

**DEPARTMENT FOR INTERNATIONAL
DEVELOPMENT**

**SMALL SCALE PRIVATE SECTOR
PARTICIPATION IN THE RURAL WATER
SUPPLY SECTOR**

R8335

PHASE 2 – SURVEYS

**COUNTRY REPORT
FOR
GHANA**

SEPTEMBER, 2004

CWSA and WaterAid

1. Introduction

1.1 General

This report presents the results of a survey of the rural water sub sector in order to understand rural business livelihoods and supply chains and of the capacity of local government to enable and regulate the sub sector in Ghana.

This survey forms phase 2 of Knowledge and Research (KaR) Project No. R8335 “Small scale private sector participation in the rural water supply sector”. The project commenced in November 2003 with an inception phase 1. The inception report, Knowledge Review and Information on the project can be found at www.ruralwaterpsp.org.

This report forms one of the three country reports produced in phase 2; others being reports of similar surveys in Zambia and Tanzania. All three reports are summarized in a synthesis report by Water Management Consultants Ltd (WMC).

1.2 Objectives

The research focuses on investigating legal and institutional mechanisms for governments to use in creating an enabling environment in which firstly rural-based, small scale, private service providers can contribute effectively to the rural water supply sub sector, and secondly in which governments can develop their capacity to regulate service providers.

The objective of the project is to take three governments through a process of developing guidelines (actions) for creating an enabling environment that will strengthen the involvement of the private sector in providing services in rural water supply development.

The objective of the survey is to provide improved understanding of rural business livelihoods and supply chains in the rural water sector and of capacity of local government to enable and regulate the sector in the study countries.

1.3 Survey Team

A three–man team consisting of Mr. Mawuena Dotse and Mr. Frank Anim of Wateraid and Mr. Edward Aboagye of CWSA conducted the survey.

1.4 Study Areas

The study survey took place in the Volta Region. of Ghana given its prior selection. Three districts in the region were chosen based on geographical locations. Nkwanta District representing the savanna belt, Ho District representing the middle belt and Akatsi District representing the coastal belt. The study areas are described in more detail in section 2.5.

1.5 Survey Timing

The survey was conducted between May and August 2004.

1.6 Next Steps

The survey forms part of the overall work programme in phase 2. The next activity is the formation of the multi-stakeholder working group. A multi-stakeholder Working Group will be set up during phase 2 of the study and would comprise representatives of key stakeholder groups (i.e. national and regional rural water supply agencies, district assemblies, communities, private service providers, donors, relevant NGOs, etc).

The role of the Working Group will be to build up a vision of what needs to be done to generate an enabling environment for the appearance of small scale private service providers, strengthened communities (to engage with private providers) and strengthened local government in the regulatory/facilitators' role.

2. SURVEY METHODOLOGY

2.1 Introduction

The survey consists of the following three components;

- Assessment of demand for guidelines among key stakeholder groups
- Assessment of capacity of local government to enable and regulate small rural-based private sector
- Assessment of capacity of small and medium size enterprises and non-governmental organizations.

Production of Survey Instruments

A number of survey methods were used to help achieve the objectives of the study. The survey instruments took cognizance of the sub sector analysis, livelihoods analysis and supply chain mapping. The main instrument used was the questionnaire that was administered to the identified target groups. The questionnaire, in the main, sought to gather information from the identified target groups on the following issues:

- legal and institutional arrangements of private sector actors
- financing arrangements
- knowledge about private sector participation in rural water supply
- technical capability and availability of spare parts
- information dissemination on guidelines and reforms

For purposes of triangulation, the administration of the questionnaire was supplemented with interviews and focus group discussions at various levels.

The survey questionnaire is presented in Appendix A of the report.

Field Work

Targeted groups identified during the fieldwork were Central Government officials, Community Water and Sanitation Agency officials, private sector operators in selected districts in the Volta region, District Assembly officials in selected districts in the Volta region, representatives of donor agencies and non-governmental organisations.

Data Compilation and Analysis

Data compilation and analysis took place in two phases. Firstly, immediately after completing the fieldwork, the team met during to write out and assemble the information collected from interviews and focus group discussions.

Triangulation of field reports was the principal method used for verifying field data. Connected information from different discussions were compared and put together to corroborate and validate results. The output of this was a collection of fieldwork notes which were qualitatively analysed. The research team met together and discussed the groundwork interpretation of results. The output of this was a draft report.

2.2 Capacity of Private Sector

The study adopted the Livelihoods analysis, sub – sector analysis and the Supply chain mapping as analytical tools in a bid to understand the capacity of the private sector. The following section gives a summary of the methodology used for the study.

Sustainable Livelihood Approach

The concept of livelihood strategies builds on the widely accepted interpretation of poverty as including a lack of basic needs, income/consumption, assets (material and non-material) dignity/autonomy, social inclusion, equality (gender and ethnicity) and political freedom/security (Brook and Davila, 2000 citing Carney, 1999). The approach is based on the assumption that poor people operate in a vulnerability context in which they may have access to certain assets or poverty reduction factors. It is people centred in the sense that it puts people and not projects or products at the centre of development. This way, it increases the effectiveness of development initiatives and interventions. It begins with an analysis of people's livelihoods and how these change over time. It involves people, respects their views and also works to support them to achieve their own livelihood goals.

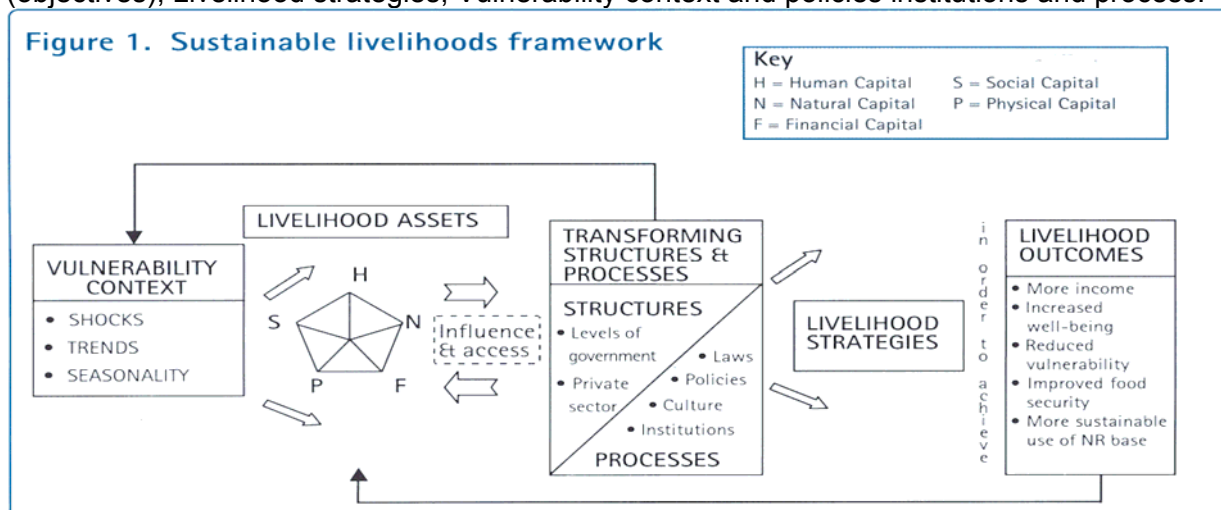
Definition

Livelihood is generally defined as comprising of the 'capabilities, assets and activities required for a means of living' Carney (1998). However, a more elaborate definition of the concept is found in Sustainable Livelihoods Guidance Sheets (DFID, 1999) as follows:

A livelihood comprises the capabilities, assets (including both material and social resource) and activities required for a means of living. A livelihood is sustainable when it can cope and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

Framework

The analytical framework for the sustainable livelihoods approach (ALA) is aimed at facilitating understanding and analysis of the livelihoods of the rural poor and seeks to gain realistic and accurate appreciation of people's strength and resourcefulness and how these can be converted into positive livelihood outcomes by removing the constraints to the realisation of the potentials. The analytical framework comprises five main components; Livelihood assets, livelihood outcome (objectives), Livelihood strategies, Vulnerability context and policies institutions and process.



Livelihood Assets

The approach identifies five main types of assets upon which livelihood are built. These comprise human, social, natural, physical and financial capital. Natural capital refers to natural resource stocks from which resource flows and services (e.g. natural cycling, erosion protection) useful for livelihoods are derived. Social capital refers to the social resources upon which people draw in pursuit of their livelihoods. These are developed through networks and connectedness, membership of more formalised groups, relationships of trust, reciprocity and exchanges that facilitate cooperation and reduce transaction costs. Financial capital refers to financial resources that people use to achieve their livelihood objectives. In this context, financial capital includes flows as well as stocks and it can contribute to consumption as well as production. Physical capital comprises the basic infrastructure (i.e. changes in physical environment) and producer goods (i.e. tools and equipment) needed to support livelihoods. Human capital represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives.

Under the SLA the assets are analysed individually and also with regard to the inter-relationships that exist between them. An essential part in their analysis is the extent to which the poor have access to them; for if they are available but the poor do not have access to them, then they are not of much consequence.

Livelihood outcomes (objectives)

Analysis of the objectives of the poor comes to the fore in the sustainable livelihoods approach

Livelihood strategies

The livelihood strategies of people are also an important component of the SLA and closely linked to the people's objectives. The strategies indicate the range and combination of activities and choices that the poor make or undertake in order to achieve their livelihood outcomes.

Vulnerability context

The approach is based on the assumption that poor people live in a vulnerability context. It essentially involves the external factors, which may impact adversely on the activities of the poor. These include wars, floods, earth tremors, disease, seasonality, changes in prices, etc.

Policies Institutions and Processes

The SLA framework also recognizes the fact that small scale operators are affected by the actions, regulations, laws, policies, as well as actions of both local and international public and private institutions, government and non-governmental organisations and their influences on the people's livelihood activities.

Analysing the many facets above, offers a holistic approach. It attempts to capture all the factors that in one way or the other impact on the livelihood of the rural poor. Thus, it takes cognizance of the multiple dimensions of poverty and aims at helping the poor to achieve lasting improvements against the indicators of poverty.

Supply Chain Mapping

Supply chains: a definition

A supply chain is the term used for the process that relates all activities involved with the flow and transformation of goods from the raw materials stage through to the end-user, as well as the associated information flows. A supply chain map shows the core functions within the map and some associated activities outside the map that are necessary for the effective operation of supply chains. These associated external activities are referred to as the enabling environment, and also include access to good infrastructure and a regulatory environment that does not restrict trade. Materials and information flow both up and down the supply chain. Supply chain management is the integration of these activities through improved relationships within the supply chain to achieve a sustainable competitive advantage (Handfield et al, 1999).

The fundamental objective of all supply chains is to deliver a successful product at an adequate profit. To achieve this, the product must meet the aspirations of the customers; that is, it must be obtainable, reasonably priced, of sufficient quality and delivered in a right time.

Sub - Sector Analysis

A **sub -sector** can be defined as all the firms that buy and sell from each other in order to supply a particular set of products or services to final consumers. A sub-sector includes producers, processors, input suppliers, wholesalers, and retailers and is defined by a particular finished product or service.

The Sub - Sector Analysis indicates the following;

- Sub-sector structure showing functions and participants, channels and key relationships between actors in the rural water sub -sector.
- An analysis of the dynamic trends and forces (market, institutional, environmental etc) that influence the sub-sector.
- An evaluation of the principal opportunities and constraints facing small enterprises in the sub=sector
- An outline of initial proposals for “leveraged interventions” that set the agenda for specific activities

2.3 Capacity of Government

In assessing the capacity of government at all levels, an analytical approach (WASH 1988). was selected. The following nine performance criteria were used;

- Organisational autonomy.
- Leadership.
- Management and administration.
- Commercial orientation.
- Consumer orientation.
- Technical capability.
- Developing and maintaining staff.
- Organisational culture.
- Interactions with key external institutions.

2.4 Need for guidance

2.5 Study areas

The study survey took place in the Volta Region of Ghana given its prior selection. Three districts in the region were chosen based on geographical locations. Nkwanta District representing the savanna belt, Ho District representing the middle belt and Akatsi District representing the coastal belt.

Nkwanta District

Nkwanta District is one of the twelve districts in the Volta Region. It is located in the northern – most part of the region and lies between latitudes 7 30 and 8 45 North and longitude 0 10 and 0 45 East. The district is classified into two major relief zones; the mountainous southern portion lying along the eastern border with the Republic of Togo and the undulating northern portion with altitudes between 100m to 200m above sea level. Agriculture is the most important economic activity in the district in terms of employment and income generation. The district is a major producer of yam, cassava and maize in Ghana. Poverty is widespread in the district and one of the most endemic areas in the world in terms of guinea worm.

Ho District

Ho District also serves as the regional capital of the Volta Region. It lies between latitudes 6 20 and 6 55 North and longitude 0 12 and 0 53 East. The district is classified into two major relief zones; the mountainous north and north east which are part of Togo Ranges and have heights between 183 – 853 meters. The formal economy sector of Ho is mainly of employment in the public service, private construction firms and a few large trading companies. The major economic activities in the rural areas of the district where about 70% of the people live are subsistence farming and animal rearing.

Akatsi District

Akatsi District is located in the south eastern portion of the region. The vegetation of the district is made up of coastal savannah in the south and savannah woodland to the north. Agriculture, which is the major economic activity in the district is mainly at the subsistence level and fishing as a major activity. The topography of the district is gently undulating with a general elevation of the land averaging 10-50 meters above sea level, and a peculiar coastal savannah soil, ground water laterite and tropical black earth.

3. SURVEY RESULTS

3.1 Introduction

The survey results are appendix

The survey results have been organised to reflect the issues on which questions were asked. Specifically, the key areas are with respect to the capacity of the private sector, government institutions (local and national) and donors on the small scale private operators in the rural water sector. The survey results present information on the demographic data of respondents in the 3 study districts. Other issues presented across the three levels of respondents are :

- knowledge about PSP in the rural water sector
- new roles for the private sector in the rural water sector
- level of awareness--- legal
- level of awareness----institutional
- level of awareness---- financial

The survey result also presents findings on technical issues, general capacity building and information dissemination.

