICA and WVI have so far provided the bulk of funding for the implementation of rural water program in the country and CWSA a division under GWC is to ensure that about 80% of the rural population has access to potable water between 1995 -2009. The Government has a policy on water sector that lays emphasis on community participation. Water supply is now demand-driven, communities must apply to the District Assembly, be ready to pay 5%-10% of the installation cost and contribute in kind during

construction. The 5%-10% of installation cost depends on the type of water facility to provide. For a borehole, the cost would be higher than a HDW because of the materials and equipments used. This policy would help in the research to determine whether communities participate in the water supply system, or it is only on paper.

CHAPTER THREE

METHODOLOGY

Introduction

In every research, there is the need to employ a research method, which would ensure that the data gathered are reliable and valid. To build and strengthen the reliability and validity of the data, therefore this study has employed a methodology where information was acquired through observation and questionnaires. Questionnaires were used extensively because it is an efficient way of collecting statistically data.

Study population

The District was chosen because of the enormous problem of water supply, especially in the rural areas. As more than 50% of the population in Gushegu is without water (Medium Term Development Plan, 2002), the effect of lack of water on health and productivity is great. People in the district, rush for water of doubtful quality in a typical lean season. The distance people have to walk to fetch water and the man-hours wasted in the search affect production.

Research sample

The research sample was selected using purposive or judgemental sampling since it enables you to use your judgement to select cases which will

best enable you to answer your research question(s) and meet your objectives (Saunders et al., 1997). Therefore, in order for the research objective to be attained, the sample for the study was all adults and children of 10 years and above. The reason for the inclusion of children was mainly that children are very active in drawing water from whatever source there was for domestic use.

Selection of study communities

With an overall population of 125,430 people, the district can be divided into rural and urban with the majority living in the rural areas accounting for 70% of the district. This study concentrates on the 70% living in the rural areas. Hundred people were drawn from four communities; Kpugi, Zamashegu, Nagnani and Kobilsung were selected in Gushegu district.

Selection of respondents

Again, using purposive sampling, 25 respondents were selected from each community making a total of 100 respondents made up 35 males and 65 females. More women were purposely chosen because they are active in collecting water for domestic purposes than men. The involvement of children above 10 years was because at the community level children are actively involved in daily activities in the household.

Data collection techniques

In the absence of a single effective technique to collect rural based data, different but complementary techniques were used to allow for easy cross-checking of the data for consistency. Both primary data and secondary

data were therefore used. Semi-structured, open-ended questionnaires were used as questionnaire for gathering primary data from the community. Both female (65) and male respondents (35) were interviewed in order to ensure that views gathered were balanced.

Participant observations stem from attending a WATSAN Committee meeting in two of the communities, Kpugi and Nagnani. The researcher interacted with both women and men at the committee and community levels to collect first hand data. Also secondary data was taken from sources such as journals, books, reports and research findings relating to the subject matter were obtained. Data was also gathered from CLIP, WVG, Ghana Water Company. In addition, the files of Gushegu District Assembly were consulted for data.

Data analysis

The research results have been organized in a logical manner and written up in a narrative style. This is supported by statistically quantified data in the form of tables and percentage distributions.

Limitations of the study

A number of constraints were encountered in conducting the study. The splitting up of the district into Gushegu and Karaga districts in 2004 hindered the research as the population for the Gushegu district of this study was based on data from Gushegu/Karaga district. Also, some of the data was outmoded, especially from certain government organisations and agencies.

Language barrier was another constraint to study. However, these setbacks did not affect the data collection.

In order to overcome these problems, the researcher employed the services of an interpreter who assisted in translating the interview guide to the respondents. The communities that the researcher sampled for the study were all in the Gushegu district so the splitting up of the district did not affect the data collection. But the data on socio-demographic profile was data from Gushegu/Karaga district.

Conclusion

The myriad of problems not withstanding the methodology adopted by the study was by far, the most appropriate research approach especially in communities where most of the people were non-literate. It is therefore hoped that the research findings are of a true picture of what pertains on the ground.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the data gathered from the field. The aim of this section is to give a description of certain characteristics of the data obtained and examine certain unique characteristics of the data. It begins with an analysis of the data obtained through questionnaire answered by the CLIP and WVG staff. The presentation begins with discussions and findings from CLIP, followed by WVG. It then proceeds with the interpretation of the data obtained from community members through the questionnaire survey.

CLIP and rural water supply

In line with the study objectives, namely to examine the role of NGOs, how their policies influence the provision and management of drinking water schemes and to identify the types and range of their activities this section seeks to clarify these issues. CLIP started the first phase of providing water to the district in January 2002 and ended in December 2004. According to CLIP, the district was chosen because it was one of the deprived districts especially in terms of good water. This led to the district being an endemic area for guinea worm because of lack of potable water, especially during the dry season when water is scarce and the available water sources is of poor quality. This has resulted in the district being among the top five districts in Ghana

with guinea worm diseases and a major contributory factor to the underdevelopment of district.

In the provision of rural water supply, CLIP was supposed to construct 20 HDWs fitted with hand pumps and rehabilitate broken down boreholes and HDWs within the three and half years. WASTAN Committees were also to be formed and trained. This was intended to ease the burden of work for women and girls and to improve the standard of healthcare delivery for the entire local community. The objectives of CLIP in rural water supply was to improve water management, increase knowledge about water related health issues, hygiene and sanitation and improve water supply in CLIP beneficiary communities in Yendi and Gushegu/Karaga districts by 2004.

The main objectives in rural water supply was to reduce the incidence of water related diseases by supplying potable water to communities that did not have access to potable water and also, to improve sanitation at the community's level.

