DEPARTMENT FOR INTERNATIONAL DEVELOPMENT

SMALL SCALE PRIVATE SECTOR PARTICIPATION IN THE RURAL WATER SUPPLY SECTOR

R8335

PHASE 2 – SURVEYS

SYNTHESIS REPORT

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CONTENTS

LIST OF ABBREVIATIONS

CWSA	Community Water and Sanitation Agency
ITC	Intermediate Technology Consultants
MDG	Millenium Development Goal
MSWG	Multi-stakeholder Working Group
PS	Private Sector
PSP	Private Sector Participation
RWS	Rural Water Supply
WMC	Water Management Consultants

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1 INTRODUCTION

1.1 General

This report is the key output of Phase 2 of Knowledge and Research (KaR) project No. R8335 "Small scale private sector participation in the rural water supply sector". The project started in November 2003 with an Inception Phase. The outputs of Phase 1, the Inception Report, Knowledge Review and information on the project, can be found at www.ruralwaterpsp.org. Phase 2 - Surveys - commenced in March 2004.

This report presents a synthesis of the results of surveys in Ghana, Tanzania and Zambia of the current involvement and capacity of the small scale, rural based private sector in the provision of services in rural water supply and of the capacity of the governments to enable and regulate the private sector. The report also presents a tool for the multi-stakeholder working groups to use to develop guidelines in the Phase 3 of the project for the development of an 'enabling environment' to increase the involvement of the small scale private sector in rural water supply service provision.

Three country reports have been produced on the surveys, herein called the Ghana Report (CWSA and WaterAid, 2004), the Tanzania Report (RWE Dodoma and WaterAid, 2004) and the Zambia Report (MLGH/DISS and WaterAid, 2004). They are brought together and synthesised in this report. As far as is possible a comparative analysis is presented of the situation in the three countries vis a vis the role and degree of involvement of the private sector and the capacity of government to involve private operators in the rural water sector. This report also compares the real situation as indicated by the surveys with the theoretical positions as reported in the Knowledge Review.

Following this report a multi-stakeholder workshop is planned in each country to present and discuss the results with the wider community of government departments, NGOs and external support agencies involved in the rural water sector. The workshops will mark the end of Phase 2 and the commencement of Phase 3. Phase 3 in each country involves an invited Multi-Stakeholder Working Group taking the outputs of Phases 1 and 2 and developing a vision of the role of the small scale private sector in the rural water sector for the respective country and identifying a series of actions or guidelines for different stakeholders to implement to achieve that vision.

1.2 Objectives

The key objective of the project is to enhance the participation of the rural based, small scale private sector in rural water supply service provision through the production and dissemination of best practice guidelines.

The premise on which the study is based is to explore the opportunity for the small-scale private sector in rural water supply.

The aims of this report are threefold:

- To demonstrate improved understanding of the role and capacity of the private sector to provide services in rural water supply in Ghana, Tanzania and Zambia
- To assess the capacity of the governments of Ghana, Tanzania and Zambia to encourage the participation of the private sector as well as regulate their performance
- To serve as a guide to the multi-stakeholder working groups (MSWGs) in their deliberations to develop a vision for the private sector in the rural water supply sector and the actions (guidelines) necessary to enhance involvement in the sector.

1.3 Survey teams

The surveys were carried out by teams comprising local staff of WaterAid in each country and the respective governmental departments responsible for rural water supply as follows:

- Community Water and Sanitation Agency (Ghana)
- Regional Water Engineer's Office, Dodoma Region (Tanzania)
- Department of Infrastructural and Support Services in the Ministry of Local Government and Housing (Zambia).

Water Management Consultants and Intermediate Technology Consultants gave training and support to the teams to develop their skills in survey techniques. The survey teams each wrote their country reports. WMC and ITC are the authors of this report.

1.4 Study Areas

The surveys were carried out in the following districts with the aim of gaining a representative picture of private sector activities in each country:

Ghana (Volta Region)

- Nkwanta District (savanna belt)
- Ho District (middle belt)
- Akatsi District (coastal belt).

Tanzania (Dodoma Region)

- Dodoma Rural District
- Mpwapwa District.

Zambia

- Siavonga District (Southern Province)
- Namwala District (Western Province)
- Chibombo District (Central Province)
- Mpika District (Northern Province)
- Solwezi District (North Western Province).

The study areas are described in more detail in Section 2.

1.5 Timing of surveys

The surveys were all carried out between July and September 2004. In Ghana this is the wet season. In Tanzania it is the period between the long rains in April-June and the short rains in October-November. It is the cool, dry season in Zambia.

1.6 Methodologies

The country teams based their data collection on the use of questionnaires, which were completed during the course of semi-structured and open ended interviews with individuals and focus group discussions. Each questionnaire addressed a different group. The individuals and groups interviewed represented:

- The rural-based private sector in the study areas
- Communities in the study areas (in the case of the Ghana team only)
- Government at local and national levels
- Development partners (donors and NGOs) at national level.

Each country team tailored their questionnaire to investigate what they considered the country issues to be. However, the questionnaires all aimed to:

- Assess the capacity of small-scale private sector and NGOs to provide services for rural water supply
- Assess the capacity of local government to enable and regulate small-scale private operators
- Assess the demand for guidelines among the key stakeholder groups.

WMC gave assistance to the country teams in structuring their questionnaires and training in livelihoods analysis and supply chain analysis.

The questionnaires used are appended to the respective country reports and are not reproduced in this document.

1.7 Limitations of this study

This study has a number of limitations. Three key limitations are:

- The number of private sector operators interviewed in each country was typically between 20 and 30; a rather small sample on which to general conclusions.
- The absence of gender and poverty analyses. Of all the private sector operators interviewed only one was female. All operators interviewed may be considered to be poor since their main livelihood is usually subsistence farming.
- The absence of an estimate of demand for private sector services and community willingness and ability to pay.

2 STUDY AREAS

2.1 Ghana

2.1.1 Nkwanta District

Nkwanta District is one of twelve districts in Volta Region and is located in the north of the region (Figure 2.1). Nkwanta District has a population of 143,095 (2000 census) of which 74% live in rural areas and scattered settlements. The major settlements in the district are Nkwanta, Kpassa, Brewaniase, Damanko, Kechebi, Bonakye, Tinjase and Sibi. The main livelihoods of the people in the district are farming and livestock keeping in terms of employment and income generation; about 82% of the people in the district are farmers. The district is a major producer of yam, cassava and maize in Ghana. Poverty is widespread in the district. Guinea worm is endemic.

The ethnic composition of the district is diverse; indigenous groups include the Ntrubos, Adeles, Atwodes and Challas. Other groups are Konkombas, Ewes, Akans and Kotokolis, who are all settlers.

The key actors involved in rural water supply are:

- The District Assembly
- Community Water & Sanitation Agency
- Hunger and Poverty Reduction Foundation (a local NGO which receives assistance from the Netherlands).

Table 2.1 lists the types and number of water facilities in Nkwanta District.

Table 2.1 Rural water infrastructure in Nkwanta District, 2004

Type and number of water facilities	Number
Borehole fitted with a handpump:	155
Mechanised pump schemes:	1
Rehabilitated boreholes fitted with handpumps:	77
Other details on the rural water sector:	
Number of Water and Sanitation (WATSAN) committees:	63
Rural population served with safe water:	55%

Source: CWSA Quarterly report, April-June 2004

Nkwanta District was chosen as a study area to represent the savanna belt of the region.

2.1.2 Ho District

Ho District is the regional capital of Volta Region and the most populous district in the Volta Region with 235,331 inhabitants (2000 census) of which 66% live in rural areas (Figure 2.1). The main livelihoods in rural areas are subsistence farming and animal rearing coupled with employment in the formal sector. The formal sector of the district consists of employment in public services, private construction firms and a few large trading companies. Ho, the district and regional capital, and the communities within a radius of 5 kilometres have access to piped water from a Ghana Water Company Limited (GWCL) treatment plant. Rural communities depend on boreholes with hand pumps, mechanised piped schemes, hand dug wells (with or without hand pumps), gravity piped schemes and polluted water sources. The Danish International Development Agency (DANIDA) has been assisting rural communities in the district since 1993 with the provision of water and sanitation facilities.

The key actors in the provision of safe water are:

- The District Assembly
- Community Water and Sanitation Agency.

Table 2.2 lists the types and number of water facilities in Ho District.

Table 2.2 Rural water infrastructure in Ho District, 2004

Type and number of water facilities	Number
Boreholes fitted with a handpump:	268
Hand dug wells:	21
Mechanised pump schemes:	9
Pedal Flo pumps:	4
Gravity pipe schemes:	10
GWCL pipe connections:	15
Rehabilitated boreholes fitted with handpumps:	114
Other details on the rural water sector:	
Number of Water and Sanitation (WATSAN) committees:	145
Rural population served with safe water:	47%

Source: CWSA Quarterly report, April-June 2004

The district was selected primarily because of its population size and mix of economic activity relative to the other districts in the region. It was also selected to represent the semi forest terrain of the Volta region.

2.1.3 Akatsi District

Akatsi District is a coastal district with a total land area of about 488 sq km in the south-eastern part of Volta Region (Figure 2.1). The population of the district is 93,477 (2000 census). The main livelihoods of the people are subsistence farming, livestock, fishing and petty trading. There is minor employment in the public sector as teachers and health workers. Akatsi, the district capital, has recently been provided with a piped water supply by the Community Water and Sanitation Agency with financial assistance from the German government (KfW/GTZ).

The key actors in the provision of safe water are:

- The District Assembly
- Community Water and Sanitation Agency.

Table 2.3 lists the types and number of water facilities in Akatsi District.

Table 2.3 Rural water infrastructure in Akatsi District, 2004

Type and number of water facilities	Number
Boreholes fitted with a handpump:	159
Hand dug wells:	1
Mechanised pump schemes:	4
Ferro cement tanks (rain harvesting):	7
Rehabilitated boreholes fitted with handpumps:	33
Other details on the rural water sector:	
Number of Water and Sanitation (WATSAN) committees:	123
Rural population served with safe water:	56%

Source: CWSA Quarterly report, April-June 2004

Akatsi district was selected as a study area because of its coastal location and combination of coastal and woodland savannah.

2.2 Tanzania

2.2.1 Dodoma Rural District

Dodoma Rural District has a population of 349,887 (2002 census). Major livelihoods are farming, livestock keeping and business enterprise on both large- and small-scales and in the formal and informal sectors. The dominant tribe is the Gogo. However, different tribes are resident in the district. The district is concentric on Dodoma Urban district, whose capital, Dodoma Municipality, is the capital city of Tanzania (Figure 2.2). The headquarters of Dodoma Rural is also situated in the Dodoma Municipality. There are 132 villages within Dodoma Rural District out of which about 120 villages have water supply schemes with different types of technology (Table 2.4).

Table 2.4 Water schemes/projects in Dodoma Rural District at end of 2003

Type of scheme/project	Year 2003
Shallow wells:	10
Boreholes:	98
Gravity schemes:	1
Borehole rehabilitation:	0
Shallow well rehabilitation:	0
Local wells:	12
Dams:	2
Total population with access to clean water:	328,307
Percentage coverage:	90
Number of water committees:	113
Total water fund amount (Tanzanian Shillings):	48,352,648 TZS

Source: District Water Engineer, July 2004.

In 2002 a decision was made by Dodoma Rural District Council to put water supply schemes that had traditionally been managed by water committees into the hands of the private sector to manage. Tenders were invited for the management of about 40 schemes. Dodoma Rural District was chosen for this study so that progress in the management of water supply schemes by the small-scale private sector and practical and strategic needs could be studied.

2.2.2 Mpwapwa District

Mpwapwa District has a population of 254,500 (2002 census) (Figure 2.2). Major livelihoods are farming, livestock keeping and business enterprise on both large- and small-scales and in the formal and informal sectors. The dominant tribe is the Gogo. However, other tribes are resident within the district. There are 84 villages in the district out of which 68 villages have water supply schemes with varying levels of operation (Table 2.5).

Table 2.5 Water schemes/projects in Mpwapwa District at end of 2003

Type of scheme/project	Year 2003
Shallow wells:	41
Boreholes:	20
Gravity schemes:	25
Borehole rehabilitation:	3
Shallow well rehabilitation:	0
Number of water committees:	62
Total population with access to clean water:	197,394
Percentage coverage:	70
Total water fund amount (Tanzanian Shillings):	23,772,499 TZS

Source: District Water Engineer, July 2004.

WaterAid has previously undertaken case studies in ten villages in Mpwapwa District on the management of water supply schemes (WaterAid, 2003). These studies found that there was a regulation gap resulting in underutilization of the great potential offered by the small-scale private sector in rural water supply. Mpwapwa was chosen for this study as there has been some groundwork done which could be investigated by the current study.

2.3 Zambia

2.3.1 Siavonga District (Southern Province)

The study in Zambia was carried out in five districts in five provinces in order to obtain a representative sample of results. The study districts are shown in Figure 2.3.

Siavonga District lies on the northern flank of the Zambezi valley. The topography is hilly and broken. Volcanic rocks dominate the geology and water quality is usually highly mineralized and poor. The main economic activities are subsistence farming, fishing, small trading, sale of agricultural inputs and flour milling.

The principle actors involved in rural water supply are:

- Local councils (with a D-WASHE)
- WaterAid
- UNICEF
- Department of Water Affairs.

There is a piped but untreated water supply from Lake Kariba to the communities that were resettled during construction of the Kariba dam. Boreholes fitted with handpumps, constructed under the drought relief programme funded by JICA, are the principle form of rural water supply technology. There are reported to be about 150 handpumps in the district, 80% of which are said to be functioning. V-WASHEs exist in some communities in Siavonga District.

2.3.2 Namwala District (Western Province)

Namwala district lies in the northwest part of western province of Zambia. It covers an area of about 10,000 sq km. Details of rural water supplies are given in Table 2.6.