The first section of the results discusses the capacity of the small scale private sector, while the second section presents issues relating to the capacity of both the central and local government institutions to formulate and implement policies for the involvement of the small scale private sector in the rural water sector. The third section presents findings from development partners.

3.2 Capacity of private sector

3.2.1 Demographic data

The surveys were conducted in Nkwanta, Ho and Akatsi districts in the Volta Region of Ghana. The three districts as in the order appeared represent the northern, mid and southern Volta regions respectively. Summary of basic demographic data of discussants are presented in Table 3.1.

Table 3.1 Demographic data of private sector respondents

District	No of respondents	Age – range	Sex
Nkwanta	4/1/1 =6	24-42	Males
Ho	5/1/1 = 7	36-64	Males
Akatsi	3/1/1=5	37-52	Males

Nkwanta

Occupation		Average income p.a. (¢)	
Major	Subsidiary	Major	Subsidiary
Farming/3	A M /4	1.6 million	500.000
Plumber/electrician/1	-	3.6 million	-
Plumber/1	-	3.6 million	-

Ho

Occupation		Average income p.a. (¢)	
Major	Subsidiary	Major	Subsidiary
Farming/5	A M /5	1.5 million	200,000
Trading/1	Spare part supplier	60 million	76,000
Electrician	Spare parts supplier/spare parts producer	65 million	45,000,000/ 60,000,000

Akatsi

Occupation		Income p.a. (¢)	
Major	Subsidiary	Major	Subsidiary
Electrician /1	Roofing tiles production	2.5 million	1,500,000
Motor mechanic/4	Hand pump repair / farming	1.8 million	500,000 / 800,000

3.2.2 Knowledge about PSP in Rural Water Supply

All respondents interviewed play one form of role or the other in rural water supply. These mainly take the form of preventive maintenance and repairs, educational campaigns, inspection of leakages and voltage checking for mechanized boreholes and have attended some sort of meeting related to rural water supply. The major organizers and/or sponsors of such meetings were the Danish Development Agency (DANIDA) through the regional offices of CWSA and the District Assembly (DA)/District Water and Sanitation Team (DWST) in the respective districts. Others included World Vision International (WVI), Ghana Health Service, Global 2000, GTZ and Aqua-gro (a private sector organisation). Issues discussed at such meetings mainly centred on health and hygiene education, operation and maintenance of water facilities, marketing of spare parts. When further quizzed on the relevance of issues discussed and their occupation, most respondents established a direct relationship between their participation in these meetings and improved efficiency in the performance of their various tasks.

3.2.3 New roles for the Private Sector

When respondents were asked about what new roles they could assume under the proposed Small Scale Private Sector Participation in the rural water sector, most of them were of a strong conviction that they can take up new roles like the installation of hand pumps, construction of platforms, laying of pipes for small towns water supply schemes, electrical installations and pump testing. Respondents were also of the belief that with the training of more locally based private sector operators, rural water delivery will be a shared responsibility between the large and small scale operators. Even though sections of the private sector interviewed foresee a shift in focus from centrally to locally based interventions with the promotion of decentralisation some respondents however do not foresee any change towards locally based interventions for procurement of goods and services for rural water supply.

Main players in rural water supply and their functions as perceived by the private sector has been summarised in Table 3.2

Table3.2 : Functions of Main Stakeholders

Stakeholder	Functions
Regional Water and Sanitation Team (RWST) of CWSA	Responsible for the initiation and formulation of policies and strategies, co-ordinating of budgeting, monitoring and evaluation to ensure the efficient delivery of services in the water sub-sector
District Water and Sanitation Team (DWST)	Compilation of district monitoring reports, preparation of feasibility studies, offering technical advice to DA,
District Assembly (DA)	Selection of project beneficiary communities, contracting out of specialist services such as community sensitisation, drilling and pump installation
Donors and Non Governmental Organisation (NGO)	Providing funds for water facilities, undertaking community mobilisation, supplying spare parts and contracting out specialist services
Civil Works Consultants	Designing and supervising the construction of platforms, reservoirs, water supply, supervising pipe laying, conducting functionality studies of the facilities
Drilling Contractors	Drilling of boreholes/installation of hand-pumps, boreholes rehabilitation/flushing, yield test etc
Construction Contractors	Laying of pipes and building of reservoirs
Hydro geological consultants	Geophysical studies, siting of boreholes and supervision of borehole drilling
Spare parts dealers	Purchase, storage and distribution of spare parts
Partner Organisations	Training of community water and sanitation(WATSAN) committees /Water and Sanitation Development Boards (WSDB) in community mobilisation/hygiene education
Area Mechanics	Diagnosis of faults, preventive and routine maintenance of pumps
Pump Electricians	Installation and repair of submersible pumps on mechanised borehole schemes
Plumbers	Repair of mechanised schemes, pipes and leakages
WATSAN committees	Community mobilisation for 5% capital contribution, collection of tariff and water user fees for operation and maintenance fees, purchase of spare parts and payment of Area mechanics

3.2.4 Level of Awareness- Legal

All the Area Mechanics interviewed operate their enterprises on a subsistence basis. Given the scale at which these enterprises operate, the idea of the owners registering their entities legally is remote to them. However, the spare parts dealers have registered their parent companies of which the spare parts hard ware is only a part. According to them distance from Accra where the Registrar General's Department is situated was a hindrance to registration and were of the view that if registration was decentralised at least to the district level, it will remove some of the bottle necks that discourage easy registration.

When respondents were asked whether their activities were regulated, they all answer in the affirmative and named RWST of CWSA, DWST and WATSAN committees as the main regulatory bodies. Regulation is done through the establishment of a price list to guide the sale of spare parts. Spare parts purchased by the AMs and caretakers are shown to the WATSAN committee members before they are used in the repair of the facility. In the same vein, WATSAN committee members in respect of spare parts purchased are inspected by the members of the WATSAN committee.

3.2.5 Level of Awareness - Institutional

With the exception of one, all the AMs, pump electricians and plumbers have not had any contract for work neither do they have any idea on the role of the Assembly in the award of contract. Only one of the Area Mechanics at Nkwanta claimed to have had a contract from Aqua-gro and Hunger and Poverty Reduction Programme (HUPREF) based in Accra and Nkwanta respectively.

There was an indication of effective interaction between the locally based private sector service providers and other institutions and people in the community such as the WATSAN committees, religious organisations, chiefs, elders and opinion leaders. The WATSAN committees indicated some of their functions as record keeping, book -keeping and payment of service providers. Service providers on the other hand identified the provision of efficient services to the communities and receiving prompt payment from them as a way of ensuring a healthy relationship between the two parties. On the issues of community responsibility before water facility is provided, discussants pointed out the payment of 5% capital cost contribution, formation of WATSAN committee and opening of bank accounts as the key demands from the communities.

Discussants said that water facilities are managed by funds raised from levies and pay as you fetch and maintained by undertaking of preventive maintenance such as greasing, changing of defective parts mostly by Area mechanics.

There were however, challenges confronting the small scale private sector as underscored by discussants. Some of these challenges were unavailability of money to purchase parts and/or unavailability of the parts and mobility. Some of the measures put in place to meet these challenges are pre financing of work, negotiating items on credit and walking to service site for repairs and at times improvise in the case of pipes for mechanised system.

3.2.6 Level of Awareness - Financing

The payment of all locally based private service providers is normally done by the WATSAN committee members notably the chairman and the treasurer. In some cases, the Unit committee members also perform these tasks. The rates for services are determined by CWSA.

On the question of duration of payments of goods and services, the earliest time respondents said they are paid is one week and the longest is six months. When asked about the acceptability of these arrangements, all but one (i.e. the spare parts dealer), strongly expressed resentment to these arrangements. Reasons given for their displeasure were that, payment only takes into account the number of days used for the actual physical repairs which may normally be a day's work, without considering the number of days used to determine the problem and in purchasing the spare parts. They also contended that, their work was risky, a factor that is not normally taken into account. They also contended that hired labour by service providers is at times not paid for.

A spare parts dealer expressed satisfaction with the 10% commission paid on the sale of spare parts. Nonetheless, he has folded up the business as a result of the low sales volumes that affected profitability of the business.

On pre-financing of goods and services, all the respondents save the spare parts dealer indicated that they pre finance the supply of goods and in rendering of services to their clients. However, none of the respondents has a ceiling to the level of pre-financing.

Respondents also commented on challenges they face in the purchase of parts. This include the purchase of spare parts where actual prices are at variance with the prices on the price list; a situation that occurs when alternative spare parts have to be purchased in the absence of the standard parts. Such challenges are sorted out through negotiations with the dealer, even though the outcomes are at times negative.

Another challenge is the lack of adequate funds by the community to cover O&M as a result of weak financial mobilisation. In such situations, some service providers pre finance the purchase of the needed parts but lamented the inability of some communities to pay afterwards.

The third major challenge enumerated was the lack of spare parts for particular equipment. This problem is at times solved by using parts of other models. The improvisation ranged between success and failure. A pump electrician however claimed success in his improvisation efforts.

All the respondents mentioned DANIDA as the main financier of rural water projects in the region. Other institutions mentioned were the District Assembly and Hunger and Poverty Reduction (HUPREF) a local NGO in the Nkwanta district. Despite indicating the names of some financiers for rural water projects, the interviewees are unaware of the intricacies of the financing mechanism apart from the 5% community contribution. The 5% community contribution is normally raised from community harvest and levies normally paid by adults above eighteen years. The research team however discovered a unique situation in one community in the Ho district, (Hodzo Achianse) where parents paid contributions to capital costs on behalf of their children and even unborn babies (in the case of pregnant women). In addition to the 5 % contribution to capital cost, communities raise money for O&M, through the collection of periodic water fees (usually ₵1,000 per month per adult) and in the sale of water under the "pay as you fetch" system,

All the private sector providers interviewed were of the opinion that the involvement of the small-scale private sector interventions will enhance efficiency. Among the reasons given were that, because the small-scale private operators are normally resident in the community they can easily be traced, in case of shoddy work. These private providers were also of the opinion that their charges will be lower than the large scale private sector operators. These private sector operators will also exhibit a high sense of commitment to their activities in tandem with the spirit of community ownership and management.

3.2.7 Technical

The respondents indicated their familiarity with three (3) out of the (4) standardized pumps in Ghana, namely: (a) Nira AF 85 (b) Ghana Modified Indian Mark II (c) AFRIDEV. Some of them are also familiar with the Pedal flow pump that was installed in some communities by CWSA between 1998 and 2000 for testing purposes.

The familiarity with the pumps is borne out of the training provided to these service providers on the installation and repair of the Ghana Modified Indian Mark II, Nira AF 85 and AFRIDEV pumps. Only one of the service providers from the Nkwanta district had some training on the Pedal flow pump. The training sessions were conducted by officials of CWSA, IGIP and Aqua-gro .

When discussants were asked about the availability of parts, they indicated that the parts that were normally supplied included cylinders, rod centralizers, foot valves, coupling guides, handle pipes, cap ladders, fulcrum pin bushings and sleeve bearings. These parts are normally obtained from the warehouses of the following : (i) Regional office of CWSA at Ho, (ii) Aqua-gro (a medium scale private importer of pumps and parts in Accra) (iii) Ghanira (the manufacturer of the Nira AF85) and (iv) Foundries and Agricultural Machinery (the private operator contracted by CWSA to import and distribute spare parts to facilitate the decentralized spare parts distribution system).

Some of the challenges faced by the respondents were changes in prices as a result of the depreciation of the cedi (the local currency) against the United States dollar. While the SSPS operators in the Nkwanta and Akatsi districts indicated having technical challenges, those in the Ho district indicated the reverse. Two key problems mentioned by the Nkwanta team were incompatibility of cap ladders and of new plunger and old cylinders.

Assessment of water quality is done by the WATSAN committees members at the community levels. Though the WATSAN committee members concede their lack of expertise to determine water quality, they rely on indicators such as taste and odour to arrive at their decisions. In addition to these, the WATSAN committee members also rely on the incidence of water borne diseases prior to and after the improvement of water supply to the community.

3.2.8 Capacity Building

All the discussants interviewed have been involved in training programmes organised by the District Assemblies, CWSA and Women and Development Foundation (WADEF). Some of the key issues discussed were

- Various types of spare parts and how to fix them
- Marketing and fund raising strategies
- Records keeping

According to the respondents, these training programmes have added value to their performance.

It is recognized that associations play significant roles in most organised bodies. Given this recognition, we sought the views of respondents on the need for the formation of an association to project the objectives and image of the private providers. In response to the question, all respondents indicated the absence of an existing association even though most of the locally based services providers know themselves as a result of attending meetings and training sessions. Given the perceived benefits to be derived from organized groups, the respondents accepted the need to form associations in order to have a strong bargaining power. Some of the respondents were, however of the opinion that the formation of an association should be contingent on an improvement in the demand for their goods and services.

When asked about the capacity of the small- scale private operators to handle assignments, all of them indicated that given the necessary push, they would be able to handle many assignments excluding borehole drilling. Specifically, they would be able to undertake the following assignments: (i) hand pump installation, (ii) repair of hand pump (iii) construction of platforms and (iv) pipe laying

As to whether respondents were prepared to stay on their present jobs, all the area mechanics and the pump electricians affirmed their preparedness to stay on their present jobs; the desire to help their community being the motivating factor. In addition, payments made to them for their services (however little) supplements the income from their primary occupations. The spare parts dealer from Ho indicated that he had to fold down because of low patronage of goods. The entrepreneur has however indicated his preparedness to resume the business conditions improve.

3.2.9 Dissemination of Information on Guidelines and Reforms

Suggested media for dissemination of information should be through stakeholder workshops, national print and electronic media, bulletins and publications of CWSA, WaterAid and other stakeholders.

3.3 Capacity of Government

The surveys covered government officials from the Nkwanta, Ho and Akatsi District Assemblies (DAs) all in the Volta Region and also from Accra (the national capital). A summary of the demographic data of institutions and representatives interviewed is presented as appendix B.