In planning for the provision of rural water supply, the process starts by the District Assembly submitting the list of communities who had applied for water facilities. After this process, the first visit to the community was to introduce the service provider and to animate the community on the processes involved in the provision of water. During this stage the roles and responsibilities of the community and the service provider was discussed. The 5% contribution from the community was discussed and they are assisted to form the WASTAN Committee. This was to ensure that the community was ready for the facility and for the sustainability of the facility. Sitting of the water facility was done in consultation with the community members. The

beneficiary community supported by providing labour (unskilled), food and accommodation for the construction team. The CWSA, DWST and GWCL provide services for water quality analysis.

A calculated 5% of the project cost was contributed by the community towards the construction of the water facility. Some communities prepare for the water facility by contributing and opening an account for the facility before applying for it whiles others started contributing when construction started. This confirms the responses from the communities that they contributed financially for water facility.

In planning for the provision of water supply, formal and informal meetings are held between CLIP and the DWST in order to exchange experiences and coordinate activities. Expertise is also drawn from CWSA in the implementation of the activities of the water sector. CLIP participates in CWSA's quarterly coordination and exchange seminars for all agencies and organisations involved in water supply in Northern Region.

Sustainability of rural water supply

The issue of sustainability is a crucial element to water supply facilities without which basis for the efforts of NGOs will be in vain. The issue then is to what extent is the water facility system sustainable? Was community involvement an important element in the maintenance of the water facilities? In answer to these questions, WATSAN Committees are put in place to oversee, operate and manage the facility for sustainability. They are therefore trained to take up these responsibilities. This training was done in collaboration with the DWST. The WATSAN Committee was made up of

seven members, it was most preferred that women should be more than the men in the committee because they are the drawers of water in the society. It was made up of a chairman, secretary, organiser, pump caretaker, treasurer and hygiene and sanitation person. Some of the activities carried out were to mobilise the community to contribute financially, repair and maintain water facility and enforce hygiene practices in the community and look for more water facilities if access to potable water supply was inadequate. The NGO gave a set of tools to the WASTAN Committee for maintenance and repairs of the HDW.

In addition, there is an area mechanic in the district trained by CWSA for WASTAN Committees to report to when a major problem develops. Communities are told where to go for help if the need arises. The Gushegu District Assembly has stated its willingness to take on the financial responsibilities of maintenance of the water facilities when they are handed over to the communities. The willingness of the District Assembly to take over responsibilities for the facilities can lead to majority of the facilities not being maintained in future as funding for District Assemblies activities are inadequate. In a more long-term perspective, the overall challenges of sustainability seem to be the key factor of the degree of donor support for the NGOs and their willingness to devolve the responsibility for drinking water to the community.

In order for the facility to be sustained, CLIP encouraged the communities to contribute financially and lodge it in their account at the bank. CLIP said that NIRA AF 85 which is a pipe cost ¢7,707,530 for 15m depth well and it could break down any time and if it happens at a time they cannot

contribute then they would go back to water sources which would not be potable. They are also advised to cultivate a community farm in order to use its proceeds to finance maintenance of the HDW. For now, CLIP assists the communities in repairing the water facilities since parts are expensive and sometimes difficult to obtain.

CLIP said it cooperated with other agencies and organisations within the field of water supply. It did this by inviting stakeholders to workshops on water supply and participated in workshops to share experiences. An officer from CLIP is the secretary to Gushegu Karaga Water and Sanitation Network.

Participation of communities in rural drinking water supply

NGOs are typically described as working within rural communities, ascertaining local needs and preferences, and involving their target population in the planning of their activities. This perception was supported by the responses to one of the questions on the NGO survey. In response to the question, 'How are projects initiated?' most of the responses was "By the people", and "at village level". Those who discussed this question in more detail explained that community groups identified their needs, sometime with the help of the NGO, and then requested support from the NGO. Decision was then taken at a more central level regarding whether the NGO would provide the support requested.

A very large amount of staff time was involved in stimulating community organisation and discussion, tailoring water projects to the needs of various groups, manoeuvring around political obstacles, and providing the support services necessary for project success. CLIP was able to provide such

an intensive, long-term community interaction because the staff devoted their time to two or three communities at a time. More commonly, however, the survey discovered that NGOs attempting to operate in a participatory manner face severe operational constraints such as shortage of field-based staff (paid or voluntary) to carry out their entire field operations.

Field-based staff were defined as NGO workers paid or unpaid, who resided outside of the cities where the national or regional headquarters of the NGOs were located. In the case of CLIP, it had workers living at the district level, and had mechanisms that enabled these workers to transmit information and requests to headquarters. For most NGO beneficiaries to participate in NGO decision making in a meaningful way, a large initial logistical hurdle had to be overcome. It was noted that in some cases there were very few channels through which people living in isolated rural areas could make their wishes known to the NGO. CLIP had overcome this obstacle by sharing field duties among staff. In other cases, however, there was no indication of the mechanisms through which "bottom up" planning could occur.

How CLIP relates with communities

The type of relationship that develops between a development agency and a beneficiary community is very critical for the success of any initiative. It was in this light that the CLIP was expected to disclose this crucial aspect of their work. CLIP said it had a good relationship with the communities it worked in because of the teamwork it built with them from the onset. People had felt the organisation's presence because applications had been coming from other surrounding areas of the communities that had benefited from their

projects. In addition, the list of communities from the District Assembly for communities that needed water kept on increasing. However, from the responses of the communities even though they had felt their presence a lot more needed to be done as 46% said they still experience water borne diseases. This could also be due to the low water table in the District.

Future prospects of CLIP in water supply in Gushegu

The future prospect in water supply was to improve the health status of people as many communities were being covered, a substantial reduction in the rate of water related diseases leading to people especially women some ample time to go about their economic activities. The community members confirmed this in the community questionnaire in a question posed about "changes the water facility has brought in the community", 40% said it had led to an increase in production while 30% said their health and sanitation problems had improved.

CLIP said that it would continue with the provision of water facilities as long as it gets support from donors and added that they had plans for the construction of rain harvesting tanks for schools in the communities in future.