Table 2.6 Water schemes/projects in Namwala District at end of 2000

Type of scheme/project	Year 2000
Total Population:	83,735
Urban Population	10%
Rural Population:	90%
Pop. with access to safe water	66%
Pop. in rural areas with access to safe water:	60%
Types of technology	Boreholes, hand dug wells
Total No. of boreholes	190
No. of boreholes in use	168
No. of boreholes not in use	22
No. of wells	182
No. of wells in use	117
No. of wells not in use	65

Source: 2000 CSO census, D-washe Water point inventory 2000

With a population of 83,735 people about 66% have access to safe drinking water and only 37% have access to hygienic sanitary facilities. 90% of the population is rural based and of this 60% have access to either a borehole or a well.

The coverage estimate of 66% is arrived at through estimates based on assumptions of one borehole serving 250 people and a well serving 150 people. The district is characterised by uneven distribution of most of the existing water points, leaving some areas with little or no water points at all. Communities in such places resort to digging unprotected wells that in most cases dry up after a few years.

The commonest types of water facilities in Namwala are boreholes and hand dug wells. According to the Namwala D-washe district water point inventory (2000) ,there were an estimated 190 boreholes of which 168 were functional and 22 non functional. There were 182 wells of which 117 were functioning and 65 not functioning.

The District Council is responsible for most the planning and delivery functions regarding the water supply, the D-washe committee in the district plays the role of advising and supporting the council in the water supply delivery.

2.3.3 Chibombo District (Central Province)

Chibombo District headquarters is situated about one hour north of Lusaka on the Great North Road. Subsistence and large commercial farming occurs in the district. The commercial farms, located near Chisamba, are dependent on irrigation using groundwater. The Zambia National Commercial Bank is the only bank situated in the district. The bank serves the commercial farms.

Small-scale farming takes place around Chibombo district headquarters where the majority of the less privileged and vulnerable groups of the community reside. Some small farmers in the area belong to cooperative systems through which they access Government-subsidized inputs, which they buy at half the economic price.

There is no documented lending system to the small-scale private sector. Other forms of income generating activities are charcoal production (reported to cause serious deforestation) and small scale private sector trading (eg small restaurants, flour milling, grocery and hardware stores) takes place in Chibombo district headquarters along the Great North Road.

A D-WASHE committee became active in Chibombo District during 2003. The Committee includes representatives from:

- Ministry of Health
- Ministry of Community Development
- Care Zambia (NGO)
- Plan Zambia (NGO)
- Development Aid People to People (NGO)
- Chibombo District Council.

It is notable that there are several NGOs active in water and sanitation in the district.

Boreholes fitted with handpumps are the main rural water supply technology. There are reported to be over 700 handpumps in the district. The Central Province Eight Centres Water Supply and Sanitation Project, funded by the African Development Bank, aims to improve access and delivery of water supply and sanitation services in eight centres including Chibombo district headquarters. The project does not include rural water supply service improvement.

2.3.4 Mpika District (Northern Province)

Mpika District lies in the southern part of the Northern Province, with a total surface area of 41,000 km^2. Mpika District has a population of 145 304 (2000 Census of Population and Housing) and hence a population density of approximately 3.5 persons per sq km. The district is well endowed with surface and groundwater resources.

The agricultural potential in the district is quite high but largely un-exploited. Most people engage in subsistence farming through the Chitemene method of shifting cultivation, particularly in recent years owing to the failure by farmers to procure farming inputs.

There are no major industries in the district. However, there are several trading businesses, small garages and workshops. Mining activities are associated with Mununga Quarry where there is production of crushed stones for rail, road and building purposes.

The main institutions and stakeholders working in the water sector in Mpika are:

- D-WASHE committee
- Zambia Social Investment Fund (ZAMSIF)
- Ministry of Tourism, Environment and Natural Resources' Environmental Support Programme
- Ministry of Finance Micro Project Unit
- DOPE (NGO)

- World Vision Zambia (NGO)
- North Luangwa Conservation Project (NGO).

Based on constructed water and sanitation facilities, access to safe water supplies in the district is estimated at 37 percent for the entire population. For sanitation, the estimated coverage is 46 percent for the Boma or peri-urban areas and 34 percent for Rural Mpika. Real coverage is much lower and varies considerably from one place to another due to non-functioning (broken down, abandoned, seasonal) facilities and poor usage, especially with respect to sanitation facilities (Mpika District Health Management Team, personal communication to study team).

2.3.5 Solwezi District (North Western Province)

Solwezi District is located on the North Western Province. The town of Solwezi is the capital of the North Western Province. With a population of approximately 52,000, Solwezi district is a fast growing with economic activity revolving around agriculture and mining activities. Like most districts the majority of the population lives in the rural parts of the district.

About 70% of the population has access to safe water, the majority of these reside in the urban areas. In the rural areas coverage is only about 50%. The most common types of water facilities are wells and boreholes with handpumps and hand augured bucket pumps.

The district administration, through the D-washe committee, is responsible for providing water services. Until early 2004 SNV, a Dutch development agency, was involved in building the capacity of meso-level organisations like the D-washe to provide water services. There are no NGOs in Solwezi who are exclusively operating in the water sector. However, there are a number who are engaged in broader development work. Donor agencies such as KfW have been supporting the government through a private sector firm called Franklyn Engineering through the provision of urban related water services. The North-Western Water and Sewerage Company is a private water utility company which also provides technical support to the D-washe.

The D-washe and the district council in Solwezi have been faced with the problems of non-functioning and breaking down water facilities due to the unavailability of spare parts.

2.4 Comparative analysis

In all three study countries the ‘district’ is the lowest level of administration with executive authority, including under models of decentralised government.

All the districts in which the surveys were carried out have populations of the same order of magnitude, ie 100,000-350,000. Information on the area covered by all districts is not available, making comparison of population densities difficult. However, the districts are all predominantly rural with rural populations of 70-80%. Most people in the rural areas are dependent on subsistence agriculture as their main form of livelihood.

The districts have broadly similar types of rural water supply technology and similar numbers of handpumps. This makes it possible to assume that all districts experience similar demands for water services. The results of the studies in the three countries can therefore be compared with each other.

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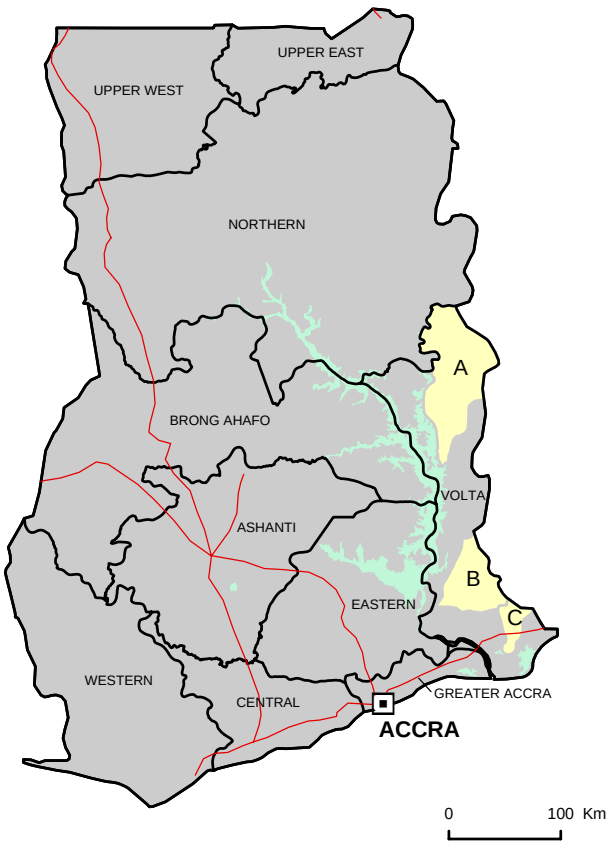
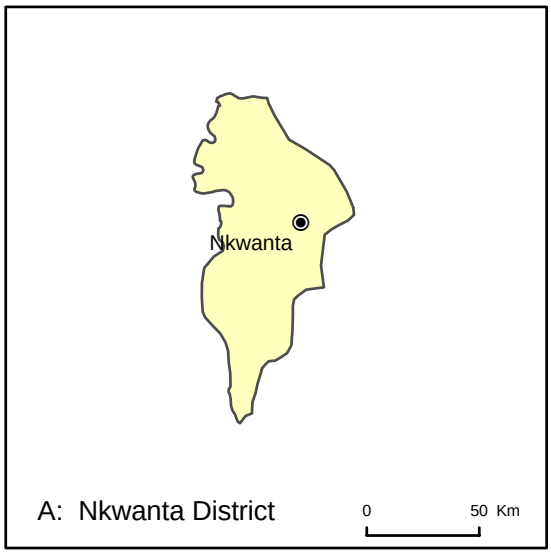
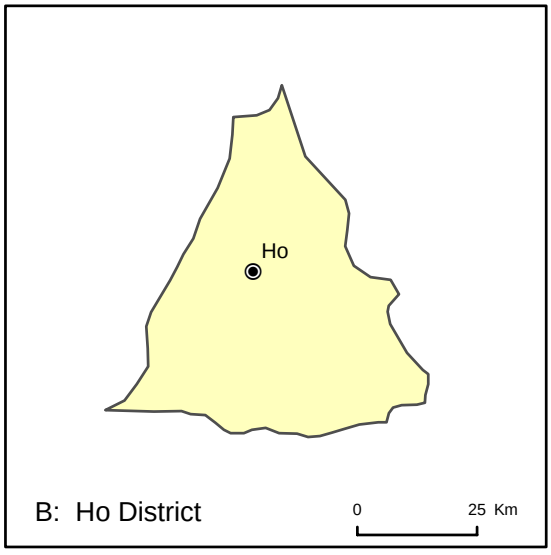
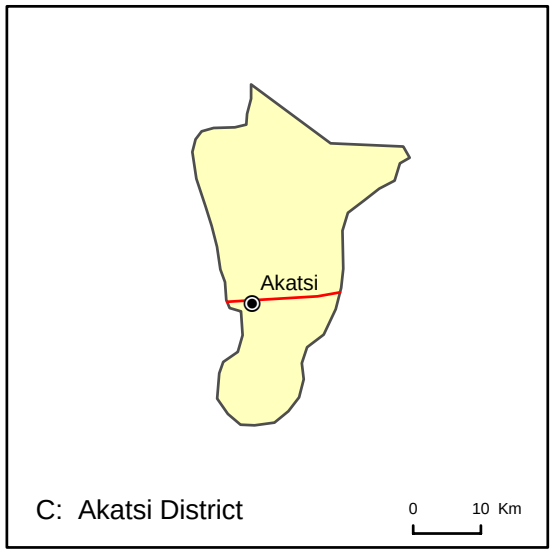
Figure 2.1 Study districts in Ghana