For the purpose of this report we wish to indicate that the machinery of the government of Ghana has been decentralized. A four tier system of government has been established within the framework of the decentralized structure, namely: national, regional, district and sub district levels. The institutions that operate at the national level are Central government ministries (e.g MoWH), agencies (e.g. CWSA). The regional level includes the Regional Coordinating Council and the regional offices of agencies and departments. The district level is made up of the District Assemblies and the district offices of ministries and departments and some agencies. The sub district structure is made up of the Urban/Zonal/Area/Town councils and Unit committees

3.3.1 Capacity of National Governments

3.3.1.1 Knowledge about PSP

CWSA plays a facilitative function by providing technical support to the District Assemblies in the execution of their water and sanitation programmes. It also plays a collaborative role with NGOs and other stakeholders in the sub sector. The nature of the collaboration is to ensure that these organisations comply with the sector policy and operate in accordance with laid down standards and regulations in the provision of improved water supply and safe sanitation.

The central government officials expressed satisfactions with the process of water delivery since it is based on the demand responsive principle coupled with the channeling of a large proportion of project funds through CWSA for efficient utilization. This general view notwithstanding, some officials felt that the demand driven approach should be implemented alongside a rights based approach since the provision of water is a basic human necessity. One issue raised was the inability of some NGOs to comply with some of the key principles of the national sector policy particularly the demand responsive approach.

The survey indicated that, currently, there is no government policy on SSPSP in rural water delivery. However, CWSA has initiated some pilot projects under the Public Private Infrastructure Advisory Facility (PPIAF) and European Union (EU) small towns water supply project in some regions (Ashanti, Brong Ahafo and Western) within the framework of the broad private sector participation in the water sector. We were informed that these pilot projects are running successfully. Though there have been some workshops and seminars on this, the projects have not been replicated in the other regions.

3.3.1.2 Level of Awareness of PSP among Government organizations -Legal

All the respondents were aware of the legal framework governing the operation of the water sector, particularly the legal instruments that established CWSA, Water Resources Commission, Ghana and the respective DAs.

Various respondents gave various impressions about the effectiveness of the legal framework but indicated its ineffectiveness in addressing issues relating to the SSPSP for the water sector. Respondents were of the view that there should be modifications in the existing laws to make a distinction between interventions in the urban sector from those in the rural sector.

3.3.1.3 Level of Awareness- Institutional

The major institutions identified that could have established interface with the SSPSP programme are CWSA and the DAs. These are the institutions empowered by law to undertake the delivery of water services to small towns and rural communities. The expected interface could be in the form of the identification, selection and contracting coupled with training, supervision, monitoring and evaluation of SSPS programmes.

Experience gathered from the Bekwai (Ashanti region), Atebubu (Brong_Ahafo region) and the experiments in the Western region, seem to suggest the existence of the potential in the sub sector for small scale entrepreneurs. It was pointed out that what is required is proper and transparent identification and selection processes, capacity building, supervision and proper monitoring of the small scale operators. Empirical evidence from these regions suggest effective communication, (dialoguing, brainstorming, discussions) and study tours of stakeholders and experts in the water sector to expand the frontiers of knowledge on this subject matter.

Concerning the award of and supervision of contracts, it was pointed out that, there now exists a Public Procurement Act which clearly spells out what is legally permissible. The Act also details roles and responsibilities for local and international procurement and the various modes of contracting. The Public Procurement Act defines the various thresholds (contract values) permissible at each level and it is these thresholds that determine who does what and at what level. Respondents indicated that even though the MLGRD and MoWH should play advisory roles through their representative on the RCC tender board, contracting of small scale operators should stay within the confines of CWSA and DAs.

3.3.1.4 Level of Awareness-Financial

On the issue of financing of rural water by government, the research team was informed that government's finances for sector investments are channeled through budget allocation in the form of subvention to CWSA, and through the DA's common fund. Given the inadequacy of government interventions, government is over dependent on donors to fund critical investments in the sector. The phenomenon of over dependence on donors is not sustainable. To redress the imbalance between donor and government financing of sector activities, the following short term strategies are being considered by government organizations:

- increasing the annual Government of Ghana budgetary allocations for investments in the sector;
- enforcing the full payment of the rural water levy from GWCL to CWSA;
- ensuring the payment of community contributions;
- increasing the DACF allocations and HIPC funds to DAs;
- soliciting loans and grants from development partners.

The proposed long term strategy is the adoption of the sector wide approach (SWAP) to investments in the community water and sanitation sub sector. This is premised on the adoption of a common national water policy and implementation approaches; funding mechanisms; monitoring and reporting systems.

As to whether the small scale private sector has the capacity to finance piped water schemes projects independently, respondents felt that if these category of operators would perform their tasks under a “management contract” there would be no problems with financing. However, these small scale operators lack the capacity to execute projects within the framework of Build, Operate and Transfer (BOT), Build, Own, Operate and Transfer (BOOT) because of the high capital outlay required for such piped schemes. These entrepreneurs cannot operate independently without government guarantees or government contracting the loans and grants for them.

When the question was asked, whether the small scale private sector operators are likely to face any financial difficulties, respondents were unanimous in the affirmative. They felt that the small scale private sector operators do not have the financial capacity, and cannot raise the capital from any bank or external funding agency on their own. In addressing this setback, discussants suggested that government should guarantees their financial commitments.

Respondents provided various suggestions on the pricing of water. One of the suggestions include granting exemption to guinea worm endemic communities from the payment of community contribution to capital cost. It was also suggested that communities should focus on contributions for only O&M. Some respondents also indicated that insistence on the full payment for community contribution to capital cost should be influenced by the standard of living of the community and the availability of formal avenues of employment.

3.3.1.5 Capacity Building

It was a general expression that as at present, the small scale private sector operators do not possess the skills and techniques to manage all aspects of the provision and maintenance of rural water supply facilities. This is due to the evolving nature of the private sector in the water sector and the need for government support and encouragement.

Construction, installation and maintenance of water facilities are regulated by the small towns water supply policy as well as O & M guidelines developed by CWSA for these schemes. However, there is no such separate policy for point sources (hand dug wells and boreholes) and steps are being taken in this direction. MLGRD on the other hand exercises it monitoring role through it representation on the Board of Directors of CWSA and through its supervision of the activities of the DAs.

All respondents were of the view that water quality at the community level should be determined by DWSTs and the Monitoring of Operation and Maintenance (MOM) teams of CWSA (based at RWST level)

Training of the private sector was viewed to be very cardinal to the success of the SSPSP project and it was strongly suggested that such training programmes should be organised on a national scale. The selection of SSPS operators and their eventual training should be based on the following factors: (a) academic qualifications, (b) background and experience of personnel of firms wishing to participate ; (c) the capital outlay and equipment base of these firms. The selection criteria and institutions to be in charge of training, certification and licensing, development and distribution of training materials may call for a conscious government policy decision backed by legislation on the issue. These interventions should be treated as part of the overall water sector reform programme. Some residents indicated the possibility of conferring the mandate for the selection, training and certification of the small scale operators on the National Board for Small Scale Industries (NBSSI) with support from CWSA.

In order to ensure quality of work, respondents suggested the establishment of technical standards and specifications for water facilities, effective supervision, monitoring and feedback of the activities of the private operators.

3.3.1.6 Dissemination of Information

Respondents were of the opinion that even though the majority of communities were generally satisfied with the service providers of rural water facilities, the activities of some leaves much to be desired. Attempts are however being made to weed out the bad nuts by the development of a certification mechanism by CWSA. Information on SSPSP should be disseminated through the existing available channels of communication.

3.3.1.7 Opinion and Comments

All respondents were unanimous that the SSPSP concept is laudable and stressed that it must be vigorously pursued and implemented. They contended that local entrepreneurship must be created, encouraged, nurtured, propped up and made to flourish. This is the only way we can create jobs, build our economy and stem the tide of emigration to foreign lands.

3.3.2 Capacity of Local Government (DA/DWST)

3.3.2.1 Knowledge about PSP in Rural Water Supply

The major roles identified by DAs/DWSTs in the provision of rural water facilities are community mobilisation, sensitisation, education and formation of WATSAN committees. The DA is institution responsible for the training of WATSAN committees on facility maintenance. In addition to this, DWSTs act as liaisons between DAs and the communities in the implementation of government policies on water delivery.

Respondents were very conversant with the key players in the supply of water facilities in the communities. Key players mentioned include DWST, contractors, POs, AM,s WATSAN Committees, spare parts dealers, Unit committees, electrical pump repairers, consultants, District Water and Sanitation Sub Committee (DWSSC), caretakers, head pump suppliers and plumbers. In like manner, they were also knowledgeable about the duties and functions to be performed by these stakeholders. Similar functions as tabulated in table 3.2 were given.

Respondents indicated satisfaction with current arrangements for water delivery. In particular, they outlined the usefulness of the “pay as you fetch” system as an effective means of raising funds for operation and maintenance (O&M). They were also of the view that the presence of AMs ensures the timely repair of water facilities. Reference was also made to the establishment of WATSAN committees who ensure that proper records are kept in addition to reporting leakages to the AM for prompt action and for routine checks at least every six months.

In line with the government decentralization programme, respondents felt that the District Assemblies should assume a greater role in training, release of funds for purchase and warehousing of spare parts, in addition to the existing traditional role of the award of contracts. They however indicated their preference for the involvement of the DWST in the sale and supply of spare parts. This is due to the apparent problems being encountered by the communities and the DWSTs in the purchase of spare parts under the existing system. A case in point was at Ho District, where the only spare part dealer has closed down his shop due to non profitability of the venture. Also in the Akatsi District, it was alleged that a spare part shop was closed down because the dealer could not account for the sales he had made. It was suggested that the DA could support SSPSP through a financing mechanism at the initial stages of the project.

When respondents were asked what they think could have necessitated the idea of SSPSP, they were strongly of the belief that, the introduction of such a concept would greatly enhance the decentralisation process. Some of the key benefits to be derived from the proposed project are capacity building, poverty reduction and accountability.

3.3.2.2 Level of Awareness-Institutional

Respondents identified WATSAN committees, RWST and DWST as the institutions needed to establish an interface with the SSPSP programmes. DWSTs in particular should be in charge of supervision and monitoring whilst WATSAN committees should be tasked to identify potential entrepreneurs at the community level.

When the question on the capacity of the private sector operator to perform its role under the proposed SSPSP programme was asked, the answer was in the affirmative. Quizzed further to explain their viewpoint, the respondents indicated that the capacity of the AMs have been tested.

The research team was informed that in one community (Akuave) in the Akatsi district, an AM was called upon to resolve a problem one week after the installation of a pump on a borehole. The respondents supported their assertion with the dedication to duty exhibited by the private operators. All respondents indicated that given a little training and push, the small scale private operators could live up to expectation.

When respondents' views were sought on the expected role of specified institutions in the award of contract, this were the responses given:

MLGRD: Since the DAs operate under the umbrella of the MLGRD, coupled with the small contract sums for small scale private sector activities their direct involvement will not be necessary.

CWSA: By law, it is the government agency responsible for rural water delivery and so should be directly involved in the award of contracts. In addition, the organization has the required expertise to support the DAs in the process for the award of these contracts.

DA/DWSTs: The DAs should be the main body in charge of contracts because it represents the government at the local level in the decentralisation structure. This in addition to the fact that the DAs would implement and supervise all contracts awarded.

WATSAN Committees: Respondents felt that this body does not have the technical capacity to assess the suitability of contractors bidding for jobs. Respondents also expressed concerns about some of these members divulging confidential information on tender evaluation results.

3.3.2.3 Level of Awareness – Financial

According to respondents, the DAs finance rural water supply through the allocation of a percentage of the District Assembly Common Fund (DACF) towards the construction of water facilities. They were however, of the opinion that, the allocated percentage is not adequate and therefore both long and short term strategies should be adopted in the financing of rural water. Some of the short term strategies they felt could be adopted are :

- The opening of a separate account for rural water and monies solicited from philanthropists, religious bodies, and community fund raising.
- The celebration of water day locally during which appeal for funds would be made

On long term strategies, respondents suggested the creation of a revolving fund at the DA level.

On the question of how the small scale private sector could independently finance rural water supply, respondents were of the view that, SSPS operators should seek assistance from their relatives. Secondly, they suggested the formation of associations on the lines of a credit union from which members could borrow to finance their activities. It was also suggested that private sector operators could join existing credit unions.

It was the general view of respondents that unless the small scale private entrepreneurs are assisted financially they would encounter problems in the acquisition of start-up capital for their activities. This phenomenon could kill all other initiatives with respect to propping them.

As to what factors should guide the pricing of water in the rural areas, the income levels of communities, cost of spare parts, the size of the population in a community and the incidence of a likely epidemic were some of the factors respondents thought were worth considering.

3.3.2.4 Capacity Building

Similar to views expressed by the national government officials, the local government officials our team spoke to expressed reservation of the capacity of the private sector to undertake certain assignments (e.g geophysical surveys and borehole drilling) with respect to the provision and maintenance of rural water facilities given their present level of expertise.

Regarding the crucial role to be expected from the SSPS entrepreneurs, further training was seen to be an integral component of the capacity building of private sector. It was proposed that the RWST in collaboration with DA/DWST should organize training programmes for the SSPS operators. Participants for such training programmes should be community based, honest and dedicated. It was also suggested that all participants should have completed first cycle of formal education (Junior Secondary School)

It was suggested that the RWST should be in charge of certification and licensing of participants for the training programmes. The RWST should also be responsible for the development and distribution of the training manuals.

With respect to quality assurance, mechanisms exist for monitoring and supervising the activities of the private operators by the DWST within the framework of an agreed work plan prepared by the private operators. Based on the agreed work plan periodic meetings are organized during various stages to review progress of work.

On Operation and maintenance of facilities, the team was informed that the technical staff at the district level perform periodic borehole yield and pipe leakage tests.

Our discussions with the DWST indicated that the communities use basic indicators like colour, taste and hardness of water to judge the quality of water.

3.3.2.5 Dissemination of Information on Guidelines and Reforms

Seminars, workshops, area and community meetings, radio discussions, media (print and electronic) etc were the main tools identified for this.

3.4 Development partners

The survey team distributed the questionnaire to a number of development partners but the officials indicated in appendix C responded and had discussions with the survey team

3.4.1 Knowledge about PSP in Rural Water Delivery

Most of the development partners are actively involved in the financing of rural water delivery. These are in the form of support to local NGOs or to CWSA directly or through the respective ministries such as Local Government and Rural Development, Works and Housing or Finance.