WVG and rural water supply

WVG Gushegu Area Development Programme started in 1998 on a fifteen year programme. It was designed with the full participation of the District Assembly, the communities, traditional rulers, churches and other NGOs operating in the District. WVG sought to achieve a healthy and productive life for all 127,501 inhabitants of the district with enhanced

opportunities for education and human resource development, water and sanitation improvement and food security among other issues.

In rural water supply, WVG was to provide 100 boreholes and 300 KVIPs including hygiene and sanitation for 60 communities in the district by September 2013. Twenty –five bags of cement and one tipper truck full of sea sand was the calculated 5% that WVG demanded from the communities in terms of financial contributions. Pre-drilling was done in consultation with the community, the community supports with labour and food for the construction team.

Sustainability of rural water supply

For sustainability, WVG educated the whole community and then organised and trained volunteers who made up the WATSAN committee. WVG provided tools for the maintenance of the facility for each community but for communities that were near each other, a set of tools were given for the two WATSAN committees to share and to help each other.

Findings on background characteristics of community respondents

A total number of 100 respondents were interviewed in the Gushegu District with the help of a questionnaire. This section seeks to examine socio-demographic of these respondents, in terms of their sex, age distribution, and marital status. Of the respondents interviewed for the purposes of the study, thirty-five (35%) were male and sixty-five (65%) female.

As discussed in the literature women are more active in collecting water for domestic and other purposes than men. Therefore, the involvement

of more women than men for the purposes of this research is not a coincidence as this is intended to elicit more information about accessibility to water resources, its use and the impact of water related projects on community members. Furthermore, women in rural households in Ghana are expected to experience and reflect more than men issues pertaining to accessibility to water resources and its impact thereof on their livelihoods.

Slowly there has also been a focus on the fact that women and men have different roles, and a 'gender' approach has been integrated in development discourse and it is a crucial element in the selection of any sample for such purposes. If role differentiation continues to be unrecognised, projects would continue to be geared towards inappropriate groups. For example, if women have main responsibility e.g. for fetching water for domestic consumption, but the project targets more men, training would be irrelevant, many problems would remain unidentified and the project in turn will fail. It is therefore important that agencies promoting development, government, NGOs and private institutions integrate gender and understand the concept to strengthen women's role in every early phase of project planning and at all phases of the project cycle especially in water related projects. Women should play an important role in the discussion regarding water, as water collection is a time - consuming domestic chores undertaken by women in Ghana. Since women are the main users of water schemes, lack of participation of this group has led to inappropriate systems that do not benefit the women. Gender equality is necessary for a more equitable sharing of the resources, and hence an integral part of a more sustainable development.

Characteristics of respondents

Hundred people were drawn from four communities; Kpugi, Zamashegu, Nagnani and Kobilsung were selected in Gushegu district. Each community had 25 respondents making a total of 100 respondents made up 35 males and 65 females. More women were purposely chosen because they are active in collecting water for domestic purposes than men. The involvement of children above 10 years was because at the community level children are actively involved in daily activities in the household.

In Table 1, the majority of respondents fell within the age group of 31-40 (31%). Respondents from 10-20 years had 25% and ages from 21-30 had 22 percent.

Table 1: Age of respondents

Age Group	Frequency	Percentage
10 – 20	25	25.0
21 - 30	22	22.0
31 – 40	31	31.0
41 – 50	10	10.0
51 – 60	12	12.0
Total	100	100.0

Source: Field Survey 2004

In Table 2, 60% of the respondents were married. The rest were single, widowed or divorced with the exception of two non-responses.

Table 2: Marital status of respondents

Marital Status	Frequency	Percentage
Married	60	60.0
Single	31	31.0
Widowed	5	5.0
Divorced	2	2.0
No response	2	2.0
Total	100	100.0

Source: Field Survey 2004

Water supply in the communities

From Table 3, the total number of responses was more than 100 to the answer of sources of water supply because of multiple responses. Some communities had more than one source of water supply; for example, harvested rainwater can be another source of water to a community that had a borehole. The technology choices open to planners of community water supply programmes are best characterised by the water points they provide: hand pumps; standpipes; (i.e. public taps); and others such as boreholes and dams. Costs and potential benefits differ for each option, and technology choice cannot be realistically made based on cost alone. From the survey in Table 3, the majority of the respondents rely on stream (87%) and rain (59%) that is not reliable all year round sources of water. While the rainy season is short and far between, the streams dry up gradually in the course of the dry season making life indeed precarious for inhabitants of these communities. It

is to shed more light on this situation that respondents were asked whether they had regular supply of water throughout the year.

Table 3: Sources of water supply

Source	Frequency	Percentage
Stream	87	38.0
Rain	59	27.0
Borehole	37	16.0
Hand Dug Well	34	15.0
Dam	9	4.0
Total	226	100.0

Note: Total responses are more than total respondents due to multiple responses.

Source: Field Survey 2004

As to regular water supply throughout the year, 17% said yes and 83% said they did not have regular supply (Table 4). Because of the sources of water supply like rain, river, dam and stream that the community relied on, there was bound to be irregular water supply because they tend to dry up in the dry season. About boreholes and HDWs some of then had low yield in the dry season. Another reason was that the communities do not repair parts of the facility that needed repairs. The respondents from Kpugi community would not have regular water because of the low water table of the area.

Table 4: Access to regular supply of water throughout the year

Responses	Frequency	Percentage
Yes	17	17.0
No	83	83.0
Total	100	100.0

Source: Field Survey 2004

Table 5 indicates that 54% of the respondents did not have access to safe drinking water. This was because lack of culture of maintenance, low yield of boreholes and HDWs and growth in population led to a high demand on the facility and this led to the reliance on other untreated sources like streams and dams. The following section seeks to shed more light on the problem of insufficient and unstable water supply in the community.