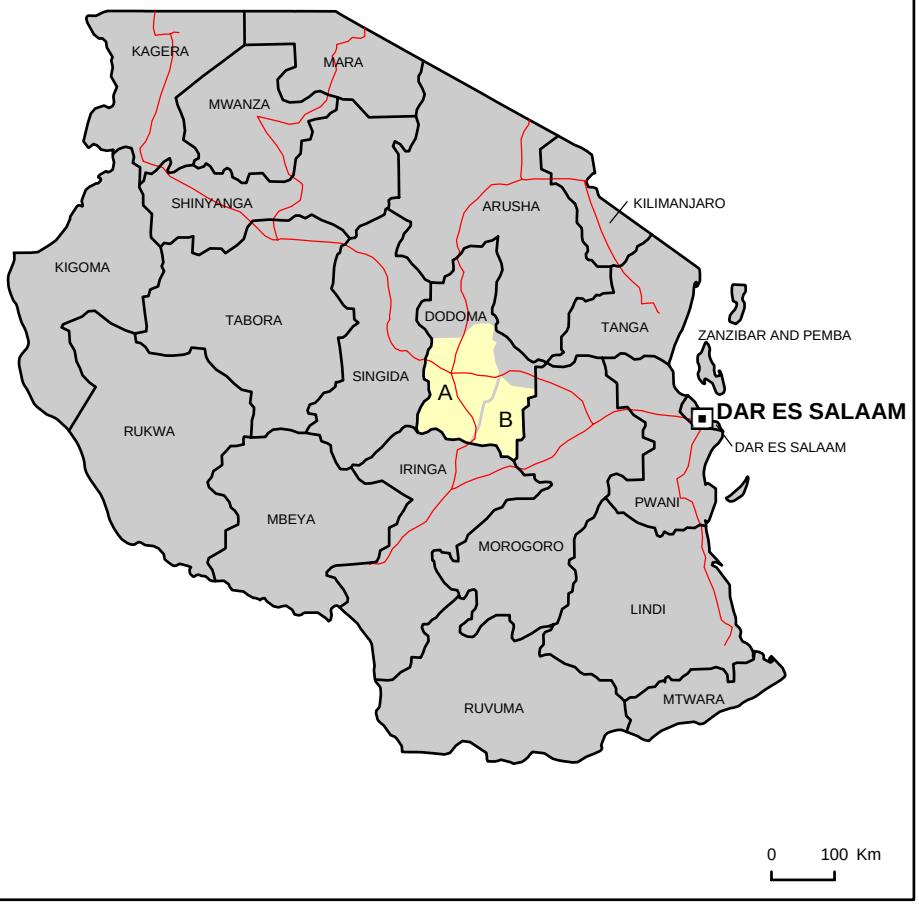


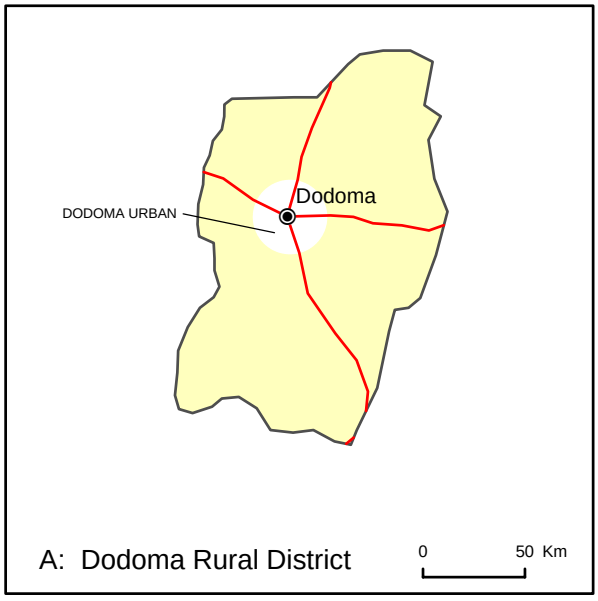


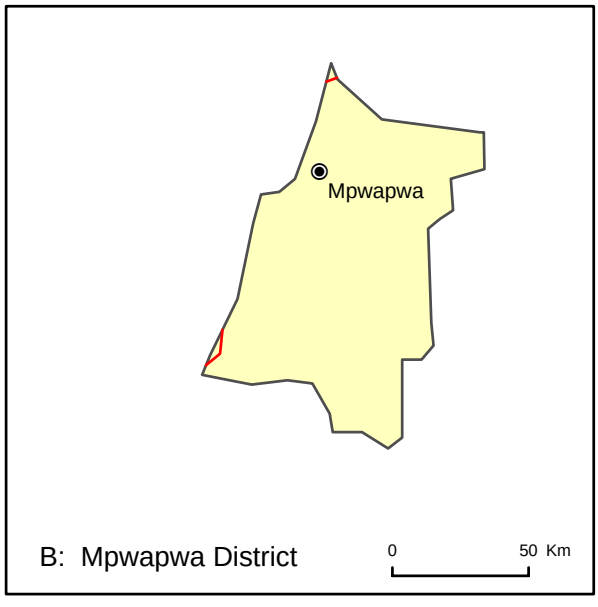


WATER MANAGEMENT CONSULTANTS

Figure 2.2 Study districts in Tanzania

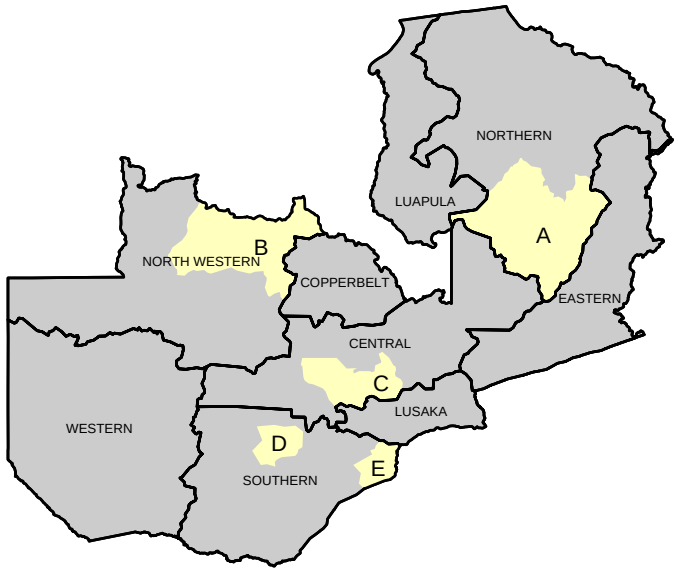


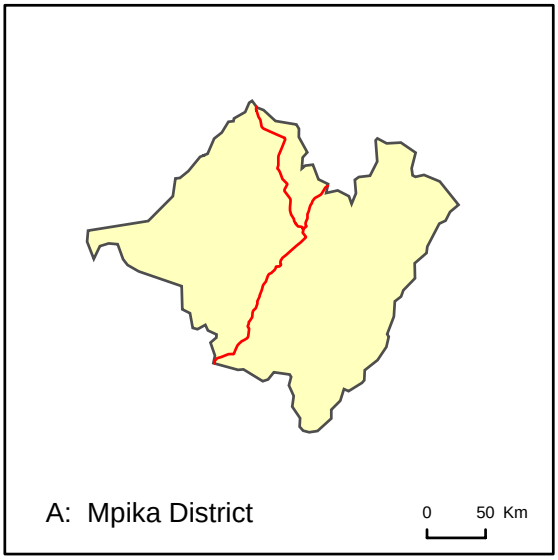


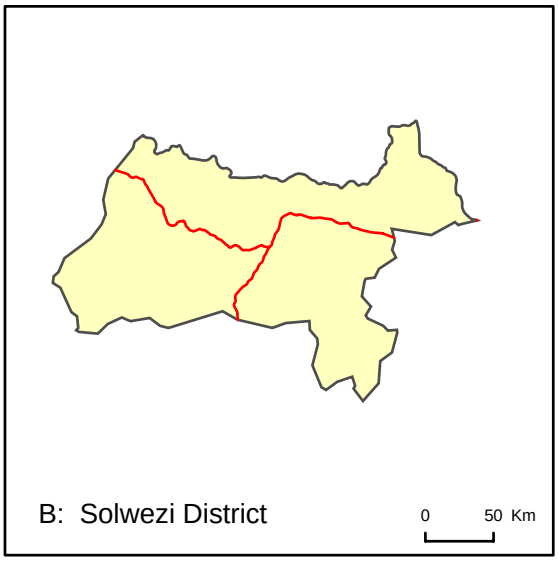


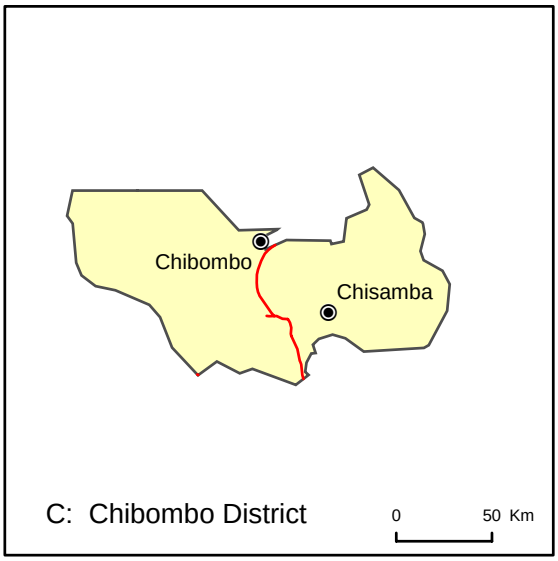
WATER MANAGEMENT CONSULTANTS

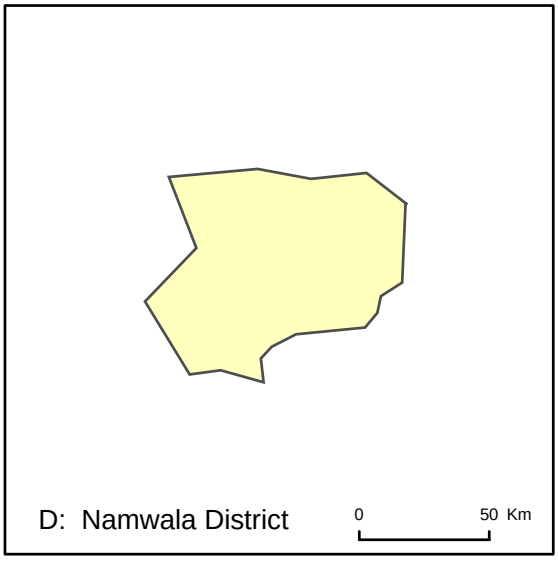
Figure 2.3 Study districts in Zambia

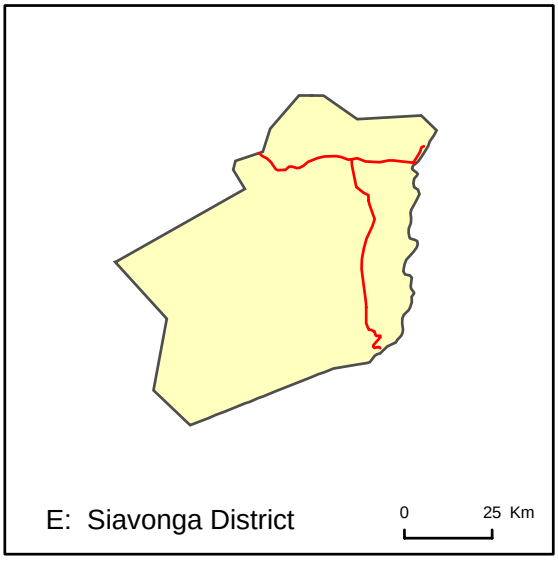












3 PRIVATE SECTOR CAPACITY

3.1 Introduction

This section identifies the roles that the private sector plays in the three study countries. It explores the nature of livelihoods of private sector operators and presents the constraints that impact on their continued operation. This includes issues concerning demand, finance and sustainable supply chains.

3.2 Providers and services

Table 3.1 presents a summary of small-scale private sector operators and NGOs encountered in the study areas and their roles. It is meant as a guide to set the scene.

Table 3.1 Private sector and NGOs in the study areas

Ghana	Tanzania	Zambia
Rural water supply providers (NGOs and private sector)		
NGOs The following NGOs are involved in providing training, funds, equipment and other materials to its partners to strengthen the capacity of the private sector operators: • WaterAid • World Vision • Global 2000 • GTZ	The following NGOs are involved in providing training, funds, equipment and other materials to its partners to strengthen the capacity of the private sector operators: • WaterAid (financier) • WAMMA (facilitation service provider) • Centro Modialita Svillupo Reciproco (CMSR) of Italy (financier) • Lay Volunteers Association of Italy (LCIA) (financier) • World Vision • Belgian Survival Fund/IFAD	The following NGOs are involved in the building of capacity among communities (water point committees) in managing their water system. Some NGOs train small-scale entrepreneurs in different kinds of technical as well as business management skills. Others provide micro financing services usually to associations of small-scale entrepreneurs. • WaterAid • Unicef • Plan Zambia • Development Aid People to People • DOPE • World Vision North Luangwa Conservation Project

Private sector • Drilling contractors • Construction contractors • Spare parts dealers • Area mechanics • Pump electricians • Plumbers • Hydro geological consultants Small private sector operators work predominantly as suppliers of spare parts, area mechanics and technical service providers.	Most private operators interviewed were self-employed in farming, livestock keeping and business enterprise. The percentage of income from water-related business is dependent on extent of their livelihoods re farming, livestock keeping and business enterprise. Most admitted less than 50% of income generated from water-related business.	• General hardware shops • Spare parts supplies shops • Pump menders/repairers • Agriculture co-operative shops • Small scale welders and metal fabricators • Large and medium scale engineering workshops • General merchandisers /grocery shops • Well builders • Auto spares suppliers • Builders, artisans SMEs are engaged in different kinds of entrepreneur activities in the water sector and usually do this alongside other activities. Predominantly, private sector operators are farmers who, alongside agriculture activities, operate small-scale business enterprises.
Numbers of service providers interviewed		
• 18 so-called private sector respondents interviewed including 8 farmers, 2 plumbers, 4 motor mechanics, 1 trader and unspecified number of electricians	• 28 adult private operators interviewed comprising 2 local companies and 26 individual agents • Only one female operator	• 22 Private operators were interviewed broken down as follows; 7 Metal fabricators and welders, 8 hardware &grocery shops, 2 farmers, 2 well constructors, 2 Auto spares shops.
Services provided by those interviewed		
• Preventive maintenance and repairs • Educational campaigns • Inspection of leakages and voltage checking for mechanised boreholes • Hand pump installation • Repair of hand pump • Construction of platforms • Pipe laying • Drilling boreholes • Building of reservoirs • Geophysical studies	• Setting of water tariff • Collecting of water charges from water users • Light maintenance and repair service • Communication to community of all water scheme operations and management issues • Maintenance of good sanitation around water scheme area • Payment of monthly loyalty fee to village government • Meeting expenses for running community water scheme	• Pump mending • Tap mending • Well digging and lining • Borehole part repair • Latrine building • Chain repair • Chain and windlass making • Provision of spare parts • Fabrication of buckets and other small parts

Contracts		
• With the exception of one, all area mechanics, pump electricians and plumbers have not had any contract for work or had any idea on the role of the District Assembly in the award of contract.	• Awarded contracts by district water department • Most are not licensed or registered and signing of contract is what they see to be registration. • Activities performed are internally regulated by village government and water committee by making regular follow ups and the contractual terms. • The involvement of the private sector has been made through innovation. There have been no guidelines for the facilitation of knowledge and orientation of the community towards it.	• All of the interviewed operators engage in unwritten contracts to provide services to the D-washe or communities. Their clients are the one responsible for monitoring their work. • Most operators are subcontracted by bigger enterprises to carry out work, there are no written contracts for these either. Most operators are not aware of where they can go to obtain information about private sector involvement in such works.

Table 3.2 presents the factors that are considered to influence the emergence of service providers in the study areas.

Table 3.2 Factors influencing emergence of service providers

Ghana	Tanzania	Zambia
• ***Capacity building***: lack of business management skills leading to poor planning and execution of work, poor communication. • ***Community:*** low commitment to operating and maintenance contributions. • ***Demand:*** low demand for private sector services due to a low level of awareness. • ***Financing:*** lack of access to formal financial systems, unavailability of money to purchase parts and lack of start up capital. • ***Legislation:*** slow process for registering businesses at the local level and a shallow knowledge of the existence of any legal framework on the water sector.	• ***Capacity building:*** need for basic training re water supply scheme maintenance technology so can distinguish genuine and fake water scheme maintenance parts. Lack of capacity facilitation to private sector. • ***Community***: lack of financial resources by communities for meeting water schemes operating and maintenance costs. Interference of village government in running and management of the community water scheme. • ***Financing:*** limited capital to most private sector participants. Limited opportunities for credit facilities to small scale private sector. Capital intensive repair of water schemes. • ***Legislation*****:** unclear contracts. • ***Spare parts****:* limited availability of equipment and genuine parts for repair and maintenance of water schemes.	• ***Capacity building:*** insufficient training, lack of exposure to new and improved technologies and methods. • ***Community:*** insufficient incomes among communities to enable them to pay reasonable fees for services. • ***Financing:*** considerable lack of start up capital and access to loans to expand business. Business funded from own incomes; turn over is low with little scope for expanding and competing with bigger enterprises. • ***Legislation:*** while there is a legal framework under which the water sector operates as a whole, there are no specific pieces of legislation to guide the operation and involvement of the small-scale private sector in rural water. ***Incentive:*** as NGOs and donors provide most services at a highly subsidised value, there is no incentive for small scale private sector to compete.

• ***Payment:*** delay in effecting payments and in some extreme cases non-payment. • ***Spare parts:*** lack of spare parts for particular equipment and upward adjustment of the prices of spare parts due to inflation and the depreciation of the cedi against the dollar and other major currencies.		