As to why they consider the provision of water as being of paramount importance, it was a common concern that water is life and it is only through the provision of water to the rural communities that rural poverty can be reduced through the reduction of water borne diseases. Another reason was the fact that a large segment of the population reside in the rural areas and are without access to potable water.

Development Partners acknowledge CWSA, DAs, NGOs, the Water Directorate of MoWH, and the communities as the key players involved in the implementation of rural water delivery. There were high expectations for the private sector in their involvement in the water delivery in the rural area. For examples, private sector operators are expected to provide services such as lining of wells, drilling of boreholes, geophysical survey and community mobilization and training. In addition, they are also expected to undertake pump installation, construction of well pads and maintenance of water facilities.

All the respondents conceded that the private sector is confronted with potential challenges capable of impeding the smooth running of their operations. These impediments include limited funds, lack of business management skills leading to poor planning and execution of work, poor communication, misconception of preventive maintenance by the communities, low demand for the services of the private sector due to a low level of awareness. Other challenges mentioned were the slow and frustrating process for the registration of businesses operating at the local level, inability to compete with the big established operators and the delay in effecting payments and in some extreme cases non- payment.

The survey team was informed of the measures being adopted to addressing some of the aforementioned problems. For instance, Water-Aid Ghana, has provided training, funds, equipment and other materials to its partners to beef up the capacity of the private sector operators. There are ongoing consultations with other stakeholders especially CWSA and DANIDA to improve the involvement of the private sector in the water delivery system. Further suggestion of strategies mentioned were business mentoring and better community cooperation through education. It was the view of some of the development partners that many communities still do not appreciate the link between water quality and hygiene and recommended that this should be addressed on a case by case basis.

In reference to government, it was suggested that, government should have the resolve and muscle to translate well formulated policies.

When the impressions of the various development partners were sought on the role of SSPSP in the rural water delivery, they asserted that the SSPSPs are vital to the growth and sustainable delivery of water supply but require support to be firmly operational. Their role in rural water delivery is crucial as small- scale operators are proximate to the communities.

When the development partners were quizzed to comment on the extent of their commitment to the involvement of the private sector in water delivery to rural communities, all but DFID (which has stopped funding rural water supply) pledged their support for the private sector due to the important role they play in rural water delivery and its direct link to poverty reduction.

3.4.2 Level of Awareness among Development Partners- Institutional

The survey revealed that, CWSA, DAs, MoWH, Chiefs/Communities, Water Research Laboratories, Consultants, Other Development Partners and NGOs, are the main collaborators for most of the Development Partners.

It was the general impression that even though the above collaborators are providing useful services in rural water delivery; efficiency and effectiveness are at times very low or completely absent. It was pointed out that the absence of a comprehensive national water policy for Ghana gives room for various organisations to adopt varying approaches which may suit them. The weak harmonisation and co-ordination of approaches among the various stakeholders was also identified as a militating factor against the effectiveness of institutions involved in rural water delivery. It was also indicated that some NGOs intentionally leave loop- holes in their approaches with a view to justifying their existence.

Probing further in the light of reforms in the water sector, all of them felt that some kind of reforms or re-definition of roles and responsibilities may be necessary. Particular mention was made for a definitive role between CWSA, MoWH, and MLGRD. Respondents felt that there is lack of clarity among these institutions hence the call for a re-definition of roles. Also DAs were encouraged to play a more proactive role in rural water delivery.

Some institutions such as the Universities, Polytechnics, the Intermediate Technology Transfer Unit (ITTU), and Techno-Serve were identified as some of the institutions that provide training for the small scale private entrepreneur in rural water delivery. The assessment of these institutions was not readily available as there was no data on them.

It was conceded by most of the development partners that the level of collaboration between the various donors and/or NGOs could be tremendously improved. Approaches, procedures, and standards could be harmonised. It was suggested that there must a platform for effective Donor/NGOs fora to bring together all the main players. There was also the need to harmonise approaches for all donor agencies and NGOs. There should also be the commitment to increase funding generally to the sector and specifically for building the capacity of SSPSPs.

3.4.3 Level of Awareness- Financial

The following table provide answers provided by Development Partners on their financing mechanisms towards the provision of rural water delivery

DANIDA	Funds are channeled through CWSA head office to the District Assemblies, based on approved plans and budget by a Regional Approval Committee located at the RCC
KfW	Funds channeled through Ministry of Finance and Economic Planning(MFEP) to CWSA
Water Aid, Ghana	Cost sharing mechanism between the community and the local NGOs
DFID	Does not directly provide funds to CWSA but rather to MFEP within the multi donor budget support framework. MFEP allocates subvention to CWSA based on their approved budget

While some of the respondents said they are in most cases able to meet their project objectives within the time frame, others answered to he contrary. For such organisations, delays were due to

- delayed process and procedures in project implementation
- problems with the structure and capacity of CWSA
- willingness and ability of communities to contribute to capital and O&M cost

When respondents were asked if there are any known challenges in the financing mechanisms of rural water projects, all of them responded in the affirmative. The problems identified by respondents were (a) limited working capital for the private operators (b) inadequate financing for the sector and (c) low community's commitment to O&M contributions. Apart from these problems, there is also dearth of expertise at the district level. Donors have been in constant dialogue with the government to increase its side of funding to the sector and to show more commitment. In addition, donors have asked for the development of a national policy for financing rural water projects in Ghana.

Development partners expect to source funds from donor agencies and NGOs and to provide financial resources from its own budgetary internally generated income for project implementation. Other respondents were of the view that government should establish a revolving fund from which small scale private sector entrepreneurs can access working capital.

When viewpoints on full cost recovery were sought, most of them felt full cost recovery of rural water supply must be determined on the type of facility being provided. In the case of point sources, they contended that they should be heavily subsidised since most of these facilities are

in very poor communities. They however, support full cost recovery on small towns piped water supply schemes to cover O&M especially in peri urban communities.

3.4.3 Capacity Building

As to whether the private sector possesses all the relevant skills and techniques to manage all aspects on the provision and maintenance of rural water supply, respondents' impressions were that all the required skills do not necessarily have to exist; rather what is there could be developed. They admitted that the skills acquired through the various training programme could be a good starting point upon which further skills could be built. The private sector operator could however acquire further skills from training under the auspices of CWSA, District Assemblies and/or on the job training.

Whilst some development partners especially NGOs felt the existence of some sort of regulatory mechanisms for the construction, installation and maintenance of water facilities, most donors were not very sure. Their understanding was that CWSA has the mandate to ensure standards in terms of quality of the water supplied and for the design criteria etc. In ensuring quality of work, most respondents felt there should be a performance component in the contract which should stipulate sanction for poor performance and reward for good performance. There should be proper contract terms including the mechanism for the termination of the contract.

Respondents felt that DAs with the support of CWSA should determine water quality at the community level. Other regulatory bodies such as Food and Drugs Boards and Standard Board can be of importance. Private entrepreneurs could also be contracted. This is because, though the communities should have the ultimate responsibility, they may not have the knowledge and requisite information to carry out water quality test.

CWSA, and DAs should compile database of very competent, knowledgeable and very resourceful SSPS entrepreneurs. The database information should also include qualities espoused by communities such as honesty, hard work and integrity. These criteria should form the basis of the selection of private sector operators for training.

On the question of who should be in charge of the certification, licensing, development and distribution of training materials, respondents thought the responsibility should rest with CWSA and the DWST. Others also felt private sector operators, consultants or publishers should be in charge so that CWSA will limit itself to setting the standards and playing the supervisory role.

3.4.4 Dissemination of Information

Personnel interviewed felt communities were satisfied with the work provided by the private sector operators. News letters, print and electronic media should form the main avenue for the dissemination of information on the SSPSP ideas. Other channels of information dissemination could be workshops organised by CWSA and DAs.

3.4.5 Opinion and Comments

All interviewees strongly support the idea of SSPSP. They felt that the SSPS operators serve as an interface between communities and public institutions. They are able to respond quickly to the communities since they live in the communities. Most of the institutions were willing to facilitate the push process to get private sector involved in warehousing, stocking and in the distribution of spare parts as part of promoting the decentralized maintenance system with private sector involvement.

4 ANALYSIS AND INTERPRETATION

4.1 Introduction

This section indicates an analysis and interpretation of the observations described in Section 3.

Sub-sector analysis (SSA) of rural water provision is detailed in the form of a diagram showing all the key private sector actors and their relationships within the sub sector. This sub sector map identifies the staffing, administrative and technical constraints and bottlenecks that the sector is experiencing and areas of under-supply or over-demand.

Supply chain maps will be completed for various sets of SMEs involved in rural water supply in the pilot study areas where it is felt that further analysis of their customers, suppliers and other linkages can bring about better understanding and possible benefits.

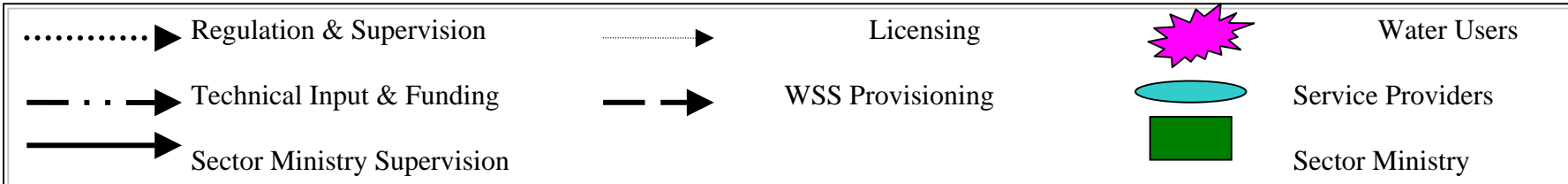
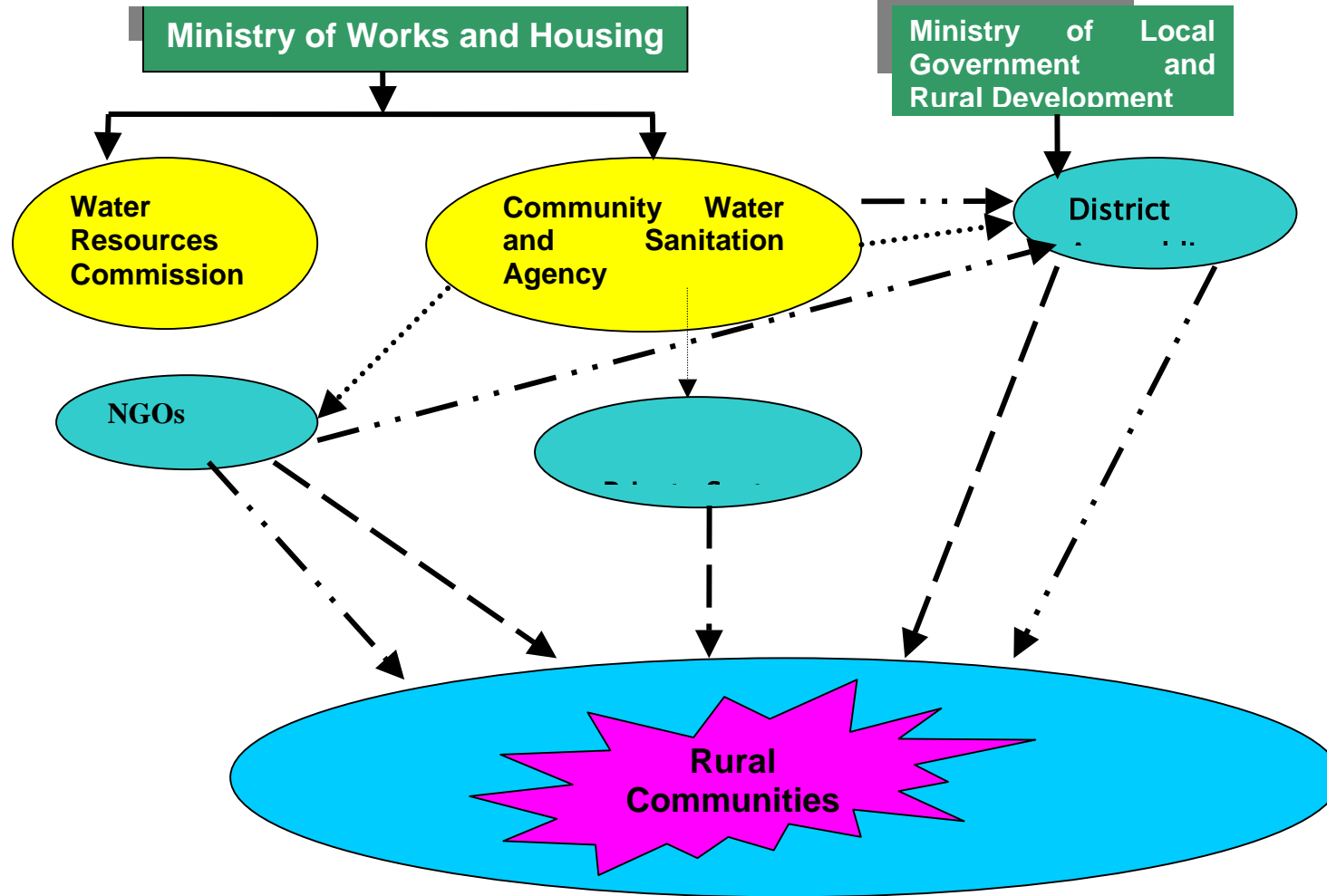
A livelihoods analysis of rural enterprises allows access to finance (financial capital), human resources (human capital) and professional networks (social capital) to be fully understood in the water sector in the study areas.

4.2 Sub - sector Analysis

The organization of the rural water sector is shown in the diagram overleaf. The survey results presented show that there are a number of private sector actors in rural water supply. The private sector actors and their activities are shown in the table below.