Table 5: Access to safe drinking water

Responses	Frequency	Percentage
Yes	46	46.0
No	54	54.0
Total	100	100.0

Source: Field Survey 2004

Findings on insufficient and unstable water supply

The access to potable water is inadequate for most inhabitants of the Northern Region especially towards the end of the dry season, the water scarcity and poor water quality in the remaining water sources was a big problem. The inadequate water supply was a contributory factor to financial

underdevelopment in the region, and it causes a number of serious water related diseases e.g. guinea worm., which are a burden on northern Ghana, In many communities, there were no HDWs, boreholes or dams, and women and girls had to walk up to 10km for water in the dry season. As women and girls are responsible for the water supply in the household, the present inadequate supply was a burden on them; it severely limits their possibilities for studying and carrying out income generating activities. The inadequate water supply was a result of scarcity of ample and clean water as a natural resource. The ground-water level is very low, and it is difficult to get to because of the geological structure of the area. It is therefore difficult and expensive to make HDWs in the area. A large proportion of the existing few HDWs were destroyed during the conflict in 1994/95 Dagomba and Komkomba conflict.

There was also the problem of ignorance about water management and water related health issues. In a situation of such severe water scarcity combined with very low level of education and poor community level organisation for development, people obviously had inadequate knowledge about water management and water related health threats. Earlier attempts by the government and other agencies to enlighten people on these issues had generally been short-lived and inadequate. The ignorance about these issues means that water sources and water reservoirs in the individual households are often mismanaged.

To the question about activities of NGOs in the study area, 71% of the respondents said the NGOs provided the community with water facility and 11% said sanitation (Table 6). Integrating hygiene and sanitation in water project is among the objectives of CWSA so the NGO provides KVIPs,

education and sensitisation on good hygiene practice. From Table 6, it could be seen that although the NGOs engaged in other activities such as provision food security and micro credit the provision of water was the main programme on their agenda; 71% of the respondents expressed this view.

Table 6: The activities of NGOs in study area

Activities of NGO	Frequency	Percentage
Water facility	71	71.0
Micro Credit	11	11.0
Sanitation	11	11.0
Food Security	5	5. 0
Education	2	2.0
Total	100	100.0

Source: Field Survey 2004

Rural water systems

Choice from technology options in the provision of rural water was not only based on a comparison of their benefits and costs, but also on the feasibility of providing the resources required to sustain the chosen technology: financial, physical and organisational. It was based on these assertions that respondents were asked to mention the type of water facility provided by the NGO. On the type of facility provided by the NGOs, Table 7 indicates that the NGOs provided boreholes and HDWs. These are obviously safe water sources and its relationship with the issue of access cannot be overestimated. In northern Ghana, the dry season may lead to increasing time

for water collection. The average family requires three to four garwa (a local pan found in the north used for fetching water), and it often requires 30 minutes to 3 hours to collect one garwa. In some families the task of collecting water is shared by many members of the family while in others, the mother or other female members are exclusively responsible.

Table 7: Type of water facility provided by NGO

Type	Frequency	Percentage
Borehole	50	50.0
Hand dug well	50	50.0
Total	100	100.0

Source: Field Survey 2004

Demand for water supply

On the mode of entry of the NGOs into the community, 31% said it was through community's initiative whiles 14% said it was the organisation concerned initiative as seen in Table 10. However, the District Assembly was not left out as 55% said it was through them that the NGO came to help in the community. Community Invitation of 31% showed that from the beginning of the project, the community was involved. The inability to provide water for domestic purposes results from an overall water shortage in the Gushegu district, as the district is relatively poor in water resources. The available sources are sometimes under-utilised and unevenly distributed because of geography, settlement patterns, and population density. Another factor is that community members have limited resources to use on water provision. In

addition, as population increases and changes in lifestyle demand a more intensive use of water, there was an increasing pressure on existing supplies.

Table 8: Mode of NGO entry into the community

Mode	Frequency	Percentage
Community Invitation	31	31.0
District Assembly Invitation	55	55.0
Organisation's Initiative	14	14.0
Total	100	100.0

Source: Field Survey 2004

Level of communities satisfaction with NGOs

On the question whether they were satisfied with the conduct of the NGO involved 83% responded yes while 17% said no (Table 9).

Table 9: Satisfaction with the conduct of the NGOs involved

Responses	Frequency	Percentage
Yes	83	83.0
No	17	17.0
Total	100	100.0

Source: Field Survey 2004

Asked to give reason for their "satisfaction" or "dissatisfaction" with NGOs, 37% said it was because of their good human relations and which strengthen the relationship between the community and the NGO (Table 10). This was due to the participation from both parties. 11% said the NGO paid

them regular visits and 35% said they did an excellent work. However, 17% were not satisfied with the conduct of the NGOs because their water problem had not been solved and they were still relying on other sources, for example rain (Table 10). The people themselves will have a higher interest in the success of the project if it has been through their own efforts. A feeling of genuine ownership of the system and structures will be more easily imparted, and it will not the risk of being regarded as something 'handed down' to them by NGOs.

Table 10: **Reasons for communities satisfaction with NGOs**

Reasons	Frequency	Percentage
Good human relations	37	37.0
Regular visits	11	11.0
Excellent work done	33	33.0
Water problem is not solved.	17	17.0
Total	100	100.0

Source: Field Survey 2004

Community participation in water supply

As depicted in Table 11, 91% of the respondents reported that the community contributed financially towards the provision of the water facility while 9% said they did not contribute. This 9% covers children who did not contribute financially towards the water facility as they said they were financially not capable. Inadequate maintenance funding has been one factor accounting for the lack of sustainability of many rural water projects in the

Third World (Kendie, 1994) Free or highly subsidised water policies have had the negative consequence for operational sustainability. In Ghana, this factor is partly responsible for the inadequate maintenance of existing water systems. Thus, it may be claimed unanimously that subsidies should be employed with much care, and that more efforts should be directed at increasing the rate of cost recovery of projects. In terms of the data from the Gushegu District, it was observed that for cost recovery to be promoted, people must participate in the projects.