Providers and services – key points

- Small scale private sector involvement in rural water supply is generally restricted to the repair and maintenance of schemes and the supply of spare parts for these activities. SSPS operators are distributors and are usually very involved in the fabric of community life.

- Supply chains for the provision of spare parts and repair services exist in some form. Few of them are fully private sector and none were reported to be successfully providing the needs of the end users, i.e. suitable services at an acceptable price in a timely manner. Most supply chains had significant involvement of a donor/NGO/government agency somewhere in the chain.

3.3 Livelihoods

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 (DFID, 1999).

The studies show that most small scale private sector operators do not depend solely on the water sector for their income, but have other income streams to supplement their involvement in the sector. For example, the area mechanic will typically be involved in some form of mechanical maintenance operation (e.g. bikes) and the local distributor will stock spare parts for pumps as part of a bigger trading operation. They may well be the main/only district trader. Private sector operators and in particular the area mechanics and local traders, are often involved in the supply of goods and services for water supply out of a sense of duty and community responsibility. This may mean that their expected rewards for services provided may not necessarily follow a purely private sector model, i.e. cash payment with associated profit. They may be rewarded in other ways.

The studies showed that small-scale private service providers have the following types of capital:

Physical – Small-scale private operators own and rent land, have ox carts, animals (cattle), bicycles, shops, farm tools and hoes (Zambia). In some cases as shop owners these service providers are already set up to supply equipment and spares.

Social - Good social capital makes for a solid supporting network for service providers. For small-scale private operators, sources of social capital were listed as immediate family members, extended families, village members, traditional leadership (headmen), social clubs for men, women's clubs and water points (for women).

In Ghana there were limited trade associations and networks resulting in no enhanced social capital although there was some level of trust between providers and district assemblies and communities. All of the service providers from all countries apart from one in Tanzania were men.

Financial - The majority of small-scale private operators from all countries receive income from daily sales of goods and services from other activities such as farming and general merchandising (but predominantly farming). In Tanzania most admitted less than 50% of their income was generated from water-related business thus spreading the financial risk. Cash flow was reported as a problem for all small-scale private operators as was lack of access to finance and working capital. In Ghana, lack of access to credit was considered a major factor restricting business expansion.

Human - A number of interviewees had only basic education, but in Ghana most had received training through the Community Water and Sanitation Agency from private training institutions. In Zambia and Tanzania training was not as widely received and book keeping and business management training was lacking in all three countries.

Natural - Agricultural land, rivers and streams, trees, natural products (honey, mushrooms, fruits) were the natural capital reported from Zambia although this is likely to be relevant for all three countries. In Tanzania there is sufficient land for agricultural activities and livestock keeping but these are under-utilised due to financial constraints. However, natural capital in the form of agricultural land is not considered viable collateral for a loan from any banking institution (Tanzania).

Livelihoods – key points:

- Most small-scale private operators do not depend solely on the water sector for their income, thus reducing overall risk. They are often involved in water supply out of a sense of duty; profit is not the primary incentive.
- As small-scale private operators do not have any significant cash flow, the lack of access to the formal financial system reported is a major constraint to business involvement and expansion.
- Lack of human capital in the form of training and education limits information regarding market opportunities

3.4 Factors affecting private sector involvement

3.4.1 Introduction

The ability of private sector providers to operate effectively is dependent on a number of factors which are not mutually exclusive. Demand for goods and services and access to finance are two key factors emerging from the studies. This section explores these key drivers and others in more detail.

3.4.2 Demand

Demand for installation services is directly linked to the activities of implementing agencies (government, NGOs, international donor agencies) while for repair services, maintenance and spare parts demand is directly linked to the installed equipment. This includes type of water supply equipment, its reliability and maintenance cycle and the number of pieces of the equipment in a geographical area.

Installation contracts in all three countries are usually competitive requiring bidding although further investigation is needed to determine whether this process is open to all private sector operators or whether it favours only some operators at national level. Arguably the process creates a demand for spares and maintenance but in all three countries the small scale private sector lacked adequate information on this demand. Formal business registration which most small scale private operators do not have, could potentially open up avenues to such information. However, the process and costs of registration are expensive and time consuming, and expose small businesses to the tax regime, and are therefore prohibitive.

In all three countries, demand for repair and installation services is seasonal, driven by increased reliance on water supply schemes during the dry season, but demand for spare parts, particularly for handpumps in Ghana and Zambia is low. This is caused by a number of factors. In Ghana, for example, low volumes of sales are due to limited availability of fast moving spare parts, while at the same time a lack of understanding by communities of the need for preventive maintenance also reduces demand. In Tanzania and Zambia a limited availability of genuine spare parts and a lack of enforcement machinery for ensuring genuine distribution and availability of genuine spare parts are large factors.

The selection of technology that requires spare parts to be imported has resulted in expensive, often slow moving spare parts which only act as a disincentive to potential customers to purchase, and thus distributors to stock in advance.

With spare parts and repair services, the volume of parts per geographical area and per supply chain supplier is critical to sustainable provision by the supply chain. The volume of demand for parts and services in a given geographical area over a specific time must be sufficient to support the mechanic who purchases the parts and provides the repair services, all the way through the supply chain to the manufacturer of the parts. Revenues from the parts must meet all suppliers' costs and allow adequate profit. The longer the supply chain, the greater the number of suppliers, the higher the costs and the greater the volume of demand needed to sustain the chain. Adequate demand is essential to achieving a sustainable fully private sector supply chain. None of the studies identified any recognition of this, but the example of the Vergnet pump (see Section 3.5) in Ghana shows how the predicted volume of repairs and parts for a particular piece of equipment has been used to determine minimum market size in equipment introduction and helped set up a support network (Oyo, 2001).

End users cash flow has a very real impact on the nature of demand for services. (see Section 3.4.2). Thus a potentially attractive market for the private sector using maintenance services as the core income stream is restricted.

3.4.3 Finance

The studies indicate that all small-scale private operators lack access to financial systems, either for capital to start businesses, or for cash flow to sustain stock levels for spare parts.

In all three countries the repairer (area mechanic) was required to purchase spare parts, fit them and collect payment from the end users. Often he was not able to get credit from the distributor to achieve this, and therefore had to fund it himself. This situation where access to finance is not an option is compounded by the end users' lack of ability or willingness to pay for the repair services. For rural communities their ability to pay is greatest usually after the harvest period. However, where equipment is broken and there is a critical need for a supply of water, communities often find the mechanisms to find the money. Even where some community water committees have been established, often they are not able, or willing to save money to pay for routine maintenance to avoid future breakdowns, and are more likely to respond favourably to a 'broken pump today' situation. In Zambia, some communities could not afford to pay reasonable fees for post-installation services and in addition private sector operators were left with the requirement to continue maintenance and incurring running costs for equipment while end users moved to alternative, unsafe sources during the rainy season partly because of insufficient education on the health implications of using such water.

Financial institutions who have the potential to support private sector operators in the water supply sector lack information and thus confidence in this market sector, and are less likely to support loans to fund even the most enthusiastic small scale entrepreneurs. Small-scale operators are generally excluded from installation contracts because of the high capital costs of drilling equipment and the inability to borrow from the formal sector. The same is true for capital-intensive repair projects. Therefore these contracts generally go to larger contractors, often NGOs and international companies. Even where there are receptive financial institutions, small-scale operators are again restricted from using this option because of their inability to provide collateral to secure bank loans. Generally land is not acceptable as collateral. Therefore, most capital comes from within the informal sector and is generally based on short-term repayment terms, which restricts long term growth opportunities.

Some NGOs, e.g. in Zambia, have tried to address this issue by providing micro-finance services, usually to associations of small scale entrepreneurs, but this still remains a major hurdle for this sector.

Other financial constraints to the involvement of the small-scale private sector are:

- Inadequate financial resources to attract and retain staff.
- Time consuming and costly registration prohibiting small-scale private sector involvement. Lack of registration precludes access to tendering process for larger contracts.
- True cost to the small scale private sector in providing services not reflected in government regulation on the pricing of goods and services (Ghana).
- Lack of understanding by the community of the relationship between increasing maintenance costs and/or fuel in relation to the fees paid, i.e. the need to increase fees to meet increasing costs (Tanzania).
- Where payment of the private sector maintainer is dependent on the release of funds from the village's bank account, e.g. in Tanzania, they may be disadvantaged from a cash flow perspective by delays in getting paid, especially where the maintainer has had to buy the spare parts themselves.
- Increased costs to the supply chain in rural areas due to lack of transport and infrastructure.
- Limited incentive to compete where external agencies (NGOs and donors) provide services at highly subsidised values.

- Relatively high transaction costs because of the small scale of community works**.**

3.4.4 Training /competence/capacity building

All three studies highlighted a lack of competent artisans at community level and inadequate training resources to develop technical and business management. In addition small-scale private operators lacked:

- exposure to new and improved technology and methods
- administrative and technical capacity resulting in a focus on small works and work as sub contractors
- participation facilitation for private sector
- skilled and dedicated managers/leaders at community level.

3.4.5 Government / community interface

Poor co-operation between village governments, water committees and private sector operators were identified in the Tanzania study with village government and water committees often abdicating their roles. It was also suggested that some dishonest village government members had threatened to reject the private operator at the time of contract renewal if their particular 'selfish' demands were not adhered to.

All three countries identified government sector policy towards the private sector to be inconsistent and it is possible that within government bodies there may be resistance to the development of the private sector because it is perceived as leading to a diminishing role for the public sector.

3.4.6 Infrastructure

Poor road networks and poor access to communications constrain private sector involvement. Also the studies highlighted the absence of metering systems at domestic points and for in house connections to facilitate monitoring of consumption

3.4.7 Contracts

There is a lack on knowledge in contractual matters on the part of both government and the small-scale private sector. However, contracts tend not to have any strong binding power and may have little value thus emphasising their ineffectiveness. In Tanzania the law for water extraction may also not be understood fully

Factors affecting private sector involvement – key points:

Demand

- To attract and sustain private sector involvement, demand is critical. Demand is geographically bound, i.e. to achieve a balance where supply sustainably meets demand, the volume of demand in a given area and for a given timescale must meet all of the costs of all of the suppliers and provide adequate profit. Donor/NGO/Government-led projects are the biggest creator of demand for installation and repair services. It is possible that greater coordination between project implementers of technology and location could generate the required critical mass of demand for supporting services.

- An ideal business environment for the small-scale private sector is consistent demand throughout the year based on supplying maintenance requirements and the occasional repair. This issue of willingness and ability to pay is set in a context where community cash flow and demand for water are both seasonal. Cash flow is driven by harvests. The demand for water is driven by its availability and is highest in the dry season.

- Practitioners should look at the conflict between the requirements of planned preventive maintenance and an established culture of fixing today's problem, rather than planning for tomorrow. This involves communities saving funds for eventualities rather than finding the money when equipment fails. The perceived health benefits of drinking potable water however, may not be sufficiently high on the community's priorities to facilitate a savings program for planned maintenance.

- Project implementers (donors/government/NGOs) can influence the simplicity of technology installed. Installation of simpler technology that is cheap but can be repaired locally and quickly with local materials, may be more favourable than more expensive, more reliable equipment that needs complicated and long supply chains to supply its spare parts and repair services. The lower levels of reliability can help to create demand for and maintenance of repair services, and if coordinated with other projects, has the potential to create the critical mass of demand for sustainable private sector supply to thrive. This may not be appropriate for all locations, but it does have potential in some, and the savings made in installation costs, could de directed to supporting market assessments and marketing campaigns, on behalf of the private sector.

Finance

- SSPS access to finance is critical to meet cash flow requirements, e.g. managing the delay in getting paid by communities for services and spare parts that they have purchased, and was identified as a major constraint. Most small-scale private operators do not have sufficient collateral to raise finance through formal institutions (land is not generally considered as suitable collateral). Generally the water sector is either unknown among financial institutions or is considered high risk. Usually this lack of confidence in the sector is caused by lack of information on existing and potential markets. This information is also lacking among the small-scale private sector. Given the cost of this sort of exercise, this may be an activity which supporting agencies could fund, i.e. rigorous market assessments and marketing campaigns. The facilitation of the creation of savings and credits co-operative associations among private operators may also assist in strengthening their financial security and sustainability, coupled with the development of trade associations to strengthen their position and gain greater bargaining power. This may provide a vehicle for the provision of more and better quality training for service providers.

- In locations where the process to get a community a speedy solution to a broken piece of equipment depends on the efficiency and effectiveness of the District Water Engineer and the supply chain, practitioners should consider the feasibility of making spare pumps available, possibly to the District Water Engineer. These could be fitted straight away, thus reducing the time spent using unsafe water. The funding mechanism could possibly involve the community paying an amortised repair cost, through regular monthly/periodical payments. The potential change in cultural attitude to achieve this funding arrangement is recognised, but may still be achievable in certain circumstances.

- Through the development of water sector policy, the setting of tariffs for water supply and for repair services helps to achieve consistency and achieve certain political objectives. In order to ensure a sustainable private sector supply of goods and services to meet the demand, these tariffs need to reflect the actual costs of providing services and the requirements of the private sector to operate. It may be the case that capped tariffs actually restrict private sector engagement and growth. Similarly the supply of free or subsidised parts and equipment into the market, (usually by donors and NGOs) may well remove private sector incentives to engage. It is possible that seed capital-type schemes, that have clear market development and exit strategies can be effective in stimulating the growth of markets, but they need to be planned and well-managed.

- Total transaction costs are heavily influenced by infrastructure costs, especially in remote areas. The review of measures to reduce these costs is needed, to include tax on imported goods and strategies to enhance economic development through infrastructure improvements, telephones and roads.

Enabling environment

- There may be much to learn from the Ghanaian Government's example of recognising the role of micro and small enterprise in the water sector, and aim to develop support mechanisms through economic, financial and regulatory policies that will make available an enabling environment for sustainable growth and development.

- There is scope to review the policy environment for the small-scale private sector and put in place measures to encourage an enabling environment for small-scale private sector participation, e.g. registration requirements for small-scale private operators, tax incentives for spare parts bought by the small-scale private sector, different tendering procedures to encourage small-scale private sector involvement in local contracts, e.g. policies that direct NGOs and donors on how to involve the small-scale private sector in contracts for the provision of services.