Private sector organisations	Activities
Partner Organisations	Training of WATSANs/WSDBs in Community mobilisation / hygiene education
Hydrogeological Consultants	Geophysical studies
Civil Works Consultants	Design and supervision of construction
Drilling Contractors	Drilling boreholes / installation of handpumps Borehole rehabilitation/flushing etc.
Construction Contractors	Laying of pipes and building of reservoirs
Pump Electricians	Installation and repair of submersible pumps on mechanized schemes
Pump/Spare Parts Suppliers	<ul style="list-style-type: none">- Imports the pumps- Custom clearance- Stocks pumps and spares- Distributes pumps to regional dealer- Marketing of the pumps
Hand Pump Spare Parts Dealers	Purchase, storage and distribution of spare parts
Area mechanic	Diagnosis of faults Preventive & routine maintenance of pumps within catchment area

Figure 1: Organisation of the Rural Water Sector

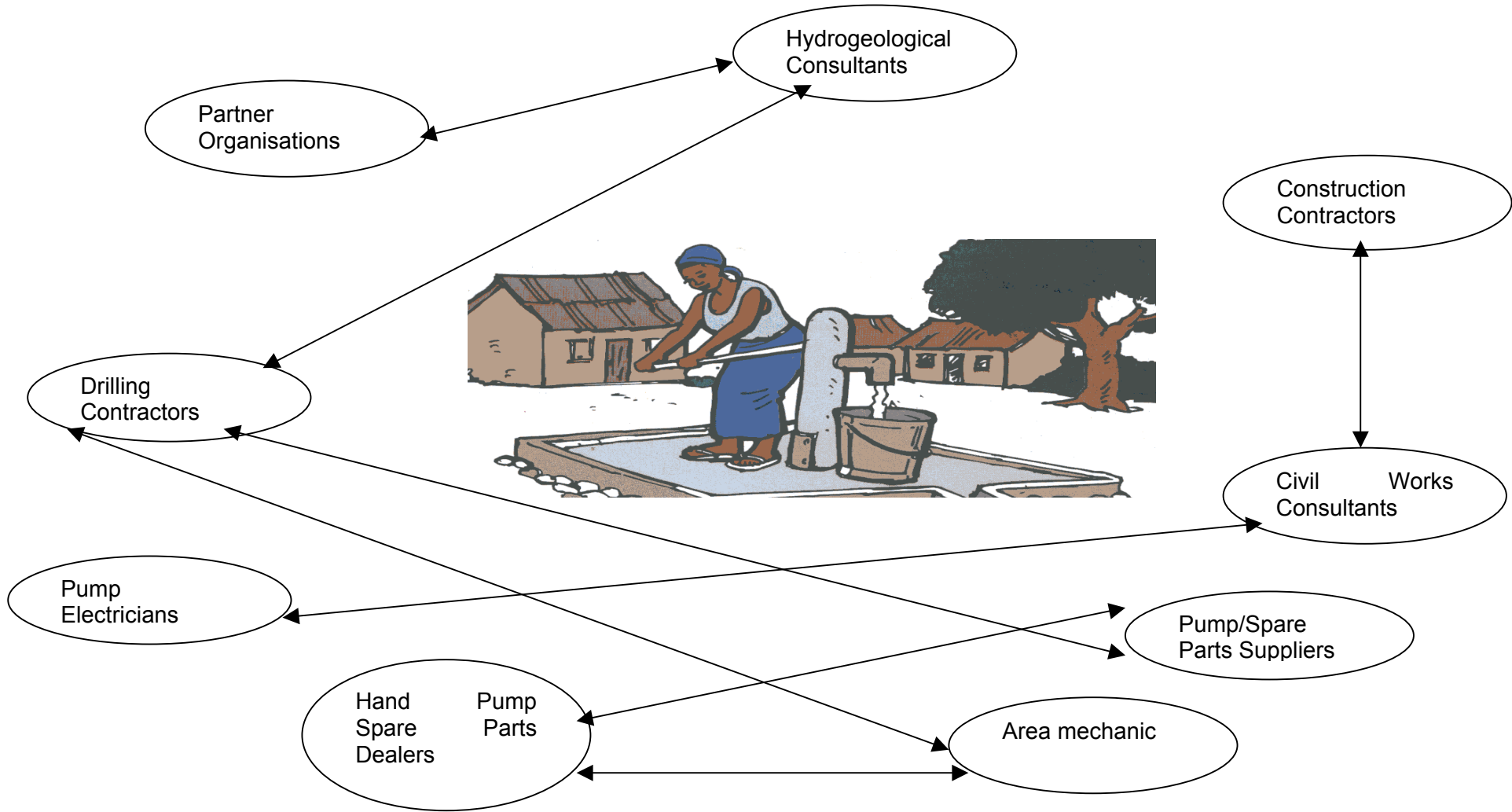


The diagram overleaf shows all the key private sector actors and their relationships within the sub sector.

An analysis of the sub sector shows the bottlenecks facing the private sector and detailed in the table below.

Category	Constraints
Market/ Market development	<ul style="list-style-type: none"> • lack of accurate and dependable information on existing and potential consumer product demand • Absence of critical mass of hand pumps to occupy area mechanics on a full time basis
Technology /Product development	<ul style="list-style-type: none"> • Inadequate equipment to undertake construction activities including borehole drilling
Business Skills	<ul style="list-style-type: none"> • Inadequate training resources to develop human resource base
Policy	<ul style="list-style-type: none"> • CWSA regulation of pricing of goods and services provided
Finance	<ul style="list-style-type: none"> • Cost of equipment very high especially in the case of drilling rigs • Inadequate financial resources to attract and retain staff • Lack of working capital • Lack of access to commercial funding • Inability to provide adequate collateral to banks for loans
Operating Environment/ Infrastructure	<ul style="list-style-type: none"> • Poor road network • Poor access to communication systems • Lack of reliable means of transport

LINKAGES AMONG PRIVATE SECTOR OPERATORS IN RURAL WATER SUPPLY



4.3 Livelihoods of Private Sector Operators

Small private sector operators work on the sector as suppliers of spare parts, area mechanics and technical service providers. In delivering services, they face different constraints and opportunities, in particular, lack access to the formal financial system, lack of information regarding market opportunities, and significant transaction costs as a result of the small size of community works

Area Mechanics

Area mechanics diagnose of faults on pumps and provide preventive and routine maintenance of pumps within a catchment area. Pump mechanics often have an associated profession such as a motorbike or bicycle mechanic or watch repairer. The area mechanics were selected by the DAs and trained by CWSA. After training, the mechanics are provided with tool kits and charge communities for each pump repair carried out. The WATSAN committee reports faults to the area mechanic who purchases the necessary spares and repairs the fault. The mechanic later charges the community for the cost of spares and service provided and charges communities for each pump repair carried out. Demand for the services of area mechanics is not very high in the communities since the O & M system has not developed considerably. Preventive maintenance has therefore not been well understood by the communities. This has created low demand for the services of private sector due to low level of awareness.

Hand Pump Spare Parts Distributors

Hand pump spare parts distributors purchase, store and distribute pump spare parts. Distributors, as an element of the spare parts network, collect parts from FAM, the National Supplier, stock them and sell to the area mechanics. The volume of sales has not been tremendous due to the limited availability of fast moving parts, the low turnover and profitability challenges regarding the supply of spare parts as a business activity. In the case of one such parts business, DIT Services Ltd, the company provides flushing and fishing services and also manufactures various pump components and further developed the DIT Wonder Pump (a hand pump made entirely from locally available materials)

Pump Electricians install and repair submersible pumps on mechanized schemes

Social Capital

There were no reported trade associations or networks belonging to small rural water service providers. They therefore did not enjoy any enhanced social capital. There is however, some relationships of trust and reciprocity between the service providers and District Assemblies and communities.

Financial capital

From focus group discussions and questionnaires it emerged that the small scale service providers felt that a major limitation to their businesses is lack of working capital. They mentioned that lack of access to credit was a factor which has not allowed them to expand on their business. They explained that, the banks demand business proposals and collateral which the average small scale service providers might not be able to produce.

Human Capital

A number of the respondents interviewed have had only basic education. It was, however evident that most of the small scale operators had benefited from training interventions undertaken by CWSA through private training institutions. They however complained about lack of management and book keeping skills.

Policies, Institutions and Processes

Government policy aspirations for micro- and small enterprise employment

Government of Ghana recognises the role of the MSE informal sector in the creation of employment opportunities, mitigation of unemployment—and subsequent decline in poverty. It therefore aims to shore up the MSEs sector through economic, financial and regulatory policies that will make available an enabling environment for sustainable growth and development.

Business registration issues

Formal registration of a company or business enterprise is very expensive and time-consuming to achieve. It also exposes a business to regulation and taxation that would render the majority of operatives in the informal sector, area mechanics and electrical artisans.

Key Institutions and Organisations for the small scale service providers

In the questionnaires, the key institutions and organisations that work directly or indirectly with small scale service providers included DANIDA, CWSA, DAs, Chiefs/Communities, Consultants and NGOs

4.4 Supply chain map

Section 4.4 presents supply chain maps for pump repairs, borehole drilling, pump and pump parts and finally on the financing/ disbursement of funds for rural water supply.

The private sector (spare parts distributors and area mechanics) plays a pivotal role in ensuring the supply of rural water goods and services. The supply chain for spare parts is long because it often involves importation of these parts. Demand for products and services can be low due to cost of spare parts and lack of local availability

Prices of spare parts are determined by CWSA and different parts have diverse profit margins ranging between 0% and 70%. CWSA has set the maximum amounts to be charged by area mechanics for different types of work including above groundwork and below ground.

The turnover of spare parts is considerably sluggish and the volume is so low to solely concentrate on parts as a profitable business. In the case of area mechanics, the demand for services is dependent on the breakdown or preventive maintenance of the facility. It is however indicated that cash flow from the community is seasonal, reliant on crop harvesting and so investments are more within their resources right away following the harvest. As a coping mechanism, spare parts distributors and area mechanics ensure they do not depend on one single service or product for their livelihood.

Spare parts distributors are expected to pay in advance for stock. Lack of access to finance is a major barrier to spare parts distributors in their bid to purchase enough fast moving stocks for their business. The problem of finance is also akin to area mechanics.

A key constraint for small businesses in the rural water supply chains is the lack of accurate and dependable information on existing and potential consumer product demand. This situation has reduced private sector confidence in the market and therefore a disincentive to invest. In some cases, financial institutions, as a result of lack of information, have found the small rural enterprise service market an uncertain investment and not confident to provide the needed credit.

In the study area, the lack and inadequate transport and communication infrastructure is a main impediment to the improvement of small scale private sector supply chains and markets in the rural water sector. Operators in the chain incur extra costs and thereby reduce the viability and right inventiveness of the chain.

In order for private sector operators to fulfill their important role in the supply chain, a number of key factors are necessary. Demand is the basic part for the creation of a successful supply chain for rural water supply. A supply chain is geared towards the supply goods and services which are in response to customer demand for these goods. Therefore, devoid of adequate demand, such a supply chain will not build up and operate sustainably. Effective demand is however dependent on the intended purpose the product is expected to achieve, its price, quality and consumer knowledge of the product.

Another factor is the key motive of the private sector to maximise profit and the supply chain should create the environment to attain this. The profit made would require small scale private sector operators to discover and realise business opportunities when they present themselves. The ability to determine business opportunities would depend on the need for private sector operators access to information relating to existing and potential consumer demand, population densities, existing supply chains and infrastructure.

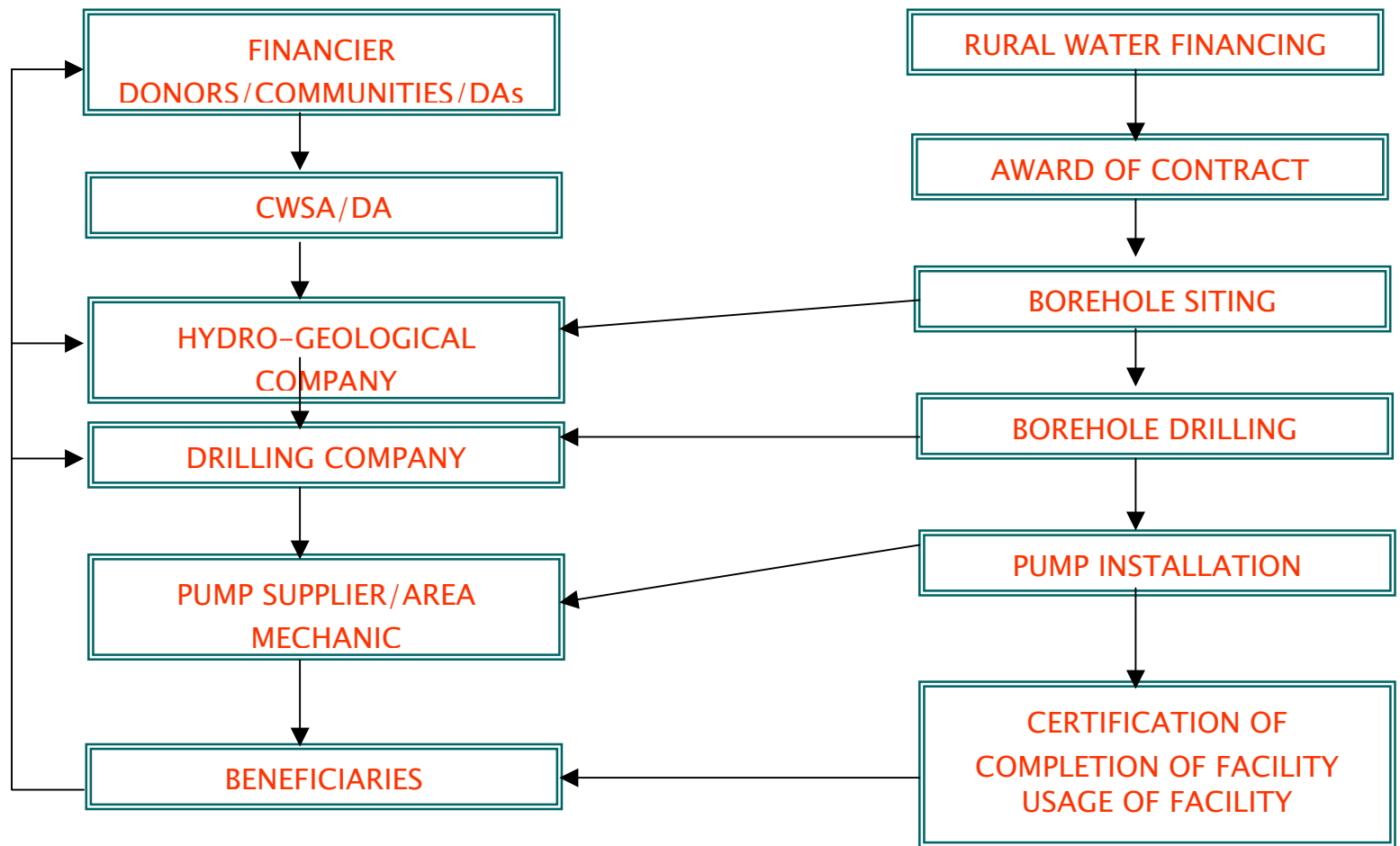
The private sector role in supply chain in rural water supply can thrive on development and maintenance of an effective information flow among key stakeholders. There is the need to improve and sustain access to such information. An effective supply chain management system would help the private sector by building useful interaction between stakeholders, improving communications, discovering and growing potential partners in the chain and creating a collaborative environment for planning.