Only by participating actively will they feel that they own the scheme, and have an interest in looking after it and promoting its efficiency. However, for commitment from community members, participation must be institutionalised and its continued viability will depend largely on the ability and will to recover costs. Obviously, this ability will depend on the degree of benefits that the members derive from the scheme, as well as its quality. This will determine how much they are willing to invest in its continued operation. For schemes such as the rural water projects provided by NGOs such as WVG and CLIP, the advantages are so obvious in terms of reduction in water borne diseases, improved quality of life, increased agricultural outputs and reduced migration; the incentives for people to uphold these are thus very strong.

Table 11: Financial contribution of community

Financial contribution	Frequency	Percentage
Yes	91	91.0
No	9	9.0
Total	100	100.0

Source: Field Survey 2004

To the question of how much they contributed financially, most of the respondents (50%) said the community contributed ¢3,000,000 towards the provision of the water facility (Table 12), this would be communities with the boreholes. This amount of ¢3,000,000 was not cash that was given to the NGO but money to buy one tipper truck of sand and 25 bags of cement. This means that the amount expected from communities for borehole is not fixed as it depended on prices of materials they are expected to provide during that period. 41% of the respondents said they contributed ¢500,000 for the provision of HDW (Table 12). According to CLIP, the ¢500,000 contribution from the community is fixed for the programme currently running but might be reviewed in the subsequent phase. The NGOs said that because of the geological structure of the district it is difficult and expensive to construct HDWs or boreholes in the district.

In the planning of rural water drinking services, not enough attention has been paid to determining how much beneficiaries are willing and able to pay towards meeting operational and maintenance costs. This situation has made it indeed very difficult for water agencies such as WVG and CLIP to set adequate tariff levels. In the process, not enough revenue was generated to effectively maintain the new water systems. Expansion to meet the needs of

the growing populations had been agonisingly slow. One factor responsible for this is that women are largely responsible for tariff payments, and thus the ability to pay is low. It is in the light of this fact that educational programmes aimed at improving the utilisation and sustainability of rural drinking water services must be directed at involving men in cost-recovery. The willingness to pay for water systems in rural Northern Ghana is seasonal. Many more people are willing to pay in the dry season than in the wet season. The harvesting of various crops in the dry season raises the ability and willingness to pay. Sustaining rural drinking water services will require novel approaches to cost recovery such as focusing on understanding rural work patterns, targeting collections in the season when the ability to pay is high and motivating men to become sufficiently involved in drinking water activities (Kendie, 1994).

Table 12: Amount contributed by communities

Amount (¢)	Frequency	Percentage
3,000,000	50	50.0
500,000	41	41.0
No response	9	9.0
Total	100	100.0

Source: Field Survey 2004

An inquiry into whether a community contributed monthly or yearly, indicated that 76% contributed yearly while 13% said they contributed instantly when the demand arose whiles 2% said they contributed monthly (Table 13).

Table 13: Duration of financial contributions from community members

Duration	Frequency	Percentage
Yearly	76	76.0
Instantly	13	13.0
Monthly	2	2.0
No response	9	9.0
Total	100	100.0

Source: Field Survey 2004

When the respondents were further asked that, apart from the financial aspects, what were the other forms of contributions they made, 72% said communal labour and 28% pointed to accommodation for the workers (Table 14). This shows that communities participate in the supply of water. The issues of the level of participation in the work of NGOs and empowerment are critical elements in the sustainability of NGO projects in rural areas.

Table 14: Other forms of community contribution

Other forms	Frequency	Percentage
Communal labour	72	72.0
Accommodation for workers	15	15.0
No response	13	13.0
Total	100	100.0

Source: Field Survey 2004

Formation of WATSAN committee

The functions of the Community Water and Sanitation as already spelt out, and its importance to the sustainability of any water facility in any community cannot be overemphasised. It was in this regard that an attempt was made to find out whether the community had Water and Sanitation Committee and 99% of the respondents said yes (Table 15). Almost all respondents knew of the existence of such committees in their various communities, it was only 1% of the respondents who did not know of the existence of one. This is indeed another critical element in terms of the sustainability of such efforts. When further asked about the role of the committee, 59% of the respondents said they maintain and supervise the water source. 40% said they educate, mobilise fund and organise initiatives. The responses are depicted in Table 16. This training is done with resource persons from DWST and Environmental Health Unit (EHU). The DWST and EHU help the NGOs in educating, sharing information, supervising and monitoring the activities of the WATSAN Committees.

Table 15: Whether communities have an existing water and sanitation committee

Responses	Frequency	Percentage
Yes	99	99.0
No	1	1.0
Total	100	100.0

Source: Field Survey 2004

Table 16: Role of WATSAN committee

Role	Frequency	Percentage
Maintain and supervise water facility	59	59.0
Education and Mobilisation of funds to take initiatives.	40	40.0
No response	1	1.0
Total	100	100.0

Source: Field Survey 2004

Eighty-four of the respondents said that the water facility was not adequate in the community (Table 17). When asked to suggest ways of improving water supply facility, 39% said more water facilities should be provided while 13% said the supply of water would improve if they maintain and repair existing water sources (Table 17). Other respondents (25%) said it could be improved through community meetings and contribution while 7% said they would rely on external support for more water facilities.

Pursuing the topic of training and capacity building, the danger lies in the NGO assuming a paternalistic attitude, coming to covet 'its' community, and seeking to realise its own agenda and donor obligations rather than the actual development of the people it is supposedly serving. An important question is: what motivates the NGO to train locals? Is it a religious zeal, pure idealism, genuine concern, or a need to be recognised and appreciated? On the other hand, are there other agendas guiding their actions? Often, as in this case, there will be multiple reasons for the NGOs operations. Care should be

taken to probe the basic creed of the NGO, especially in view of the many bogus NGOs set up in Ghana in the past.