- In developing guidelines and in order to determine a role for the small-scale private sector, practitioners need to consider the following two issues:

  a) Full and active involvement of the small-scale private sector in the implementation and maintenance of systems, fully integrated in the supply chain, probably requires significant support in training, access to finance and change in attitude from donors/NGOs on how to do projects, and project timescales and the associated funding cycles.

  b) Small-scale private sector involvement in providing high quality, effective services to the larger contractors and repair services for communities probably still requires investment in training and establishing micro-finance mechanisms. But this requires less of a paradigm shift for donors and NGOs, and therefore is more likely to be supported, and thus successful. This is because small-scale private sector operators remain as sub-contractors and the time taken to develop capacity does not necessarily impact negatively on project timescales.

3.5 Supply chains

3.5.1 Supply chains in the study countries

Supply chains are the process by which goods and services are transferred from original suppliers (e.g. manufacturers) to the end users. For the three study countries supply chains maps have been developed for a number of rural water services and are reproduced in this report.

Private sector driven supply chains probably have a significantly longer history in **Ghana** than in Tanzania or Zambia, and enjoy strong links to a worldwide Ghanaian business diaspora and external investment opportunities. These networks have yet to be expanded by Tanzania and Zambia. This is due to greater external drives by the donor community to involve and stimulate the private sector in Ghana's water sector over recent years, as well as a relatively more established private sector in the country.

The supply chains studied in Ghana are for spare parts and goods and services for handpumps (Figure 3.1). These include borehole drilling, installation, maintenance, parts and repair services, tap mending, well digging, well lining, chain and windlass making and repair, fabrication of buckets and other small parts and latrine building. The supply and selection of technology is generally top down, i.e. donor/government driven, including NGOs. Attempts to create a support network for the equipment are also donor/government driven. In Ghana the price of spares is determined by the CWSA, with different profit margins depending on the parts in question, ranging between 0% and 70%. CWSA also sets maximum prices for different types of work.

Area mechanics are trained by government or NGOs to provide repair and maintenance services. The community is advised by its support network (NGO etc) to contact the area mechanic on pump failure. The area mechanic then assesses the problem, advises the community of a suitable solution, buys the material and affects a repair/maintenance.

Both the area mechanic and the spares distributor are often expected to pay in advance, i.e. at time of collection when purchasing spare parts and materials to be used in repairs. Thus there is a requirement for cash flow to support this.

The supply chain in **Zambia** (Figure 3.2) also supports handpumps and their spare parts and support services, while in Tanzania the supply chains focus on motorised-pumped schemes to support deeper wells. However, the principles remain the same, i.e. all three country schemes reflect significant donor/NGO/government involvement in the delivery of technology and attempts to establish trained support technicians. The small-scale private sector is in competition with large contractors, who are usually successful with large installation contracts, putting them in a strong position for follow-up maintenance and support contracts. This is particularly the case with deep well motorised schemes as the capital funds required for set up is usually out of the reach of small suppliers.

In **Tanzania** (Figure 3.3) the government (the District Water Engineer) leads the process of assessing the problem, determining the right solution for the community's broken scheme, and acquiring three quotes for carrying out repairs. The community then decides whether to authorise the repair and release the funds to buy spare parts (bought by the District Pump Mechanic). While this is occurring, users may have resorted to unsafe water sources. Further investigations are required to determine where the spare parts are sourced from and what funding mechanism is used to get them from the manufacturers to the District Water Engineer.

3.5.2 Key issues in supply chain operation

Key issues in the operation of supply chains include:

- Length of chain and level of demand
- Volume per geographical area and consideration of support network
- Simpler technology leads to simpler supply chains
- *Motivation of the private sector*
- Supply chain sustainability.

Length of chain and level of demand

Supply chains for spare parts are generally long, because parts are often imported while demand for products and spare parts is low because of cost and lack of local availability. Turnover of parts is slow and volume is low. Often the following dilemma is created where retailers cannot afford to stock expensive spares, unless assisted – consumers can't afford them, and the potential to reduce costs through bulk buying can't work because of the low turnover requirement in maintenance.

Volume per geographical area and consideration of support network

Another consideration relevant here is whether the volume of pumps installed per geographical area is sufficient to stimulate enough demand for the supporting supply chain to be sustainable. In most cases equipment was installed first in volumes driven by an assortment of objectives, and then consideration given to the supporting network.

The supply chain for the Vergnet pump is an exception (Oyo, 2001). The Vergnet pump has been installed in Ghana with a conscious attempt to create a critical mass of pumps around a distribution network comprising an area mechanic supported by a local distributor. In turn this distributor is linked to an importation process that goes back to the manufacturer in Europe. Typically, the number of pumps installed around a distributor is 200 to 300. This gives adequate spares and repair services to provide suitable incentives for the small operators involved in the supply chain.

The Vergnet example is one of relatively high technology where attempts have been made to develop a supply for a particular product. An alternative way of addressing these issues is to consider the support network before or as part of the technology selection process. The support network for a locally manufactured handpump will have lower transaction costs (transportation, profits requirement within a shorter supply chain) than an imported pump. If spare parts are available locally at reasonable prices (e.g. without import taxes), the time a pump is out of action and unsuitable water sources are used is likely to be reduced.

In Ghana, the government's policy of standardisation on four types of handpumps may help to focus demand for certain spares and repair services and build the necessary critical mass to encourage private sector interest and stimulate a self-sustaining market.

In Tanzania, not unlike some areas of the other two study countries, the volume of pumps requiring rehabilitation, or complete replacement, should provide significant demand for the private sector. This kind of work lends itself more to large-scale operators, funded directly through agency projects.

In Ghana attempts have been made to establish private sector interest in spare parts by providing seed money to a private company (FAM) to import parts and distribute them. Further investigation is required to understand what the criteria is for FAM to consider the sector an attractive one, without seed capital, and thus to trigger their own investment in new spares when the current stock runs out. This criteria will undoubtedly be based on demand and will be driven by potential sales volume and thus profit, compared with their likely capital outlay in specified periods of time, i.e. the best use of their funds and return on their investment.

Simpler technology leads to simpler supply chains

The less complex the technology selected at installation, the less likely the need for complicated spare parts and specific maintenance skills, and thus the simpler the supply chain. Simpler also means less costly spare parts may be available locally or at least from within the same country rather than being imported. In Ghana, as in many countries in South America, the rope pump is now being manufactured. This pump provides a locally-made solution for small and mid-range pumping, with three spare parts, all of which can be acquired locally. With this kind of technology, the process of selection has to consider whether it is better to have a pump that may break down more often but can be fixed very quickly and cheaply, rather than a more expensive and reliable pump with an unsustainable supply chain to support the spares and repairs services. Donor support of such an option may enable the money saved on installation to be spent on training and promoting the water sector to financial institutions to open avenues for commercial financing**.**

Motivation of the private sector

As has been discussed in Section 3.3, the area mechanic and distributor supplement their involvement in the water supply chain with other occupations and may often be involved in the supply of goods and services for water supply out of a sense of duty and community responsibility. This is important to note in assessing incentives for private sector involvement. This situation is typical of all three countries studied.

Supply chain sustainability

There is a lack of supply chain management leading to no one agency having a view of the whole supply chain. Such management might enable blockages to be identified and necessary action to be taken.

Supply chains – key points:

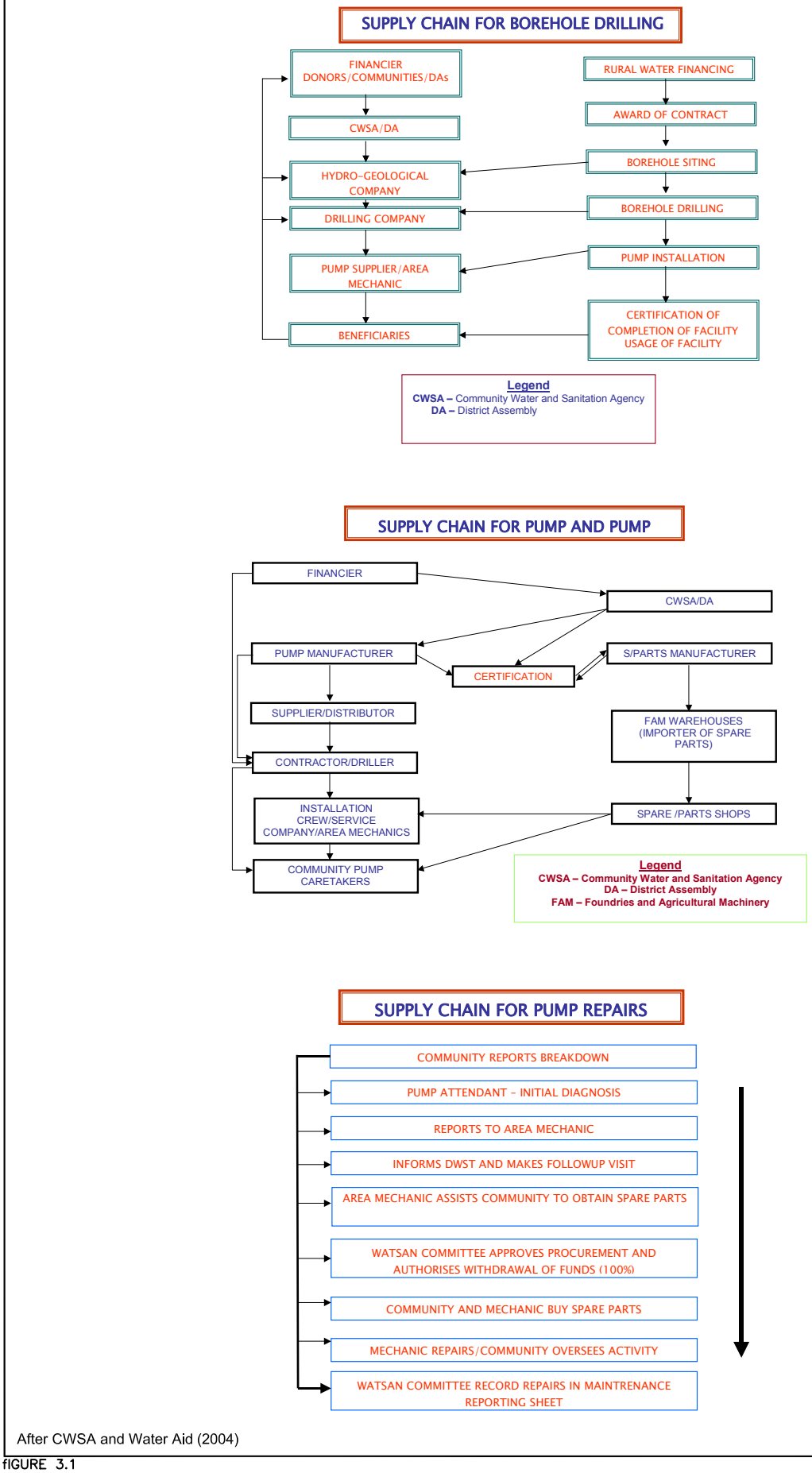
- Supply chains in the three countries vary in the degree of private sector involvement and most have significant donor/NGO/government involvement in getting spare parts into the supply chain, usually with credit and then using artisans and local distributors to stock and supply them. The studies have not found any purely private sector supply chains. The way in which private sector supply chains have been addressed in the projects appears to reflect a lack of understanding, in most cases but not all, of the significance of adequate demand and cash flow to sustain private sector supply chains. Ghana appears to have a more active private sector than Zambia and Tanzania, and the water sector has probably benefited from this. Lessons learnt in Ghana may be relevant in Zambia and Tanzania.

- In developing guidelines to involve the private sector it is important to consider the degree of private sector involvement that is possible. It may be that full private sector management of some goods and services will never be achieved. An important finding from the studies influencing this is trader motivation, especially at community level, i.e. at the end of supply chain. The motivation to participate tended to be from a sense of duty and responsibility to the community that traders were themselves a part of. Here, conventional private sector models and attitudes to profit and contracts need to be reconsidered. Practitioners might consider the development of a tool that leads them through a set of decision gates which provides guidance on a feasible level of private sector involvement. Criteria for the decision gates would be based on the level of demand and the enabling environment for the private sector including access to finance. This process, if carried out with rigour, would allow informed policy development and actions to take place.

- As discussed in section 3.4, project implementers have the potential to play a major part in supply chains development. Guidelines should address the issue of development projects effectively creating the demand for post-installation services (repairs and maintenance) and project implementers having the resources to coordinate with other agencies on the selection of technology, its volumes and the geographical spread of projects. These three elements are fundamental in creating the critical mass required to develop attractive markets for providers and suppliers.

- A supply chain management role (the function of overseeing the whole supply chain, making interventions to clear blockages in the chain and possibly marketing a product to promote the whole chain) may help to achieve sustainable supply chains. The appropriateness and practicalities of such a role and the necessary skills required need careful consideration.