The private sector would need an enabling environment to perform creditably within the supply chain. This enabling business environment should consist of a financial environment that has suitable financial products that meets the needs of the small scale sector and confidence of financial institutions in the rural water sector. The development of infrastructure including a good and reliable road and telecommunications network will help develop private sector supply chains within rural water sector. An enhanced business environment should also bring into play effective support mechanisms through the use of business development services that offer the skills and training essential to help the small private sector operators build up and spread out. Above all, there is the need for a regulatory environment which would manage the quality and prices of services and goods provided.

SUPPLY CHAIN FOR PUMP REPAIRS

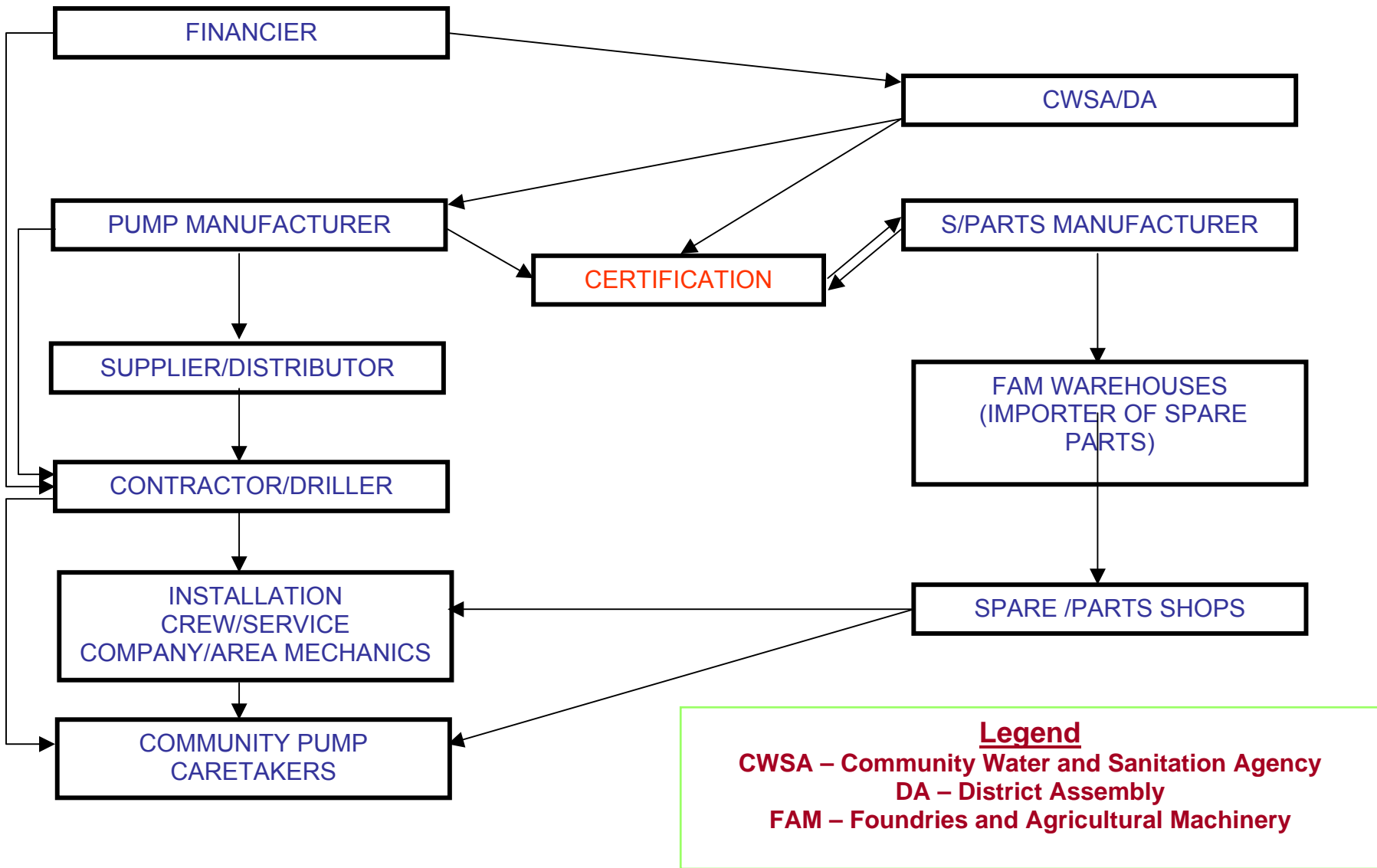


SUPPLY CHAIN FOR BOREHOLE DRILLING

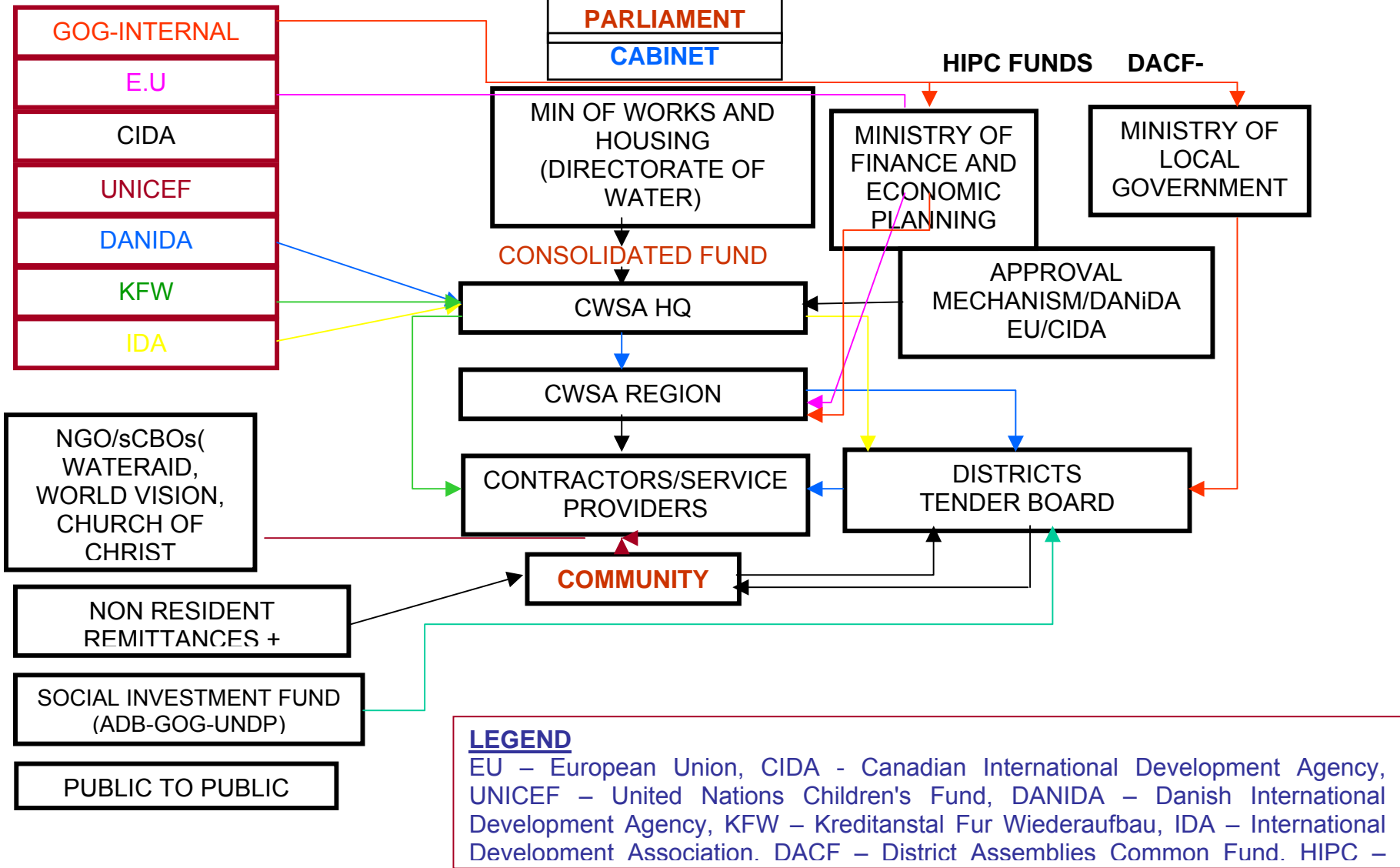


Legend
CWSA – Community Water and Sanitation Agency
DA – District Assembly

SUPPLY CHAIN FOR PUMP AND PUMP



SUPPLY CHAIN MAP FOR RURAL WATER FINANCING /DISBURSEMENT OF FUNDS



4.5 Capacity of government

Within the framework of Ghana's decentralisation programme, this section would be explored from the perspective of central and local government.

The Ministry of Works and Housing is responsible for the initiation and formulation of policies and strategies, co-ordinating of budgeting, monitoring and evaluation to make certain the efficiency and performance of the water sub-sector.

The Community Water and Sanitation Agency (CWSA) is the body responsible for facilitating the provision of safe water and related sanitation services to rural communities and small towns. The regional level staff, referred to as Regional Water and Sanitation Team (RWST) is responsible for regional level coordination and facilitation and also supports districts to implement projects initiated by CWSA.

CWSA regulates the activities of the private sector in a number of ways:

Software issues

Community mobilisation and training

The private sector is responsible for community mobilisation and training for all projects instituted by CWSA. CWSA monitors and quality assures the training and community mobilisation activities of Partner Organisations/ Technical Assistants (POs/TAs) contracted to undertake extension services. POs/TAs include local NGOs and SMEs.

Training materials

Where required training materials (e.g. WATSAN Handbook) are developed with the approval of CWSA. The facility management plans (FMPs) have also been designed exclusively by CWSA for use by the POs/TAs. The essence of this is to ensure uniformity through regulation.

Technical Issues

Hand pumps

CWSA has standardised four hand pumps for use on its projects in the country. The specifications of these pumps are also prepared by CWSA.

Spare parts distribution

CWSA has contracted a private entrepreneur, Foundries and Agricultural Machinery (FAM) to import and distribute spare parts for hand-dumps. FAM has established a national wholesale and has also facilitated the establishment of four regional warehouses with seed money provided by DANIDA and KfW. Both CWSA and FAM are currently engaged in the distribution and licensing of authorised distributors at the district level.

Training and licensing of area mechanics

The training and licensing of area mechanics (AM) is regulated by CWSA. The private sector, under the national community water and sanitation sector policy is responsible for the provision of goods and services and area mechanics are required to repair and maintain all facilities. An area mechanic is a private sector operator with expertise in the repair and maintenance of below and above ground components of the hand pump. The area mechanic is provided with tools by CWSA.

Supervision of hand pump caretaker training

CWSA is responsible for supervising the training of hand pump caretakers which is usually undertaken by pump manufacturers or suppliers. Training manuals are currently being prepared by CWSA to regulate the training content of area mechanics and pump caretakers.

Completion certificate

Beneficiary communities are expected, as part of the regulatory mechanism to sign completion certificates for construction activities undertaken in their communities. This is complementary to the supervisory role of private consultants, CWSA and District officials.

Water quality testing

Within the broad framework of its regulatory function, CWSA facilitates water quality testing for each water facility provided. The idea is to ensure that the physico-chemical and bacteriological parameters of water are within World Health Organisation (WHO) maximum permissible limits.

Functionality

Periodically, CWSA facilitates the implementation of functionality studies of water facilities. The rationale behind this is to find out the durability and state of performance of facilities provided and secondly, to assess the quality of water provided. Even though this is not a regular practice, under the KfW financed Accompanying Measures Eastern Region (AMER) project, a limited functionality study was undertaken in 1997-98 (IGIP Consulting Engineers, AMER 2001).

District Assemblies

Within the framework of Ghana's decentralisation programme, District Assemblies are responsible for the implementation of all development activities (water supply inclusive) in the District. Consistent with this objective, CWSA expects each DA to establish a District Water and Sanitation Team (DWST). Even though the Local Government Act (Act 462) of 1993 does not include the DWST as one of the statutory departments of DAs, the DWSTs established have been performing their functions as "de facto" departments. Communities are required to set up a water and sanitation (WATSAN) committee to manage the facilities provided by donors and other NGO's including Water Aid.

Constraints

The current practice of a project by project approach in the delivery of water facilities is stuffed with several donors each with its own Project Units, with their own procedures, rules and requirements for planning, procurement, reporting and monitoring. As a consequence the linkages between sector development and central planning and budgeting processes are weak.

GoG funding has been restricted to funding the operational budget of CWSA. This raises considerable anxiety for the sustainability of investments in the sector should donor funding unexpectedly get parched.

CWSA is saddled with non-conformity of some NGOs with the National Strategy. Divergent procedures include the demand responsive approach in which a project is initiated at the request of the community, technology choice made by community, community contribution to capital cost of installation, community collection and management of maintenance funds, community level maintenance and local technical backup and private sector provision of spare parts and specialist services.

Inadequate private sector firms with the requisite technical and financial capacity to deliver projects is a major constraint in the sector.

At the district level, constraints identified include inadequate support from the District Assemblies, inadequate technical and financial capacity at the District Assemblies level to implement and monitor water and sanitation programmes and projects, delay in establishing District Assembly Works Departments and difficulty by some communities to pay the 5% contribution to capital cost of facilities.