Table 17: Adequate water supply in the communities

Responses	Frequency	Percentage
Yes	16	16.0
No	84	84.0
Total	100	100.0
Suggest ways of improvement		
Maintain and repair existing water sources	13	13.0
Provide more water facilities	39	39.0
Community meetings and contribution	25	25.0
External support for water supply facility	7	7.0
Total	84	84
No response	16	16.0
Total	100	100.0

Source: Field Survey 2004

Water borne diseases

When they were asked about water borne diseases in the community 46% of the respondents said yes they were still water borne diseases in the community and 54% said no (Table 18). This also means that the communities are still relying on other sources of water which are unsafe to drink, because what has been provided is not adequate; they still need sensitisation on how to get good drinking water. Also as behaviour is difficult to change they preferred the other sources than the boreholes and HDWs provided by the NGOs.

Table 18: Water borne disease in communities

Responses	Frequency	Percentage
Yes	46	46.0
No	54	54.0
Total	100	100.0

Source: Field Survey 2004

Sixty-eight percent of the respondents indicated that water borne disease affects socio-economic growth and development as it led to low productivity which eventually ends up with one being poor as 9% of the respondents indicated (Table 19). It is safe to conclude that all the responses provided in terms of the effects of water borne diseases on community members are interrelated.

There is little room for doubt that water plays a key role in the realisation of health improvements from combined interventions, including promotion of such measures as personal hygiene. Much more difficult to

establish is the priority that improved water supply should be given in an investment programme over other health interventions, such as oral dehydration, immunisation and sanitation. Thus, the general conclusion to be drawn is that well designed projects combining the availability and quality of water supply, excreta disposal and hygiene education may achieve a reduction in diarrhoea morbidity and mortality.

Table 19: Effect of water borne diseases on socio economic development

Responses	Frequency	Percentage
Low Productivity	68	68.0
Disease/Poor health	22	22.0
Poverty	9	9.0
Affect household duties	1	1.0
Total	100	100.0

Source: Field Survey 2004

Development in study area

As to the changes the water facility has brought to the community, Table 20 indicates that 40% of the respondents said productive activities had increased and 7% said the facility had brought new settlers to the community. The provision of water would have an impact on the socio-economic activities of the communities for example those who are engaged in selling of food, rice processing and the brewing of pito a local drink.

Table 20: Changes that the water facility has brought in the community

Changes	Frequency	Percentage
Increase in production	40	40.0
Improved health and sanitation	35	35.0
Availability of water	18	18.0
New settlers in communities	7	7.0
Total	100	100.0

Source: field Survey 2004

Sustainability of water systems

From Table 21, 27% of respondents said support and measures put in place to sustain the water facility was by contributing financially to maintain the damaged parts of the pump, 19% said through community meetings to discuss how to take care of the facility and find ways of assessing for more facilities. 49% said pump caretakers had been trained. Most observers, donors and even recipient government agencies find that NGOs often are more result oriented, effective and efficient. However, overall very few of the large number of NGOs in Ghana are actively involved in implementing water supply and sanitation projects. Yet based on the survey it can safely be estimated that a large percentage of existing water coverage in the Gushegu District was provided by these agencies. Those that are involved in this sector, usually undertake small-scale water supply projects, and mostly in rural communities. Since the Ghana Water Company is the lead government implementing agency for water and sanitation, it should in principle fulfil the management role by coordinating the sector activities for the other agencies

that are active in the water and sanitation sector, including NGOs. However, from the survey it was observed that there has been little coordination or sharing of resources between NGOs in the district and the key Ministry and agencies for the sector. Similarly, the existing operational structure within the district is constrained by the vertical nature of the many NGOs activities. The problem have been too little involvement of beneficiaries in any stage of the projects and very limited focus on long-term operation and maintenance. Due to the disappointing performance of the government and district assemblies in terms of the provision of water in the district, people have developed a cynical attitude towards all political institutions and initiatives. Thus, external international agencies play a dominant role in the district developmental programmes. NGOs have been playing an effective and dominant role in the sector through the implementation of water and sanitation sector projects that are integrated in nature and incorporate a high level of community development. They have been leading agencies when focusing on empowerment, gender and local institutions. Many of them have worked with local governmental institutions, local NGOs, and community groups as well as to a limited extent supported efforts to develop private sector capacity in the district.

On the other hand, NGOs are constrained by the existing regulatory framework, their activities are not properly coordinated with government programmes, and they could benefit from technical support in some areas. Another important issue to mention is that the NGOs as well as other implementing agencies have to stick to their own programs and plans as described in the earlier sections of this chapter. They have budgets and

objectives that they have to comply to, and requirement to be effective and to follow their pre-set targets. Their targets as shown in chapter two is to provide a certain number of communities with water per year, or to implement a certain number of aspects in accordance with their plans and programmes. This can limit them in their flexibility and cooperation with the communities, and provide them with a time frame that does not allow for thorough assessment of the communities situation.

Table 21: Support and measures put in place to sustain the water facility

Responses	Frequency	Percentage
Community contribution	27	27.0
Community meetings	19	19.0
Communal labour	5	5.0
Pump caretakers trained	49	49.0
Total	100	100.0

Source: Field Survey 2004

When the respondents were given the opportunity to suggest ways of sustaining the water facility 37% said the community should demand for more water facilities, 29% indicated careful use so that the water facility would not develop problems, 32% responded that regular maintenance could sustain the facility whiles 2% said they would depend on the NGO concerned to maintain the facility (Table 22). Participation is costly; involving time-consuming meetings and difficult negotiations, eliciting everybody's opinions and acting on these. As has been shown, not all tasks lend themselves easily to popular participation – complex tasks, such as designing and building of dams, are

better executed when leadership is strong. Moreover, there are obvious costs to efficient management if people's participation is to be solicited for every task, consequently creating problems of accountability on the part of the NGO (Craig and Porter, 1997).