Figure 3.1 Supply chains in Ghana



After CWSA and Water Aid (2004)

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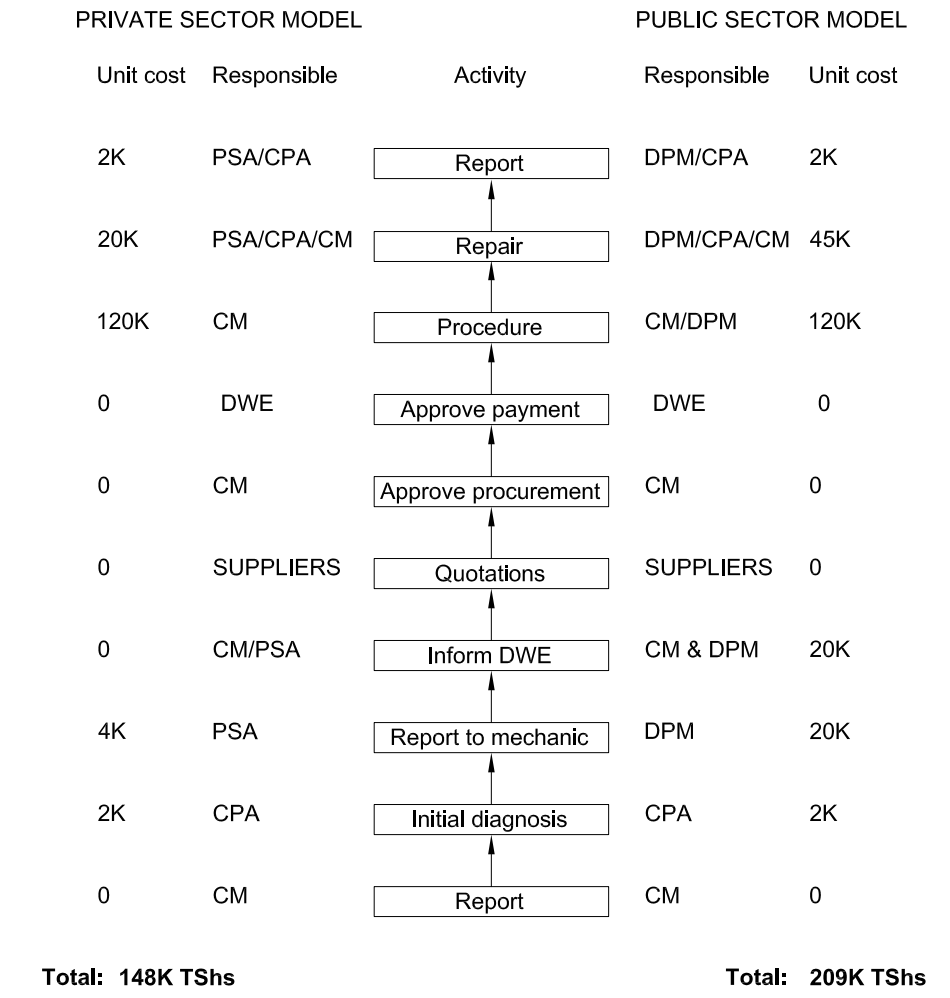
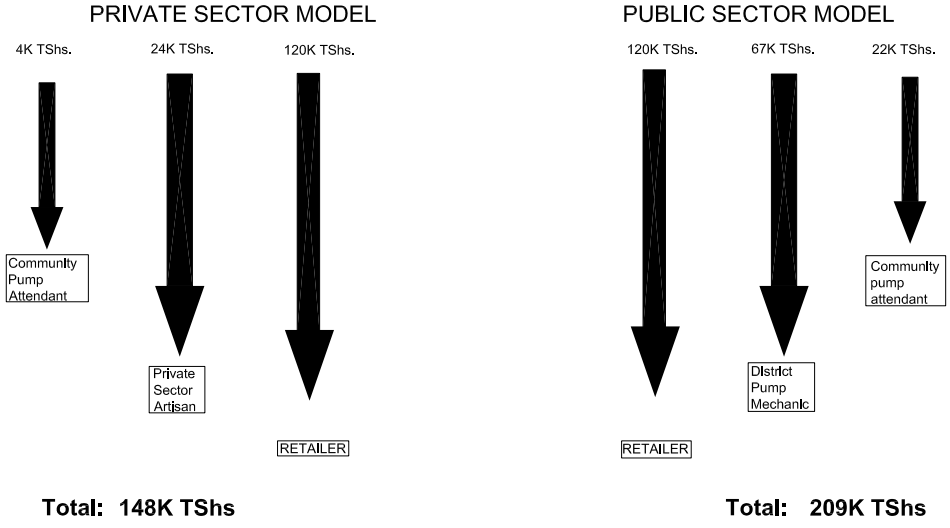
Figure 3.2 Public and private sector supply chain and costs for motorised pump spare parts in Dodoma Region, Tanzania



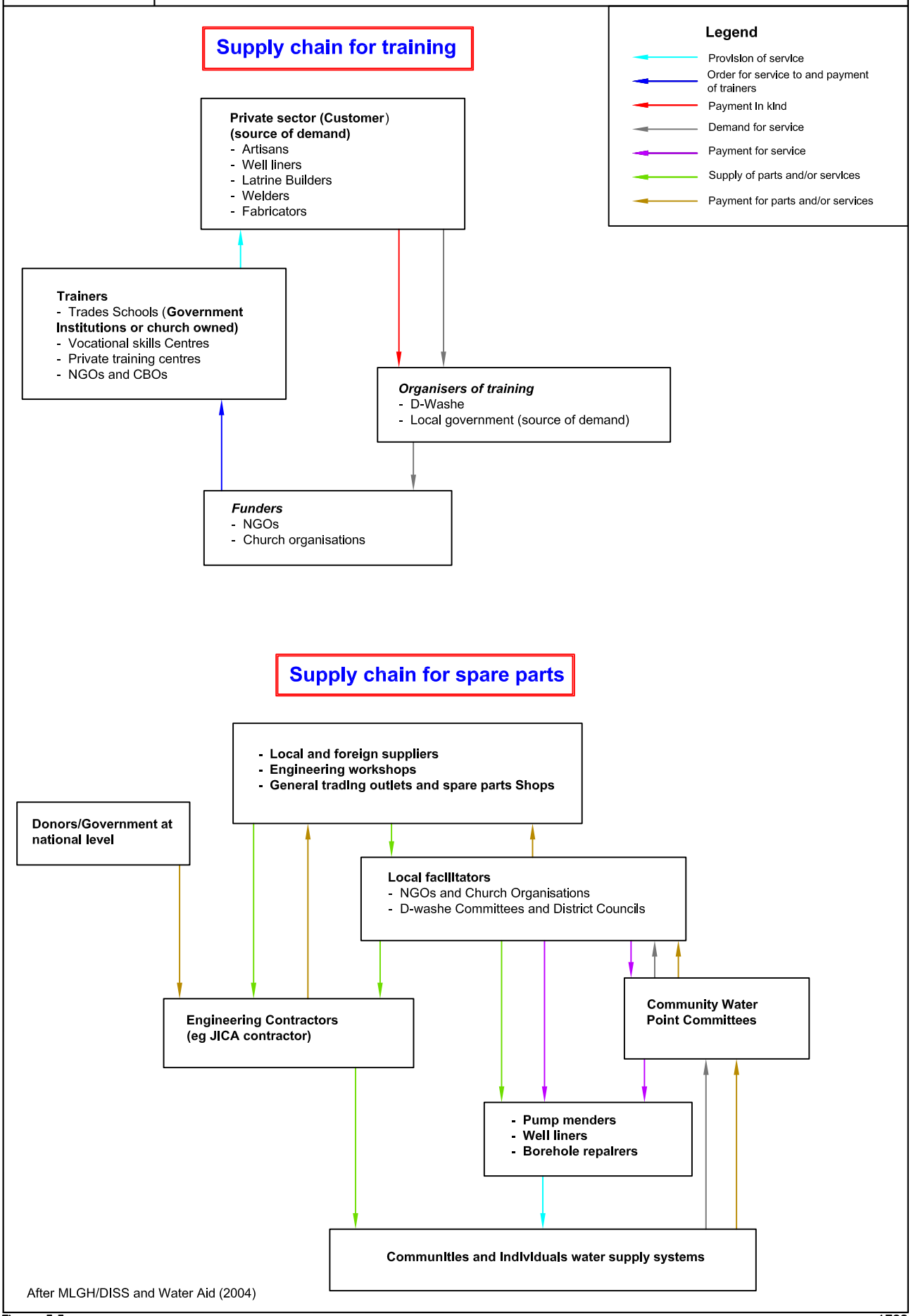


Abbreviations:
CM = Community Merchant (Retail)
CPA = Community Pump Attendant
PSA = Private Sector Artisian
DPM = District Pump Mechanic
DWE = District Water Engineer

After RWE Dodoma and Water Aid (2004)

WATER MANAGEMENT CONSULTANTS

Figure 3.3 Supply chains in Zambia



After MLGH/DISS and Water Aid (2004)

Figure 3.3

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4 GOVERNMENT CAPACITY

4.1 Introduction

This chapter concerns those levels and aspects of government capacity which have a bearing upon the involvement and success of small-scale PSP. It is possible to understand the findings of the individual country surveys more broadly by comparing and contrasting across countries. This may shed light on how the degree of government decentralisation affects capacity. It is also possible to compare the findings of the field work with the findings of the literature review; since the literature is to a large extent an expression of what we think are the actual situations and solutions, comparison will expose any unrealistic assumptions.

The inception report summarised the objective of the surveys with respect to government capacity as being to identify: who in government is responsible for involving the private sector, what are they responsible for doing, where in the government structure are they located, are they able to do their job, are they the right staff, which part of government is most effective in helping PSP in rural water supply.

The inception report proposed that these findings be presented in country reports which would attempt to describe the present understanding of these roles and responsibilities, as well as describing organisational linkages, current knowledge requirements and present views on the present purpose and need for regulation (WMC, 2004b: 27).

This section attempts to bring together the findings of all three country reports, by focusing on aspects of policy, legislation, responsibilities and linkages, financial issues and finally identification of needs. Its purpose is to present an improved understanding of the role of government in PSP in rural water supply.

It is significant that in all three countries there was found to be little evidence of explicit government systems or responsibilities for enabling growth and change in the private sectors involvement in rural water supply. This means that in general – whilst there is the desire and understanding to involve the private sector – no specific or special mechanisms have been put in place to make a change happen. Consequently it appears that existing public sector employees are ‘expected’ to assume responsibility for encouraging private sector involvement without there being any specialist posts created or modifications of job descriptions. Given the absence of clear roles and responsibilities for small-scale PSP under the public sector, the country teams were precluded from questioning how efficient governments are in performing these roles.

4.2 Policies

In all three countries the teams did not feel there was an adequate policy statement for the promotion of small-scale private sector in rural water supply. In Ghana a number of pilot projects have been launched regarding private sector involvement in small towns water supply under the broader notion of privatisation in the water sector, but the researchers note that "currently, there is no government policy on small-scale PSP in rural water delivery." Work is presently underway in Ghana to consolidate and update various components of its water policy (Ghana Report: 16). In Zambia it was noted that the present fragmentation of water sector means it is difficult to determine responsibilities easily. But whilst there is very little information available on policy regarding small-scale PSP there is a history of small-scale private sector involvement. Zambia's present water policy dates back to 1994 and there are initiatives presently underway to call for its revision.

The team in Zambia was able to make some specific recommendations regarding the content of policy and saw a policy very much as the mechanism to encourage and stimulate PSP. The type of policy that they seek to develop is permissive rather than preventive, and would seek to establish tax incentives and NGO / donor involvement (Zambia Report: 16). Government officers interviewed in Zambia thought it would be difficult to engage the private sector without first being provided a lead by policy (Zambia Report: 26). They also noted the lack of clarity between the roles of different government departments.

In Tanzania the private sector themselves were able to identify a hierarchy of the problems they face during a workshop hosted by the country team (Tanzania Report: 25). The private sector participants identified 5 policy related problems, 4 capital, 3 spare parts, 3 contractual and 1 leadership related problem. It appears that the private sector in Tanzania see policy presenting problems when it omits trying to involve and understand the private sector. Specific policy issues concerned the failure to address the training needs of the private sector and also when the definition of the private sector is blurred by other terminology such as 'informal sector'. It is important to note, however, that Tanzania's water policy was recently revised following extensive consultation (Government of Tanzania, 2002). Even so the country team found it to be "inconsistent…towards the needs and promotion of small scale private sector." This inconsistency reflects the fact that the law does not yet reflect what the policy is saying.

At the time it was written Tanzania's water policy (Box 1) was certainly forward looking; it makes specific provisions for private sector participation.

Box 1 Tanzania National Water Policy Section II Rural Water Supply.

Paragraph 4.2 Private Sector Participation

Goal: Improved service delivery levels through enhanced private sector participation in rural water supply and sanitation services

Water supply development and delivery has been dominated by the public sector. The private sector is at infancy and its involvement has been limited and hence its slow growth. Involvement of the private sector in the delivery of water supply services will improve efficiency and effectiveness and enhance development and sustainability of service delivery. In order to promote Private Sector Participation in rural water supply and sanitation services the following will be undertaken:

(i) Participation of the private sector in service delivery will be promoted,

(ii) An enabling environment for increased private sector involvement, including incentives and legal recognition, will be created,

(iii) Assistance will be given to private sector and Districts Councils to strengthen their capacities.

(iv) Communities will be educated on the importance of the private sector participation in the provision of rural water supply and sanitation services

It is clearly difficult for water policy to predict future conditions. Consequently, it could be argued that policy provisions which limit themselves to setting out the broad principles for PSP, together with identifying those responsible is more likely to have future relevance than a policy which focuses more on exact standards and procedures.

All three countries are therefore approaching PSP in what they perceive to be an inadequate policy environment. However, their experience also shows that there are limits to what we can expect a water policy to achieve. It may be that a perfect policy environment will not exist. It could be useful for the multi-stakeholder working groups (MSWGs) to consider what can reasonably be expected to result from a water policy and to what extent policy could specify and allocate responsibilities for PSP. It is a common observation that the absence of policy statements establishing responsibilities for PSP leads to considerable uncertainty. And it follows that without clearly established responsibilities, PSP in rural water supply fails to find a home in government structures.

The leadership and starting point for PSP involvement is widely seen as a government responsibility and this is a fundamental assumption that needs careful consideration. It means that government must have a very clear vision of what it will do and it implies that the public will wait for the governments lead and that the private sector needs to be urged forwards rather than reigned in.

The experience from Tanzania also raises another important policy related issue, which is that for a policy to be effective there needs to a decentralised system of officers capable of interpreting and applying the policy in the field. Whilst the legislative reforms necessary to enable government to decentralise are being driven ahead, staffing the structure with competent and experienced staff will take a significant amount of time. What period of time do the MSWGs believe is realistically required to achieve an effectively staffed decentralised government in their country, and what forms of interim management for PSP could be put in place now?

The literature review (WMC, 2004a) recognised that "a combination of innovative policies and flexible funding arrangements will be needed to address the needs of communities and partnerships between the state, the private sector and civil society. Such partnerships need to create co-operative management arrangements that work for people." It went on to note that an indicator of a working decentralised government would be appropriate stakeholders taking appropriate decisions at an appropriate level.