4.6 Need for Guidelines

The survey clearly indicates the need for guidelines for small scale private sector participation in the rural water supply sector. The guidelines should produce tangible tools for decision makers, project planners and implementers on key issues, such as the establishment of principles that encourage the successful private sector participation, creating an enabling environment that allows local commercial networks to operate successfully and developing strategies and action plans for the successful and sustainable integration of small scale private sector participation in the rural water supply sector. The guidelines developed must address issues on institutional and policy, legal and financial conditions and arrangements in detail and stipulate appropriate goals. This engagement should actively involve Government, District Administration, communities, donors, rural private sector and NGOs

The guidelines should create opportunity for a process of reform and engagement of stakeholders to provide the environment in which a range of legal, financial and institutional prerequisite conditions for effective private sector involvement can be mutually explored. The guidelines should also produce an opportunity for all of the stakeholders to assess their roles, responsibilities and progress within the emerging government system.

5. OBSERVATIONS AND CONCLUSIONS

5.1 Introduction

Observations and conclusions are made under the following headings:

- Legal framework
- Institutional framework
- Financial framework

5.2 Legal framework

The following observations arising from the surveys indicate a shallow knowledge of the existence of any legal framework on the water sector. This was especially very pronounced among the local private sector operators. With the exception of DIT Services that had registered as a limited liability company, none of the operators had registered their activities at the Registrar-General's Department in accordance with the laws of the country. To most of these operators, registering a company was out of the question. The AM in the Nkwanta district indicated that he was contemplating registering his business as a sole proprietorship. It is however important to state that some of the spare parts dealers have registered their mother companies of which the sales of spare parts only forms a small component.

These operators have indicated that their relationship with the DAs/DWSTs is within the framework of the relevant legislation of the DAs.

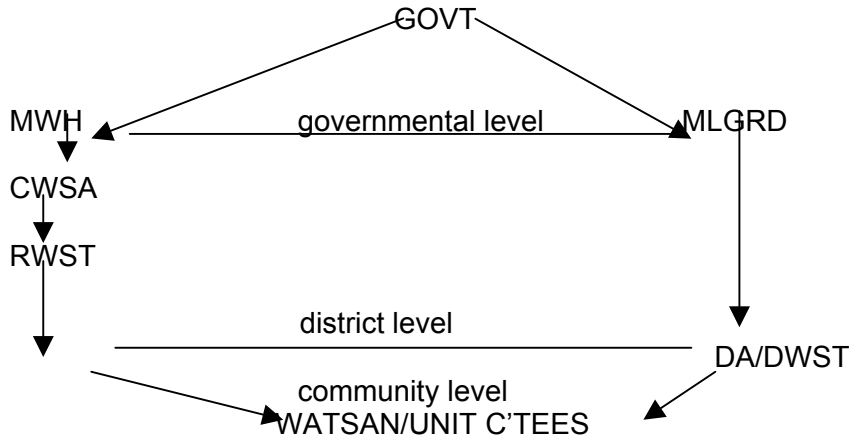
In contrast to the ignorance of the local private sector, the other respondents have a fair knowledge of existing legal framework governing rural water. These respondents however expressed pessimism on the effectiveness or otherwise of the existing legal framework.

From the observations, we conclude that:

- The issue of a legal framework to regulate the activities of the SSPS operators should be treated with urgency
- A committee should be established under the chairmanship of the Director of Water at the MoWH with representatives from CWSA and other stakeholder institutions to draft a policy document to guide the activities of the SSPS
- All stakeholders involved in the provision of rural water should have a stakeholder's workshop to discuss the draft policy document.
- The draft policy document should be part of the national water policy for Ghana

5.3 Institutional framework

From the survey, we can indicate the existence of an adequate institutional framework on which the concept of SSPSP can be effectively anchored.. The major statutory bodies identified and responsible for rural water delivery are CWSA and the DAs/DWSTs. These institutions are linked directly to the communities by WATSAN and indirectly by the Unit committees. While the WATSAN committees are not statutory bodies but a creation of the CWSA as tools of ensuring the sustainability of facilities provided, the Unit committees are statutory institutions created as part of the institutional framework for decentralization. The institutional framework is summarised in the flow chart below



However, there seem to be low harmonisation and duplication of functions between the MoWH and the MLGRD with respect to the rural water sector. Some donors expressed doubts on the capacity of the DAs to implement rural water projects.

Notwithstanding the existence of many stakeholders in the rural water sector, there is no clear cut policy guiding the provision of water facilities in the rural areas by small scale operators. Furthermore, no serious efforts have been made to bring together these institutions to assess their collective contribution with a view to launching a common platform for the implementation of rural water interventions by the small scale operators.

There is no institution responsible for the progressive monitoring of water quality in the rural areas.

From this we conclude the following

- There should be redefinition of the roles of the various Ministries Departments and Agencies (MDAs) involved in rural water delivery.
- The capacities of DA/DWST in relation to the provisions and monitoring of water facilities should be critically assessed.
- The Water Directorate at the MoWH should be encouraged to facilitate the routine meeting of all stakeholders in rural water delivery. Such a forum will afford the various stakeholders the platform to assess their performance in line with the government's overall policy on rural water delivery.
- Periodic water quality monitoring should form an integral part of the operations of CWSA.

5.4 Financial framework

There are laid down mechanisms for payments to small scale service providers such as AMs, pump electricians and plumbers. In most cases WATSAN executives, specifically the chairman and treasurer effect these payments. Despite the existence of the mechanism, all the service providers expressed dissatisfaction with the level of remuneration and felt unfairly treated by CWSA which drew up the guidelines for payment. It was obvious that if any challenging job is offered they will be drifted to it.

Another issue that was observed is the upward adjustment of the prices of spare parts due to inflation and the depreciation of the cedi against the dollar and other major currencies. The reported incidents of AMs returning to their communities because prices of parts had been adjusted beyond their means is a worrying phenomenon.

It was also clear from the survey that the small scale private sector entrepreneurs lack the capacity to raise funds as most of them do not meet the financial requirements needed by most banks for contracting loans. Fashioning a mechanism for supporting the SSPS operators financially, should be one of the key issues to be discussed at the multi stake holder's workshop.

From this we conclude that:

- Financing the small scale private sector operator should strongly feature in the multi-stakeholders' workshop
- The issue of attracting and maintaining rural service providers should be addressed in the stake holders workshop
- Issues relating to the acquisition, pricing and sales of spare parts should be critically examined.
- MDAs as well as NGOs concerned with rural water supply should start serious lobbying to push for a strategy for sustaining rural water supply
- The demand driven approach of rural water intervention should be assessed

5.5 Next steps

The next steps in the project processes are the dissemination of information and observations gathered from the survey. One method of achieving this would be the organization of a multi stakeholders' workshop where an action plan would be formulated and adopted.

APPENDIX A

KaR Study (Phase II)

Questionnaire

CWSA - RWST

A. General Information

- 1. Name of Organisation
- 2. What is your job schedule in this Assembly? -----

- 3. How long have you been at your present position?

B. Knowledge about PSP in Rural Water Supply

- 4. What is the role of your organization in the provision of rural water facilities?

- 5. Who are the key players in the implementation of rural water supply in your region?

- 6. What are the specific roles of the private sector operators in the implementation of rural water supply?

- 7. To what extent is the current arrangement for the delivery of rural water facility effective?

- 8. What role would the CWSA-RWST play in the SSPSP?

9. In your view, what has necessitated the ideas of SSPSP?

C. Level of Awareness

a. Institutional

10. Which institutions should establish interface with the SPSSP programme? Give reasons. (For probing: nature and scope of the interface and oversight responsibility)
11. Does the small scale private sector have the capacity to perform its role under the proposed SSPSP? Yes No Give reasons.
12. What should be the role of the following bodies in the award of contracts?
- a. MLGRD
 - b. MWH
 - c. CWSA
 - d. District Assemblies/DWST
 - e. Community (WATSAN/WSDB/Unit committee)

c. Financial

13. Who are the key players in financing rural water supply?
14. What is the financing mechanism for rural water projects in the region?
15. Are you able to meet your project objectives within the time frame?
16. Are there any challenges in the financing mechanism of rural water projects?
Yes No
17. If yes, what are these challenges?
18. What strategies should be adopted in financing rural water
- a. in the short term
 - b. in the long term
19. How should small-scale private sector operators finance rural water supply projects independently?
20. Do you envisage any financial difficulties with respect to the involvement of SSPSP in rural water supply? Yes No
21. If yes, what are the difficulties?
22. How can such difficulties be overcome?
23. What factors should guide the pricing of water in the rural areas?
- d. Capacity Building**
24. Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply?
Yes No Give reasons.
25. What regulatory mechanisms exist for the construction, installation and maintenance of water facilities?

26. Who is responsible for determining the quality of water at the community level?
27. How should the small scale private sector operators acquire the skills relevant for their participation in the rural water sector?
28. What factors should guide the selection of small scale private sector operators?
29. Who should be responsible for the training, certification and licensing of small scale private sector operators?
30. Who should be in charge of the development and distribution of training manuals?
31. What measures should be put in place to ensure quality of work?

D. Dissemination of information and guidelines and reforms

32. In your opinion, are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers, Hydrogeologists, Service companies
Yes No
33. How should information on private sector activities be disseminated?

E. Opinions and comments

34. What ideas do you have on small scale private sector participation in the rural water sector?

KaR Study (Phase II)

Questionnaire

District Assemblies

A. General Information

- 1. Name of District Assembly
- 2. What is your job schedule in this Assembly? -----

- 3. How long have you been at your present position?

B. Knowledge about PSP in Rural Water Supply

- 4. What is the role of your organization in the provision of rural water facilities?

- 5. Who are the key players in the implementation of rural water supply in your district?

- 6. What are the specific roles of the private sector operators in the implementation of rural water supply?

- 7. To what extent is the current arrangement for the delivery of rural water facility effective?

8. What role would the District Assembly play in the SSPSP?

9. In your view, what has necessitated the ideas of SSPSP?

D. Level of Awareness

a. Institutional

10. Which institutions should establish interface with the SSPSP programme? Give reasons. (For probing: nature and scope of the interface and oversight responsibility)

11. Does the small scale private sector have the capacity to perform its role under the proposed SSPSP? Yes No Give reasons.

12. What should be the role of the following bodies in the award of contracts?

a. MLGRD

b. MWH

c. CWSA

d. District Assemblies/DWST

e. Community (WATSAN/WSDB/Unit committee)

c. Financial

13. What is the role of the DA in financing rural water supply?

14. What strategies should be adopted in financing rural water

f. in the short term

g. in the long term

15. How should small-scale private sector operators finance rural water supply projects independently?

16. Do you envisage any financial difficulties with respect to the involvement of SSPSP in rural water supply? Yes No

17. If yes, what are the difficulties?

18. How can such difficulties be overcome?

19. What factors should guide the pricing of water in the rural areas?

d. Capacity Building

20. Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply?

Yes No Give reasons.

21. What regulatory mechanisms exist for the construction, installation and maintenance of water facilities?

22. Who is responsible for determining the quality of water at the community level?

23. How should the small scale private sector operators acquire the skills relevant for their participation in the rural water sector?

24. What factors should guide the selection of small scale private sector operators?

25. Who should be responsible for the training, certification and licensing of small scale private sector operators?

26. Who should be in charge of the development and distribution of training manuals?

27. What measures should be put in place to ensure quality of work?

D. Dissemination of information and guidelines and reforms

28. In your opinion, are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers, Hydrogeologists, Service companies

Yes No

29. How should information on private sector activities be disseminated?

E. Opinions and comments

30. What ideas do you have on small scale private sector participation in the rural water sector?

KaR Study (Phase II)
Questionnaire
Government

A. General information

1. Name of Organisation
2. What is your job schedule in this organisation?
3. How long have you been at your present position?

B. Knowledge about PSP in Rural Water Supply

4. What is the role of your organisation in the provision of rural water facilities?
5. To what extent is the current arrangement for the delivery of rural water facility effective? Give reasons.
6. Has the government fashioned a policy on the involvement of small scale entrepreneurs in the rural water sector?
Yes No
7. If yes, what are the main ingredients of the policy?
8. What is the time frame for the implementation of the policy?
9. Have there been any meetings/seminars/workshops on SSPSP?
Yes No
10. If yes, which bodies were represented?
11. What were the key issues discussed?
12. Was there consensus on the issues discussed? (ask for seminar reports and/communiqué)
13. What role would your organisation play in SSPSP?
14. In your view, what has necessitated the idea of SSPSP?

C. Level of Awareness

a. Legal

15. What is the existing legal framework under which the rural water sector operates?
16. How effective is the existing legal framework with respect to SSPSP?
17. How effective does the current water law address the issue of extraction, usage and management of water resources in the country?
18. Should there be separate water laws for urban water and rural water?
19. How can the implementation of water legislation be made more effective?

b. Institutional

20. Which institution should establish interface with the SSPSP programme? Give reasons. (for further probing: nature and scope of interface and oversight responsibility)
21. Does the small-scale private sector have the capacity to perform its role under the proposed SSPSP? Yes No Give reasons.

22. What should be the role of the following bodies in the award and supervision of contracts?
- MLGRD
 - MWH
 - CWSA
 - DA/DWST
 - Community (WATSAN/WSDB/Unit committees)

c. Financial

23. What is the role of government in financing rural water supply?
24. What strategies should be adopted in financing rural water
- in the short term
 - in the long term
25. How should small-scale private sector operators finance rural water supply projects independently?
26. Do you envisage any financial difficulties with respect to the involvement of SSPSP in rural water supply? Yes No
27. If yes, what are the difficulties?
28. How can such difficulties be overcome?
29. What factors should guide the pricing of water in the rural areas?

Capacity Building

30. Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply?
Yes No Give reasons.
31. What regulatory mechanisms exist for the construction, installation and maintenance of water facilities?
32. Who is responsible for determining the quality of water at the community level?
33. How should the small private sector operators acquire the skills relevant for the participation in the rural water sector?
34. What factors should guide the selection of small-scale private sector operators?
35. Who should be responsible for the training, certification and licensing of small-scale private sector operators?
36. Who should be in charge of the development and distribution of training materials?
37. What measures should be put in place to ensure quality of work?