Table 22: Suggest ways of sustaining the water facility

Suggestions	Frequency	Percentage
Provision of more water facilities	37	37.0
Regular maintenance	32	32.0
Careful use	29	29.0
NGO support	2	2.0
Total	100	100.0

Source: Field Survey 2004

Conclusion

This chapter has highlighted the characteristics of the respondents and the activities that enhance or do not enhance community participation and rural water supply in Gushegu District in Ghana. Thus the efforts of the NGOs towards improved water management, increased knowledge about water related health issues, and improved water supply in the beneficiary communities have been essentially outlined while the desire of community members to experience these benefits and where necessary to act to ensure its availability and sustainability has been shown despite the apparent drawbacks.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study has attempted to examine Non-Governmental Organisations, community participation and rural drinking water supply in the Gushegu district of the Northern Region. This topic is of fundamental importance to ascertain the extent to which communities have accepted the activities of NGOs in the provision of water, the level of participation and patronage. In order to achieve this feat, the study is basically divided in to five chapters. The first chapter is an introduction to the research project. In chapter two, extensive but relevant literature was reviewed on the history and role of NGO's especially in rural water supply. The research method employed for the study is basically observation and questionnaires and this is discussed into detail in chapter three. In chapter four of the study, analyzed empirical data gathered from the field is presented. In the last chapter, conclusions drawn from the gathered analyzed data is presented and the study drawn to an end with recommendations on how NGO's can improve on rural water supply.

Conclusions

From the study, it came out the District has a problem with drinking water supply at the rural areas; notwithstanding this, there are good prospects for increased supply of potable water in the district. The Government of

Ghana's policy of providing water to 85% to Ghanaians by 2008 is an opportunity for the district. The District Assembly has, as part of its Medium Term Plan, developed a water and sanitation plan that proposes to increase coverage to 85% by 2008. The presence of organisations like CLIP, WVG and NORWASP will help meet this target.

NGOs identified (CLIP and WVG) were involved in the provision of HDWs, boreholes and sanitation issues (Table 7). Apart from this, they educate the communities on sanitary issues and training WATSAN Committee members to take responsibility of the facility.

It also came out that members of the beneficiary communities have accepted the activities of the NGOs, said the NGOs had "good human relations" while "33% said the NGOs had done an excellent work " (Table 10).

On the level of community participation and patronage of the activities of the NGOs, it came out that the communities participated in and patronised the activities of the NGOs as they invited the NGOs. The District Assembly also invited the NGOs on the communities' behalf (Table 8). The communities participated also by contributing financial, communal labour and accommodating the NGOs staffs.

The study also showed that the activities of the NGOs had a positive impact on the lives of the people in Gushegu district as it led to increase in production, improved health and sanitation, availability of water and new settlers in communities (Table 20).

From the research it came out that the District Assembly co-ordinates the activities of the NGOs. Despite the supply of water facilities, the

communities still experienced water borne diseases (Table 18). This was due to reliance on other sources of water.

The study also showed that the supply of water had an influence on their chosen occupation but they did not have regular supply throughout the year. It came out that, although water facilities had been provided, 54% of the people did not have access to safe drinking water (Table 5). This was a result of population growth, low water table and poor maintenance of the water facility.

The 5%-10% of installation cost and contribution in kind by the communities during construction also depended on the type of water facility constructed. The cost was higher if it was a borehole and lower for HDW (Table 12).

With the social characteristics of the respondents, the study showed that the number of people per household was large and this led to greater demand on the water facility.

Recommendations

An adequate water supply is one of the basic needs in life, but is often lacking in developing countries especially Ghana. Not only has the rate of construction of improved water supply systems been slower than the target of complete coverage, but also many of the schemes completed are not in satisfactory operating condition. A sound investment strategy in this sector calls for low-cost and maintainable solutions to achieve wide-scale coverage of the rural and urban-fringe communities in developing countries.

More NGOs are needed in the district, as there is a great demand for the supply of potable water. Therefore, the District Assembly should invite more NGOs into the district to help in this direction.

It was also noted that some of the NGOs had problems with community members defaulting their dues. This is a common problem among NGOs, but since financial viability is crucial for the continued survival of such water projects, measures should be taken to ensure that sufficient attention is given to this issue.

Policy makers should review the policy of contributing 5%-10% of installation cost and contribution in kind, as not all communities could fulfil this arrangement so they either did not get the facility or could only afford one when actually two would have met their water needs. In addition, appropriate technology should be chosen to match the resources available, as it is impossible to sustain in village conditions. To make a lasting impact, community water systems must be based on sustainable and replicable programmes, and must take account of the pace at which resource constraints can be overcome. Human resource development programmes take long to produce results, and institutional changes can only be accomplished gradually.

NGOs should take care to withdraw, so as not to create bond of dependency. Thus, the healthier evolution would be for the NGOs, after initial stages of construction, training and institution building, to establish a relationship of 'contractor – client' relationship.

Also in terms of training of community members, the concept where trainees are used in turn to train others in their community is a useful one,

which should be exploited more by NGOs. Its main benefits are those of lowering costs and promoting replication.

There is also the need of more sensitisation on family planning in the rural areas to reduce the number per household, which will lessen the demand on water facility.

NGOs should educate communities in which they operate about how to draw water if the water yield is low, that is a number of water drawers at a particular time and it should be for drinking and cooking this would reduce water borne diseases.

More sensitisation should be carried out on the need to use water filters/strainers, as alternative sources of water are not safe and the people drink it without considering about the health implications.

NGOs should effectively work with the collaborator that is the District Assembly, so that its agency that is the District Water and Sanitation Agency would help and link communities to mechanics as some problems are beyond them and they do not know where to get help so that the facility can be sustained.

To maximise health benefits, parallel investments in health education and sanitation programmes should be planned alongside community water system improvements.

Finally, the government through the District Assembly should construct more dams and water reservoirs to harvest rainwater for use, especially in the dry season in the district.

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APPENDIX I

QUESTIONNAIRE FOR NGOs

We would be very grateful if you could spare us some time out of your busy schedule to complete this questionnaire.