It should also be borne in mind that small-scale PSP in rural water supply has cross cutting benefits to other areas of policy and all three countries noted its positive contribution to employment and the local economy.

Policy – Key Points:

- Perfect policy is unlikely to be found. But the explicit vision and action of government is essential to provide direction and leadership for PSP involvement.
- A policy that establishes principles and procedures is likely to be more effective than a policy that sets standards to be achieved. But for the principles to have any meaning to local people, decentralised government has to be populated by officers having the understanding and discretion to apply the policy on the ground.
- Some policy issues must be clarified in detail by government – especially where government aims to establish its role as regulator. These issues can be difficult to identify and isolate but are likely to include:
    - What should people pay for water ?
    - What – if anything – will government contribute to the cost ?
    - How is the private sector to be selected ?
    - What powers are to be given to government to enable them to regulate ?
    - What preventive and penalty measures are needed ?
- It is also important to maintain focus on the bigger picture. The public's need for water is a priority. Our attempts to develop a good approach should not impede present efforts to improve access to water. Flexibility and learning by doing appear to be very important because it may simply be too early to find answers to all of the policy issues.

4.3 Legislation

There was considerable similarity in what the three countries say regarding legislation, but this differed considerably from the ideas presented in the literature and summarised in the inception report. It is important to ask why the 'academic/theoretical' appreciation is so different from the views gained from the field as this will go some way towards addressing our expectations.

All three countries note there is no specific or effective legislation in place to enable or regulate small-scale PSP in rural water supply, and all three countries see a need for water law specific to the needs of the rural population (Zambia Report: 15, 28; Ghana Report: 16; Tanzania Report: 32-3). It is useful to remember that 22 million people in these countries live in rural areas without a water supply, compared with the 3.6 million people living in urban areas without a water supply (WMC, 2004b: 1).

In general government officers understood their roles and responsibilities in relation to the existing legal frameworks for water, although they tend to lack a good working knowledge of specific detail of the law itself (Tanzania Report: 15; Zambia Report: ; Ghana Report: 40). Knowledge among the public of water law was generally poor. As mentioned in the inception report, there is almost no literature regarding the effectiveness of rural water law in Africa. However, government officials in the three countries were able to contribute a limited range of views on the inadequacies of current legislation. The bulk of these comments concern business / regulation, contracting and tendering. and could be said to be of a regulatory nature. That governments' concerns are focused upon regulating and accountability through good practice is entirely understandable. But this narrow and more focused view is at odds with the ideas for legal reform abounding in the literature, where there are calls for a new water law framework that spans human rights, entitlement, governance, the investment framework and planning (WMC, 2004a: 29, Table 4.2). It is noticeable that the majority (but not all) of these perspectives seem to be concerned with using the law as a means to require specific sets of goals to be met. They have little to say about the broader role of law in, for example, conveying powers and responsibilities upon the civil service.

The country level perspectives provided by the present research identify a specific range of straightforward legal issues concerned with national (and not international) law. These are not concerned with requirements for coverage or rights, but concern enabling the government to regulate and the private sector to be regulated. It is worth highlighting that before local government can regulate it will need to be empowered by law to access the necessary funds and procedures to become a regulator. It would also appear that one of the real functions of legal reform with respect to PSP is in fact to establish the basis for government to become the regulator. Having the government act as regulator is of course only one way of ensuring good relations between the public and the private sector and having regulation doesn't mean there will be PSP involvement. It is therefore worth considering how the law has a broader role to play and, for example, whether a right to water recognised in national law would lead to increased coverage and more opportunity for the private sector.

What is needed for the present is the identification of exactly where law is strictly necessary so that we can start to engage the private sector more effectively. Much uncertainty in this area arises from the fact that law remains largely inaccessible and mysterious to the non legal profession. However, it is a valid and important exercise for the non lawyer to highlight those specific issues which the law should address as this prevents the law being seen as "a magic cure" which we must wait for and can do nothing about.

So for example we hear from Ashanti, Brong Ahafo and Western regions of Ghana that what is needed is transparent identification, selection and good supervision and monitoring of the private sector partners. The Tanzanian team stressed that national level government should develop a legal framework for the guidance and monitoring of the small scale private sector in rural water supply, given that the national water policy has already declared that there are no political barriers for such participation. In Zambia the surveys in five districts lead the team to identify the need for guidance in ten specific areas. Whilst these covered the kind of support local government should provide to the small-scale private sector (ie on tendering, on monitoring and regulation of small-scale private sector, the roles of various government departments and community subsidies), they limit the requirement for legal guidance to the contracting of services and goods from the private sector (Zambia Report: 16).

It is clear that the MSWGs will have to decide what has to be done to reconcile the calls for major overhauls of national water law versus more specific and localised calls for legal guidance on procedural issues. For example, government may find it impossible to act as a regulator without first addressing issues of national water law including:

- Clear identification of government's responsibilities as the 'supplier of last resort'. (This term covers the roles and responsibilities allocated as a contingency in the event of contract failures, stranding, suspensions caused by, for example, floods, droughts, strikes, insolvency etc - see Tanzania Report: 18).
- What does the consumer pay ?
- What does the government pay ?
- What powers and responsibilities have to be established for civil servants to act as regulators of rural water contracts ?

The surveys, however, clearly show that the procedures for regulating local contractors on the ground are of more immediate and higher priority to the front line professionals. Tanzania put the lack of "binding legal power" of contracts as a major finding of its survey (Tanzania Report: 3). The conclusions the MSWGs come to may be a compromise but it seems reasonable to suggest that addressing local concerns first will be of more immediate benefit to the public, whilst overhauling national water law can be slow and costly. It is very important to note that what were perceived, as legal issues at the local level may in fact be resolved without the need for legislation. For example, locally developed codes of practice – developed by local professionals – could be used to start the ball rolling. The inception report followed up the review of literature with a similar set of suggestions:

- Identifying priority legal issues which can be addressed at the local level and which are likely to have a large impact and public benefit at relatively low cost.
- Identifying those aspects in which the engagement of the local private sector is likely to operationalise and achieve the objectives of the right to water.
- Identifying what is needed to enable local level contracts to be fully recognized and supported by the law (WMC, 2004a: 14).

Comparing the results of the surveys with the outputs from the knowledge review also identifies a number of very important issues which this project may overlook. There may be a need for promoting civic education and knowledge of the law itself. This is particularly important as the public are no longer 'passive recipients' but active partners in the provision of their own water supplies. A better informed public and private sector should enable more effective legislation. The MSWGs may wish to decide the extent to which public education with respect to the law has to be part of a PSP approach. None of the country teams have thus far identified a need for guidelines for the public or communities.

A second facet that appears in the literature review but is omitted from the surveys is that of water rights – which is used here in its legal context of an individual entitlement to use or enjoy water. Two aspects of this may have future importance. Firstly, issues concerning conflict over shared sources and, secondly, fears of 'backdoor privatisation'. Because these issues are known to cause significant public dissatisfaction it is right for the MSWGs to adopt a position regarding water rights as they seek to promote PSP. It may be that the MSWGs seek to safeguard public ownership by ensuring a high public profile throughout the PSP process. The MSWGs may also see a role for themselves in advocacy and lobbying of government for the legal recognition of water rights in the context of water as a social good.

Legislation - Key Points

- Present in-country focus of water law reform regarding PSP concerns establishing government as regulator. But does having government as a regulator create PSP opportunities? What else is needed?
- Need to know what special powers / resources/ responsibilities have to be established by national law for government to act as a regulator /facilitator. Would these enable government to manage local contracts effectively?
- Can the specific points of the law – which would enable PSP – be identified? Could these be addressed through local codes of practice rather than law reform?
- Is educating the public on the legal aspects of PSP a government responsibility, and in promoting PSP is there also a responsibility to safeguard water rights?

4.4 Responsibilities, structures and linkages

Whilst the overall structures for decentralised government are understood in the three study countries, the degree to which there is experience of how this will work on the ground varies significantly. It is fair to say – with respect to rural water supply – the detail of how it will be administered by decentralised government is still emerging. Therefore being able to say how the sector will work in five years time is elusive and the source of considerable confusion. It may help the MSWGs to accept that the future is uncertain and that changes are likely, and that whatever they propose as guidance for PSP in Phase 3 of this project should therefore be flexible, adaptive and learn from the lessons that emerge.

In essence the structure of decentralised government for rural water is similar in the three countries (Ghana p41, Tanzania p31, Zambia p24).

Central Government Policy development > Legislation Training / Human Resource Development Regulation and oversight of statutory bodies Monitoring
District / local government level Local planning Local regulation, monitoring, facilitation Engage / encourage private sector Possible training role
Community level Village government / supply owners Planning Management

This 'three tier model' is often ambiguous regarding the role of regional level professional staff. The model also suggests the possibility for a district water engineer to be the direct employee of the district council rather than a ministry. There are differences in the extent of power and responsibility invested in formal village government, and the degree to which community based organisations and committees have a role to play.

Localised experience in Tanzania, of how this works in practice is very useful and may predict some of the likely problems to be encountered. Zambia's experience with District water, sanitation, hygiene and education (D-WASHE) committees provides experience of how local government integrates and shares these responsibilities. Both in Ghana and Tanzania country teams highlighted concern for good relations between local government and village organisations. In Ghana it was reported that a community organisation's abilities and commercial sense may restrict the role it can play in contract award (Ghana Report: 20). In Tanzania major findings of their work were:

- A lack of proper cooperation between village government, water committee and private operator can lead to village governments and water committees abdicating their role.
- Dishonest village government members threaten to reject the private operator at the time of renewing contracts if he does not adhere to their selfish interests (Tanzania Report: 3).

It is clear from these experiences that whereas we can assume a community will develop reasonable relations with local government or NGOs when they are the suppliers of water, this is not always the case with the private sector. We therefore need to identify how the stakeholders can be protected such that they can work together effectively – if not always amicably. This suggests a need for mechanisms to resolve disputes rather than a need for strict contract enforcement and penalties. It is unclear who the people with the skills to solve these problems are and where they are to be located. It is clear that keeping village level contracts working and gaining satisfaction is a priority expressed in all three countries.

Alongside this grass roots focus the three countries also expressed concern about the general confusion surrounding responsibilities as the sectors become more decentralised. Who should be doing what is not clear, and this creates conflict and duplicates effort across the sector and within government itself. A PSP approach is obviously broader than the 'donor–recipient' approach (situation A in Figure 4.1) because it is dependant upon two more partners (situation B in Figure 4.1). It depends upon a wide range of government systems and facilities being in place and competently staffed and it depends upon there being an interested and competent private sector.

The Tanzania team also noted an important issue if government is to present a consistent opportunity for PSP, which is that 'donors' should not act outside of a PSP policy. It could be argued that an unfair 'market' is created when a donor undercuts requirements established set by government. How the private sector then responds to less 'generous' offers is not well reported. In considering these points MSWG's may wish to ask if the consistent commitment of donors is a realistic expectation, or is it possible to assume that donors can and will follow government guidance? In reality are donors moving away from direct involvement in rural water? What types of relationship between donors, government, private sector and communities are likely to enable PSP?

Donor organisations appear to have high expectations for the performance of the private sector in rural water provision. In particular PSP is increasingly seen as being crucial for the future of the sector (Ghana Report: 22). The involvement of the private sector and the provision of rural water are seen as efforts to alleviate poverty. At present there is little investment in rural PSP and not surprisingly there is only limited interest from the private sector. The most likely way that a 'demand' for the services of the private sector will be realised in the near future is if governments award contracts and governments are most likely to finance these contracts from donor sources. It is probably the case that the donors' view towards the rural private sector will be the major factor determining its success in the near future. We should ask if it is fair to judge the performance of the private sector against such high expectations and its contribution to poverty alleviation over the short term? If indeed it is poverty that presently prevents rural populations from engaging the private sector to provide them with water, PSP is unlikely to succeed unless the public sector supports it.

The donors were also able to criticise other partners in rural water: mentioning inefficiencies and duplication by government as well as the limitations of the approaches of NGOs. But they add that collaboration between the various partners could be greatly improved (Ghana Report: 22).

In all three countries a wide range of problems associated with institutional responsibilities and structures could be identified, however the lack of clear leadership to drive PSP forward appears to be a prime cause for confusion and uncertainty. Unclear decentralised systems combined with a general lack of funding represent an almost unworkable situation where even grass roots NGO's would struggle to improve water supplies. In a nutshell the transformation which has to emerge in the near future is that a district water engineer is able to finance and award local contracts quickly and efficiently. At which point increasingly formal systems of regulation will have to begin to emerge.

Responsibilities, structures and linkages - Key points.

- Responsibility must be established for assisting the relationship between the private sector and a community body, such that satisfaction is achieved and progress is made. Contracts will become increasingly important, but making them workable and acceptable will require hands-on management. This appears to be a task for local government.

- A clear lead is called for from government such that duplication, conflict and confusion is avoided. The present approach of "expecting" civil servants to assume responsibilities as a result of new policy directions is not working. Local government should therefore be supported in taking up the directions of policy and central government.

- Donor interest and finance is most likely to be the driver for PSP in the near future. In the mid term it is likely to be public funds awarded through government contracts and ultimately by direct engagement by the public. At present investment is low and donor commitment is uncertain.

- Decentralisation of government systems is ongoing. The approach to PSP must evolve alongside these emerging systems and be able to encourage and monitor PSP accordingly. The performance of the private sector under these conditions must be determined by fair means.

- It may presently be impossible to specify an overall approach to PSP, but it appears possible to identify some priority actions in detail. By enabling pilot programmes, learning and testing to be part of the launch of PSP, the extent to which a much wider set of activities become necessary will be better understood.

4.5 Financial issues

There is little doubt or uncertainty regarding the financial issues identified by the three country teams; there are considerable similarities in their findings. Their concerns fall into six categories:

1) The rural water sector is precariously under-funded, and both for the benefit of the public and private sector there must be a concerted effort to attract investment. Currently, the small-scale private sector experiences great difficulty in accessing capital which it needs to either start up or expand its activities. Consequently, it is not in a position where it can compete with 'established' service providers. Direct government intervention may be required to overcome these difficulties (Ghana Report: 17).