D. Dissemination of information on guidelines and reforms

35. In your opinion, are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers Hydrogeologists Service companies
Yes No
36. How should information on private sector activities be disseminated?

E. Opinions and comments

37. What ideas do you have on small-scale private sector participation in the rural water sector?

KaR Study (Phase II)

Questionnaire

District Assemblies

A. General Information

35. Name of District Assembly

36. What is your job schedule in this Assembly? -----

37. How long have you been at your present position?

B. Knowledge about PSP in Rural Water Supply

38. What is the role of your organization in the provision of rural water facilities?

39. Who are the key players in the implementation of rural water supply in your district?

40. What are the specific roles of the private sector operators in the implementation of rural water supply?

41. To what extent is the current arrangement for the delivery of rural water facility effective?

42. What role would the District Assembly play in the SSPSP?

43. In your view, what has necessitated the ideas of SSPSP?

E. Level of Awareness

a. Institutional

44. Which institutions should establish interface with the SSPSP programme? Give reasons. (For probing: nature and scope of the interface and oversight responsibility)

45. Does the small scale private sector have the capacity to perform its role under the proposed SSPSP? Yes No Give reasons.

46. What should be the role of the following bodies in the award of contracts?

- a. MLGRD
- b. MWH
- c. CWSA
- d. District Assemblies/DWST
- e. Community (WATSAN/WSDB/Unit committee)

c. Financial

47. What is the role of the DA in financing rural water supply?

48. What strategies should be adopted in financing rural water

- a. in the short term
- b. in the long term

49. How should small-scale private sector operators finance rural water supply projects independently?

50. Do you envisage any financial difficulties with respect to the involvement of SSPSP in rural water supply? Yes No

51. If yes, what are the difficulties?

52. How can such difficulties be overcome?

53. What factors should guide the pricing of water in the rural areas?

d. Capacity Building

54. Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply?
Yes No Give reasons.
55. What regulatory mechanisms exist for the construction, installation and maintenance of water facilities?
56. Who is responsible for determining the quality of water at the community level?
57. How should the small scale private sector operators acquire the skills relevant for their participation in the rural water sector?
58. What factors should guide the selection of small scale private sector operators?
59. Who should be responsible for the training, certification and licensing of small scale private sector operators?
60. Who should be in charge of the development and distribution of training manuals?
61. What measures should be put in place to ensure quality of work?

D. Dissemination of information and guidelines and reforms

62. In your opinion, are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers, Hydrogeologists, Service companies
Yes No
63. How should information on private sector activities be disseminated?

E. Opinions and comments

64. What ideas do you have on small scale private sector participation in the rural water sector?

KaR Study (Phase II)
Questionnaire
Development Partners (Donors and NGOs)

A. General information

1. Name of Development partner/organisation
2. How long has your organisation been involved as a financier in the rural water sector in Ghana?

B. Knowledge about PSP in Rural Water Supply

3. What is the organisation's role in the provision of rural water supply in Ghana?
4. Why does your agency/organisation consider the provision of rural water crucial?
5. Who are the key players in the implementation of these projects?
6. What are the specific roles of the private sector in the implementation of rural water supply?
7. Specifically, what are the roles for the small scale private sector operators in the implementation of rural water supply?
8. Are you aware of any impediments/challenges confronting the small scale private sector?
Yes No
9. How have they been addressed?
10. What are your impressions on the role of SSPSP in the rural water delivery?
11. Does your organisation intend to continue to involve the small scale private sector in water delivery in the rural areas? Give reasons.

C. Level of awareness

a. Institutional

12. In the area of rural water supply, which institutions have you been collaborating with?
13. What are your impressions about the capacity of these institutions to effectively deliver rural water?
14. In the light of reforms in the water sector, would you recommend a restructuring of the institutional arrangement for rural water delivery? Give reasons.
15. Are you aware of the institutions which provides training support to the small scale private sector? Yes/No. If yes, please name them.
16. Are you satisfied with the capacity of these training institutions to adequately support small scale operators? Give reasons
17. What collaboration do you expect to exist between the various donor agencies and/or NGOs to strengthen the participation of small scale private sector operators in rural water delivery?

c. Financial

18. What is the financing mechanism for rural water projects supported by your organisation?
19. Are you able to meet your project objectives within the time frame?
20. Are you aware of any challenges in the financing mechanism of rural water projects?
Yes No

21. If yes, what are these challenges and what measures have been instituted to meet them?
22. What role(s) do you expect the government and the communities to play in financing rural water delivery?
23. What is your organisation's position on full cost recovery of rural water supply?

d. Capacity building

24. Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply? Yes No . Give reasons.
25. What regulatory mechanisms exist for the construction, installation and maintenance of water facilities?
26. Who is responsible for determining the quality of water at the community level?
27. How should the small private sector operators acquire the skills relevant for the participation in the rural water sector?
28. What factors should guide the selection of small scale private sector operators?
29. Who should be responsible for the training, certification and licensing of small scale private sector operators?
30. Who should be in charge of development and distribution of training materials?
31. What measures should be put in place to ensure quality of work?

D. Dissemination of information

32. In your opinion, are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers, Hydrogeologists, Service companies
Yes No

33. How should information on private sector activities be disseminated?

E. Opinions and comments

34. What ideas do you have on small scale private sector participation in the rural water sector?
35. In what ways is your organisation a key facilitator of SPS?

KaR STUDY (Phase II)
Questionnaire
Private Sector

A. Personal data

1. Sex Age
2. What is your occupation?
3. Employment status
 - (a) Self employed
 - (b) Employee
4. If you are not self-employed, who is your employer?
5. How long have you been practising this profession
6. Apart from your main occupation, are you engaged in other subsidiary work?
Yes , No
7. If yes, what do you do?
8. (a) How much do you make from activities in the water sector?
(b) How much do you make from other activities?

B. Knowledge about PSP in Rural Water Supply

9. Do you play any role in the delivery of water in the district? Yes No.
10. If yes, what role do you play? -----

11. Have you attended any meeting on the rural water sector? Yes No.
12. Who were the organisers and/or the sponsors?
13. What were some of the main issues discussed? -----

14. What is the relationship between issues discussed and your occupation?

15. What role(s) are you likely to assume which are different from your current role(s) in the delivery of rural water supply? -----

16. Who are the main players in rural water supply in your district/community? -----

17. What are the functions carried out by each player? -----

18. Do you foresee any major changes in rural water delivery in the near future?
Yes No.

Give reasons.

C. Level of Awareness

a. Legal

19. (a) Have you registered your organisation? Yes No

(b) What sort of registration?

© Was it difficult? Yes No

(d) If yes, what problem did you have?

20. Where?

21. Are your activities regulated? Yes No If yes, by whom and how?

22. What are the mechanisms for regulation?

b. Institutional

23. Where do you normally obtain contracts for work?

24. What role does the DA play in the award of contract? -----

25. Apart from the award of contracts, are there other functions they carry out in the overall water delivery? Yes No

26. If yes, what are the functions? -----

27. Do you interact with any recognised bodies at the community level?

Yes No

28. If yes, who are they and what functions do they perform?

29. What could help communities to work better with the private sector?

30. Are you aware of any activities undertaken in the communities before the water facility is finally provided? Yes No.

31. If yes, what are some of these activities and who undertakes them? ? -----

32. How are these water facilities in the communities managed and maintained? -----

33. Have the communities encountered challenges in the management and maintenance of these facilities? Yes No

34. If yes, what were some of these challenges and how were they addressed? -----

35. To what extent were you personally involved in meeting these challenges? -----

c. Financing

36. Who pays you for services rendered/goods supplied?

37. Are your rates/fees determined by anybody? Yes No

38. If yes, do you find this acceptable? Give reasons for your answer. -----

39. Do you pre finance your services rendered/goods supplied? Yes No

40. If yes, what is the minimum and maximum period for repayment? -----

41. Have you ever faced any challenges in prefinancing your activities?

Yes No.

If yes, what were these challenges and how did you overcome them?

42. How long does it take you to be paid after providing/supplying services or goods?

43. Which institutions finance rural water projects in your district? -----

44. What are the financing arrangements?

- Government/DA
- Donor (who? how does it work?)
- Communities – how (receipts, in kind, cash etc.)

45. What is the extent of communities' financial obligations in rural water projects?

46. How do communities raise their funds to meet these obligations?

47. In your opinion, will the involvement of the private sector in rural water projects enhance efficiency? Yes No

Please state your reason.

d. Technical

48. What water supply systems are you familiar with? -----

49. Have you been trained to repair any of these? Yes No

50. If yes, which one?

51. Have you supplied parts of any of the systems you are familiar with?

Yes No

52. If yes, which spare parts? -----

53. Where did you obtain these parts? -----

54. Have you encountered any challenges in the acquisition of these materials?

Yes No

If yes, what are these challenges?

55. Have you repaired any of the water systems you are familiar with? Yes No

56. If yes, which system(s)? -----

57. How did you acquire your knowledge on the use/construction/repairs/maintenance of these water facilities?

58. Have you encountered any technical challenges in the supply of goods and services/maintenance of water facilities? Yes No

59. If yes, what are some of these challenges and how did you overcome them?

60. Who is responsible for quality assurance of your work in the communities?

61. How is the quality of water provided ascertained and maintained? -----

e. Capacity building

62. Have you participated in any training programmes on rural water supply activities?

Yes No

63. If yes, who organised the training programme and what were the key issues discussed?

64. How has the training programme affected your performance in the water sector?

65. How could various small-scale private sector operators obtain stronger bargaining power in water sector?

66. Is there an association of small-scale operators in your district? Yes No

67. If yes, what is your membership strength?

68. Do you have regular meetings and programmes for your members? Yes No

69. If yes, what are some of the topics you discuss during your meetings?

70. To what extent can you handle all the jobs with respect to water supply? (construction, installation and maintenance).

71. Are you prepared to stay in your present job? Yes No Give reasons.

D. Dissemination of information on guidelines and reforms

72. In your opinion, are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers, Hydrogeologists Service companies
Yes No

73. If no, what are the main issues?

74. How should information on private sector activities be disseminated?

Opinions and Concerns

75. What ideas do you have on small scale private sector participation in the rural water sector?

KaR Study (Phase II)

Questionnaire

Communities

A. General Information

1. Name of Community
2. Existence of WATSAN/WSDB in community -----
3. Types and number of water facilities in community

B. Knowledge about PSP in Rural Water Supply

4. What is the role of your community in the provision of rural water facilities?

5. Who are the key players in the implementation of rural water supply in the community?
(probe further for interviewees to come out with public and private sector operatives)

6. What are the specific roles of the private sector operators in the implementation of rural water supply?

7. To what extent is the current arrangement for the delivery of rural water facility effective?

F. Level of Awareness

a. Institutional

- 8. What should be the relationship between the community and small scale private sector?
- 9. Does the small scale private sector have the capacity to perform its role under the proposed SSPSP? Yes No Give reasons.
- 10. What should be the role of the community in the award of contracts?

c. Financial

- 11. What is the role of the community in financing rural water supply?
- 12. What strategies should be adopted in financing rural water
 - a. in the short term
 - b. in the long term
- 13. Who in your opinion should pay for the services of the small scale private sector operator? Please state reasons.
- 14. What factors should guide the pricing of water in your community?

d. Capacity Building

- 15. How do you make sure the quality of construction, installation and maintenance of water facilities in the community is good?
- 16. Who is responsible for determining the quality of water at the community level?
- 17. How should the small scale private sector operators acquire the skills relevant for their participation in the rural water sector?
- 18. Who should select small scale private sector operators to work in your community?
- 19. What factors should guide such selection?
- 20. What measures should be put in place to ensure quality of work?

D. Dissemination of information and guidelines and reforms

- 21. Are community members satisfied with the provision of goods and services in the rural water sector by locally based service providers such as NGOs, Consultants, Contractors, Area Mechanics, Plumbers, Manufacturers and Suppliers, Hydrogeologists, Service companies Yes No

Please give any reason(s) for your answer

- 22. How should information on private sector activities be disseminated?

E. Opinions and comments

- 23. What ideas do you have on small scale private sector participation in the rural water sector?

Appendix B
Government Institutions interviewed

Institution	Contact person(s)	Office
DA/DWSTs – Nkwanta District	Mr. Adjorlolo	District Co-ordinating Director
-do-	Mr Ebow Mends	Deputy District Co-ordinating Director
-do-	Mr Prosper Folitse	Ag. District Engineer
-do-	Mr S.K. Dzomeku	Administrative Officer
-do-	Mr Anthony Gidisu	Community Development Officer
-do-	Mr. Joseph Dah	Environmental Health Officer
-do-	Ms Favour Kwamehene	Environmental Health Assistant
-do-	Mr Ernest Asante	Environmental Health Assistant
-do-	Mr Fred Newell Hobi	Environmental Health Assisstant
-do-	Mr Aikins Atsutse	Environmental Health Assistant
-do-	Mr Peter Ziddah	Environmental Health Assisstant
DWST/DA – Ho District	Mr Paul Sevor	Ag. District Engineer
-do-	Mr James Nyamador	Environmental Health Assistant
-do-	Miss Lydia Sakra	Community Development Officer
DWST/DA – Akatsi District	Mr Nicholas Neble	District Chief Executive
-do-	Mr Dickson Mensah	District Co-ordinating Director
-do-	Mr Sampson Habada	Ag. District Engineer
-do-	Mathias Doryumu	Community Development Officer
-do-	Mr Samuel Davor	Environmental Health Officer
CWSA- Head Office, Accra	Mr Kubabon	Director, Planning and Investment
Ministry of Local Government and Rural Development.	Mr Lious Agbe	HIV Initiative, Rural Development Policy Officer
Water Directorate, MWH	Mr. Aboagye	Water Directorate

Appendix C

List of Development Partner Officials who interacted with the survey team

Name of Organisation	Contact Person	Position	Duration of Financing (yrs)
Department of International Development (DFID)	Amanda Duff	Engineering Adviser	
Water Aid	Stephen Ntow	Program Support Manager	19
Royal Danish Embassy (Danida)	-Mogens Mechta	-Water Sector Coordinator	11
World Vision	Cecelia Anderson	Water and sanitation Programme Officer	
KfW	-Dr Wolfgang Weith	Country Representative-	15