Please, you are assisting the researcher in a purely academic research. All information provided is very confidential.

1. What is the name of your NGO? .....

2. Why did you engage in rural water supply? .....

3. What other major activities are you engaged in? .....

4. Why have you chosen Gushegu/Karaga district as your operational area? .....

5. What are your main objectives in rural water supply? ……

6. What sort of water projects do you undertake?

(a) Construction [ ]

(b)Financing [ ]

(c) Technical advice [ ]

7. If it is technical advice, to whom do you offer this advice?

(a) Community [ ]

(b) District Assembly [ ]

(c) Both [ ]

8. If it is construction, what type of water facility is constructed?

(a) Bore hole [ ]

(b)Hand dug well [ ]

(c) Dams [ ]

(d) Others (specify)…….

9. Do you involve the target community in your water supply operations?

(a)Yes [ ]

(b) No [ ]

10. If yes, why? ……..

11. If no, why? ……

12. Do you get voluntary support from beneficiary community? State the kind

13. What are the water supply support agencies to your outfit? .....

……..

14. Communities contribute financially for the water facility?

.....

15. Apart from the financial support what other support do they give?

.....

16. Do you liaise with other NGOs in carrying out these projects?

(a)Yes [ ]

(b)No [ ]

17. Does the Ghana Water Company Limited play any role in your operations?

(a)Yes [ ]

(b) No [ ]

18. If yes, what role? ……

19. How long do you intend to complete your operations in the district?

……..

20. What are the problems encountered in the water supply operations?

.....

21. What measures and support services have been put in place for the existing water supply projects? ……

22. Do you establish any overseer committee for existing projects?

(a)Yes [ ]

(b)No [ ]

23. If yes, what type of committee? ……...

24. What activities does the committee carry out? ……

25. Do you train community members to manage the water facility? ……

26. In your opinion do you think the people have felt your presence?

(a)Yes [ ]

(b) No [ ]

(c) Not quite sure [ ]

27. If yes justify your answer? ……

28. What are the future prospects in the supply of drinking water to communities in Gushegu/Karaga district? .....

…….

29. Which other NGOs are into the provision of water? ……

30. How is the relationship between the outputs in other NGOs in terms of carrying out activities in the provision of the water facility? .....

31. How is the water facility maintained in terms of maintenance?

(a)Community's responsibility [ ]

(b)District Assembly's responsibility [ ]

(c)The NGOs responsibility [ ]

APPENDIX II

QUESTIONNAIRE FOR COMMUNITY MEMBERS

We would be very grateful if you could spare us some time out of your busy schedule to complete this questionnaire.

Please, you are assisting the researcher in a purely academic research. All information provided is very confidential.

1. Sex

(a) Male [ ]

(b) Female [ ]

2. Age

(a) 10-20 [ ]

(b) 21-30 [ ]

(c) 31-40 [ ]

(d) 41-50 [ ]

(e) 51-60 [ ]

3. Martial status

(a)Married [ ]

(b) Single [ ]

(c) Widowed [ ]

(d) Divorced [ ]

4. Number of children if any? ……

5. Number of people per household? ……. ……..

6. Occupation …….

7. Does the supply of water have influence in your chosen occupation?

(a) Yes [ ]

(b) No [ ]

8. If yes, how? …….

9. What are the sources of water supply in the community?

(a)Rain [ ]

(b)River [ ]

(c)Dam [ ]

(d) Stream [ ]

(e) Borehole [ ]

(f) Well [ ]

10. Do you have regular water supply throughout the year?

(a)Yes [ ]

(b)No [ ]

11. How does water supply affect your activities in the community? ……

12. Which of these NGOs operate in your community?

(a)CLIP [ ]

(b) World Vision [ ]

13. What does the NGO do in your community?

(a) Water facility [ ]

(b) Micro-credit [ ]

(c) Sanitation [ ]

(d) Food Security [ ]

(e) Education [ ]

14. What type of water facility has been provided by the NGO in the community?

(a) Borehole [ ]

(b) Hand dug well [ ]

(c)Dam [ ]

(d) Others (specify)……

15. How did the NGO come into your community?

(a) Community invitation [ ]

(b) Assembly invitation [ ]

(c) Organisation's initiative [ ]

16. Did the community contribute financial for the water facility?

(a) Yes [ ]

(b) No [ ]

17. If yes, how much did you contribute? …….....

18. Did you contribute monthly or yearly? ……..

19. Apart from the financial contribution which other way did the community contribute to the water project? ……..

20. What type of water facility has been put up?

(a) Bore hole [ ]

(b) Hand dug well [ ]

(c) Dam [ ]

(d) Others (specify) …….

21. Do all members of the community have access to safe drinking water?

(a)Yes [ ]

(b) No. [ ]

22. How does the rural water supply affect production in Agriculture?

.....

23. Which people provided labour towards the construction of the project?

(a)The community [ ]

(b)The NGO [ ]

24. Does the community have an existing water and sanitation committee?

(a)Yes [ ]

(b)No [ ]

25. If yes, what role does it play in the community water supply drive?

……

26. Are you satisfied with the water supply in the community?

(a) Yes [ ]

(b) No [ ]

27. If no, suggest ways of improving the water supply facility? .....

28. Did you experience any water borne diseases in the community before the water facility was provided?

(a) Yes [ ]

(b) No [ ]

29. Presently do you experience any water borne diseases?

(a)Yes [ ]

(b)No [ ]

30. How does the water borne disease affect the socio-economic growth and of the people and development of Gushegu/Karaga area?

……

31. What changes has the water facility brought about in the community?

……

32. If no, changes why? ……

33. Are you satisfied with the conduct of the NGO involved?

(a)Yes [ ]

(b) No [ ]

34. Give reason? ……

35. What support and measures are put in place to sustain the water facility?

……

36. Suggest ways of sustaining the water supply facility in your community?

……

……