2) There is a need to establish where finance for the sector is to come from, especially because this would stimulate interest from the small-scale private sector.

3) There has to be clarity of roles, transparency and efficiency in the management and administration of sector financing otherwise the private sector remains wary of public sector contracts.

4) Guidance is needed on how to avoid or respond to project level financial difficulties, especially how to provide a remedy for these problems at the local level.

5) There is concern that despite government establishing sector procedures, external funding agencies may ignore them and use different and possibly counter productive approaches (Ghana Report: 23). This is exemplified by the supply chain map for rural water financing in Ghana (Figure 4.2) which shows that entry points for donors differ widely. The sector therefore presents many different faces to the private sector and may fail to award contracts in some situations (Ghana Report: 36). The fact that there are so many routes open to invest in rural water probably reflects the desperate need to attract financing – but also renders the sector difficult to control.

6) There is wide recognition that under normal conditions spare parts sales is not a viable business, yet it is an essential one. Most spare part suppliers were very unhappy with the remuneration they received for this service (Ghana Report: 41) The time may have come for government to step in and assist in provision.

7) The question of what communities are expected to pay remains largely un-addressed in practice. In general there is a diminishing sense of the importance of community capital contribution and an increase in the sense of importance of the full payment of O&M costs (Ghana Report: 13). A small-scale private sector business will have to depend upon the revenue stream from a water supply in order to keep it running so there is little doubt that wide scale PSP in rural water supply cannot be realised until this question is answered.

An additional and important concern was not raised by the country teams, and that is what mechanisms are needed in order to monitor the finance managers – who are largely the civil service? After all, with decentralisation, local government increasingly becomes the eyes and ears of the investors and a good degree of accountability will have to exist.

These suggestions fall broadly in line with the opinions put forward in the literature and reported in the project inception report. PSP can hardly be expected to work when we invest so little in the sector. It is often not possible to make a living from selling pump spares, and having communities contribute a few percent of the capital cost of a supply may have little to do with the formation of a sense of ownership.

There are a number of other themes running across the country reports and these also broadly agree with the findings from the literature review. It is widely believed that the private sector will be a more cost effective means of delivering rural water services (Ghana Report: 13; Tanzania Report: 29), and that as part of the local community they can be held accountable for their performance.

The Tanzanian country team concludes that a special unit may be needed to be charged with the responsibility to properly address this range of issues with regard to the private sector (Tanzania Report: 34). It may be argued that it is difficult to see how the ordinary mechanisms of government are going to be able to tackle such a problem. Resorting to a small and specialised team which has been given the necessary powers and authority may be the best way to invigorate financing for rural PSP.

Financial Issues - Key points

- The rural water sector is presently so under funded that it is unrealistic to expect PSP to happen. A major effort is required to secure funding for the sector.
- The small-scale private sector has great difficulty in getting capital. Because it cannot start up or expand its activities it cannot compete.
- There are lessons to be learned: it is not possible to live from the sale of pump spares and a community capital contribution may no longer be relevant.
- There is a significant need for clarity of roles, disbursement routes and monitoring procedures that ensure funds for rural water will flow from central government to the projects. Such accountability is essential in order to attract investment.

Figure 4.1 Institutional relationships

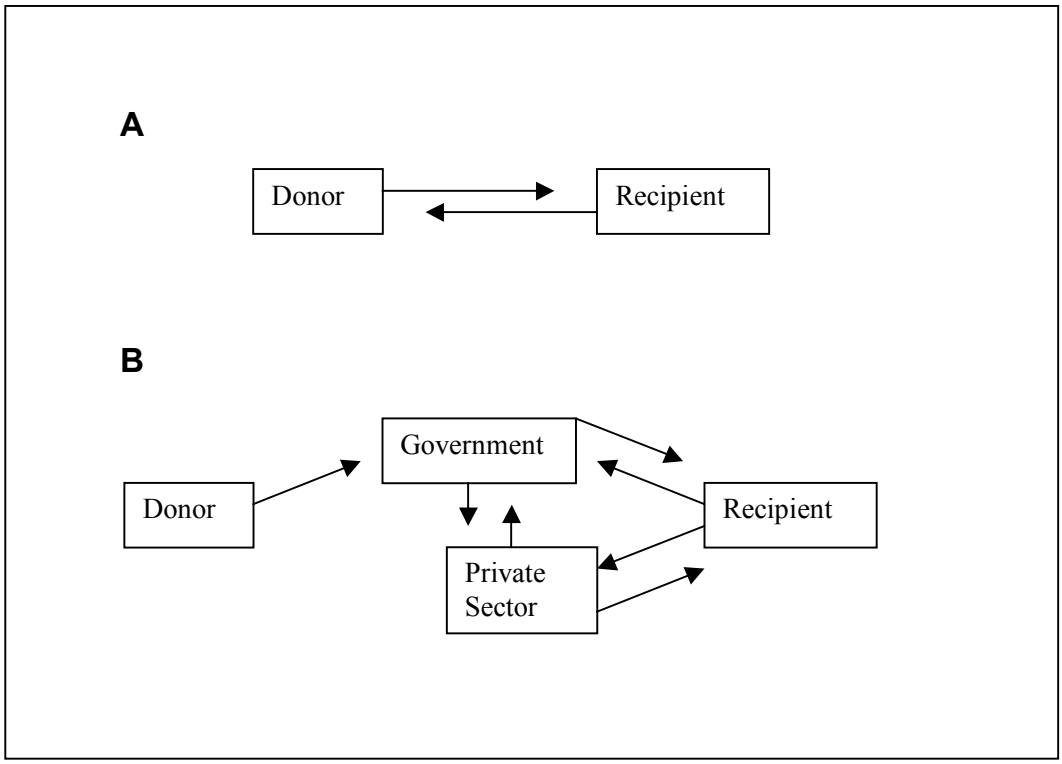

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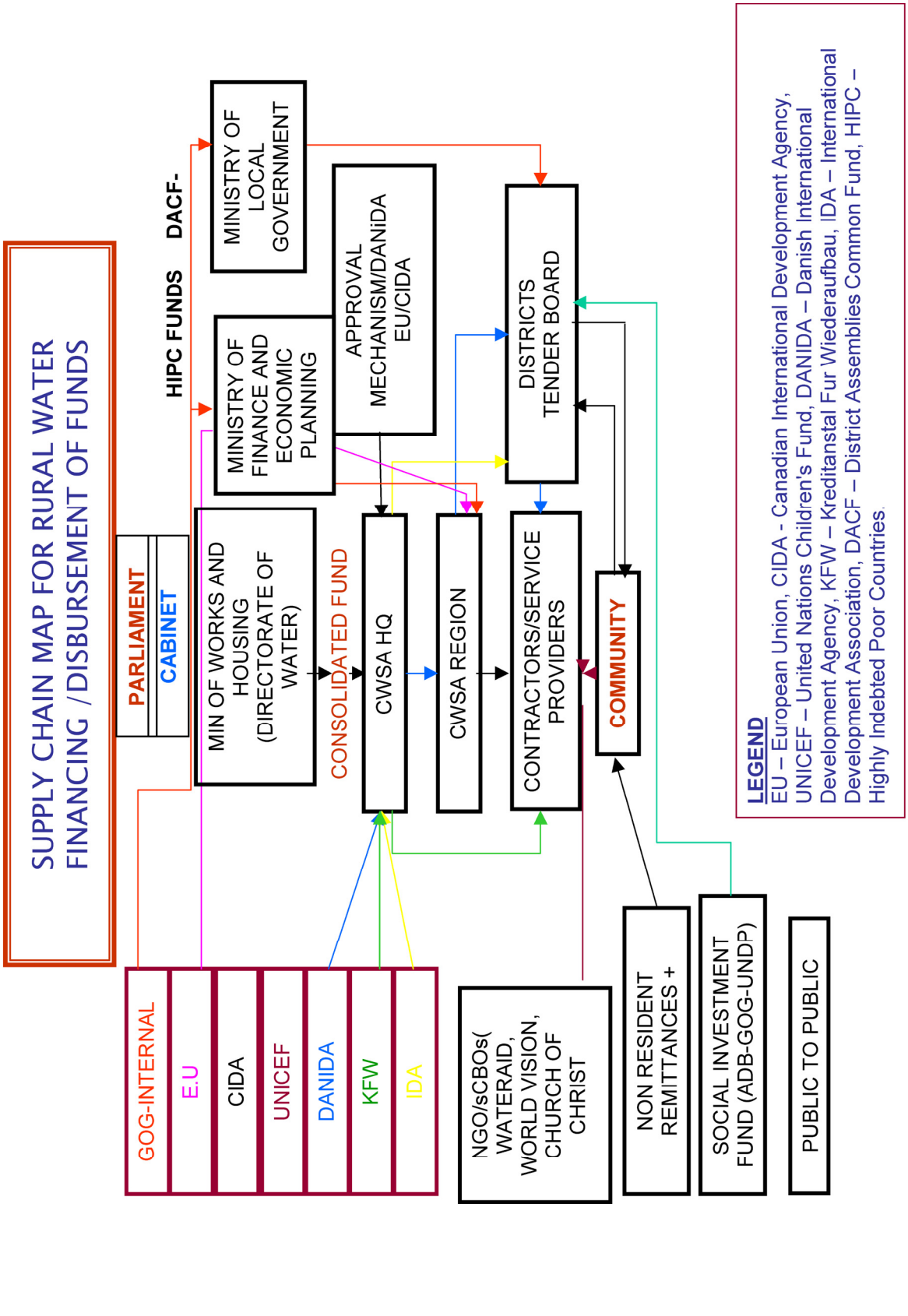
Figure 4.2 Supply chain for rural water finance in Ghana



After CWSA and Water Aid (2004)

5 TOWARDS THE DEVELOPMENT OF GUIDELINES

5.1 Overview

The purpose of this section, based on the findings of the field surveys (Sections 3 and 4), is to present a tool to facilitate the work of the MSWGs during Phase 3 of this project. The tasks of the MSWGs are to formulate a vision of the future role of the private sector in rural water supply and to develop guidelines for government and other stakeholders to implement to achieve that vision. The tool consists of a structured set of questions which are intended to orient the MSWGs as to the possible scope of the guidelines, although not their content.

The research broadly shows that:

- The demand from the government in Tanzania for the private sector to operate and maintain rural water schemes is increasing. In Ghana and Zambia the demand for services (to provide spare parts and carry out repairs on rural water infrastructure) comes from communities and not from government, but is on a very small scale owing to communities' low ability and willingness to pay. In providing any of these services the private sector operator faces a lack of working capital to finance his activities until payment is received and a lack of knowledge of ways round this situation. Turnover is very low, profits supplement other forms of subsistence income and working capital remains very limited. In short, the demand for RWS services from the small-scale private sector is not yet sufficient to support a full time livelihood.

- There are no government structures in place whose responsibility it is to promote or even monitor the emergence of the private sector. While there might be political desire to encourage the private sector to provide services there is no institutional and financial framework that supports this desire.

- The legal framework in all three countries makes no provision for the involvement of the private sector.

- The activities of NGOs in the study areas include building the capacity of the small-scale private sector to provide services.

There is therefore considerable scope for the MSWGs to develop the way forward for government on the question of the future for small-scale private sector participation in the rural water sector.

5.2 Towards guidelines

A flow chart is presented in Figure 5.1 consisting of a structured series of questions that aim to aid understanding why it is that the small-scale private sector might need to be involved in rural water supply. The objective underlying the questions relates to maximising coverage in rural areas with functioning water points. The ultimate question in this series asks "Does Government wish to enhance the participation of the small-scale private sector in RWS ?" If the answer to this is positive then the role of the MSWGs as envisaged in the design of this project is justified.

The tasks of the MSWGs are in bold type. They consist of defining a vision of the future role of the small-scale private sector and developing guidelines for enhanced participation. The process that the guidelines should cover is suggested in the stippled box. The scope of the guidelines starts with a scientific assessment, carried out by Government, of the demand for water services and expressed in the amount of money per geographical area to be spent (either by Government or by communities) on purchase of services.

The demand study, to be carried out in future by Government if it wishes to implement the recommendations of the present study, quantifies demand for services, the fundamental factor to which the private sector should respond. The Government then presents the results of the demand study to a sample of the private sector in the geographical areas of interest and consults on whether the market is of interest to the private sector. An underlying premise at this point is that the private sector hasn't identified the market by itself. Depending on the response of the private sector the Government is then able to identify whether or not it has to increase or 'engineer' the demand for services by investing in the sector or whether it can assist the private sector just by creating an enabling environment. The possible strategies that Government can adopt in each case are shown in the final two boxes.

The process identified here is not intended to be exhaustive or indeed the only answer. The MSWGs are encouraged to identify additional or alternative steps and strategies that they consider to be important and develop guidelines for them.

Alongside consideration of Figure 5.1 it is suggested that the following additional fundamental questions should also be addressed and documented by the multi-stakeholder working groups in Phase 3:

- On the existing evidence, is the small-scale private sector making a useful contribution to rural water supplies within the bigger picture in the country ?
- What role could the rural based private sector potentially take and what services should the private sector provide in the rural water sector ?
- Based on the above (if positive), what changes to the existing institutional framework for the rural water sector are necessary to facilitate the participation of the small scale private sector? Note that institutional roles and responsibilities should be clearly defined and that there should be no undefined duplication.
- Should government provide support/assistance to the private sector to encourage it to emerge and provide the foreseen types of services. If so, what kind of support (financial, legal, institutional) should be provided? Which institutions should provide such support and how should the support best be provided?

- Specifically regarding financial support, is consideration necessary of a new or re-designed financial framework or financial mechanisms for the private sector in rural areas?

- Assuming that no fundamental institutional or legal change is possible in the short term, what can be done by government and NGOs at local level to encourage the participation of the small scale private sector?

Based on the above, the multi-stakeholder working groups should identify and document:

- The groups of stakeholders which need guidance in order that the participation of the private sector is enhanced.

- The form the guidance materials should take.

- The detailed content of the guidelines, ie list the actions to be taken by each stakeholder group that will lead to enhanced participation by the private sector.

- How best to disseminate the guidelines so that uptake by the stakeholder groups who are targeted is maximised.

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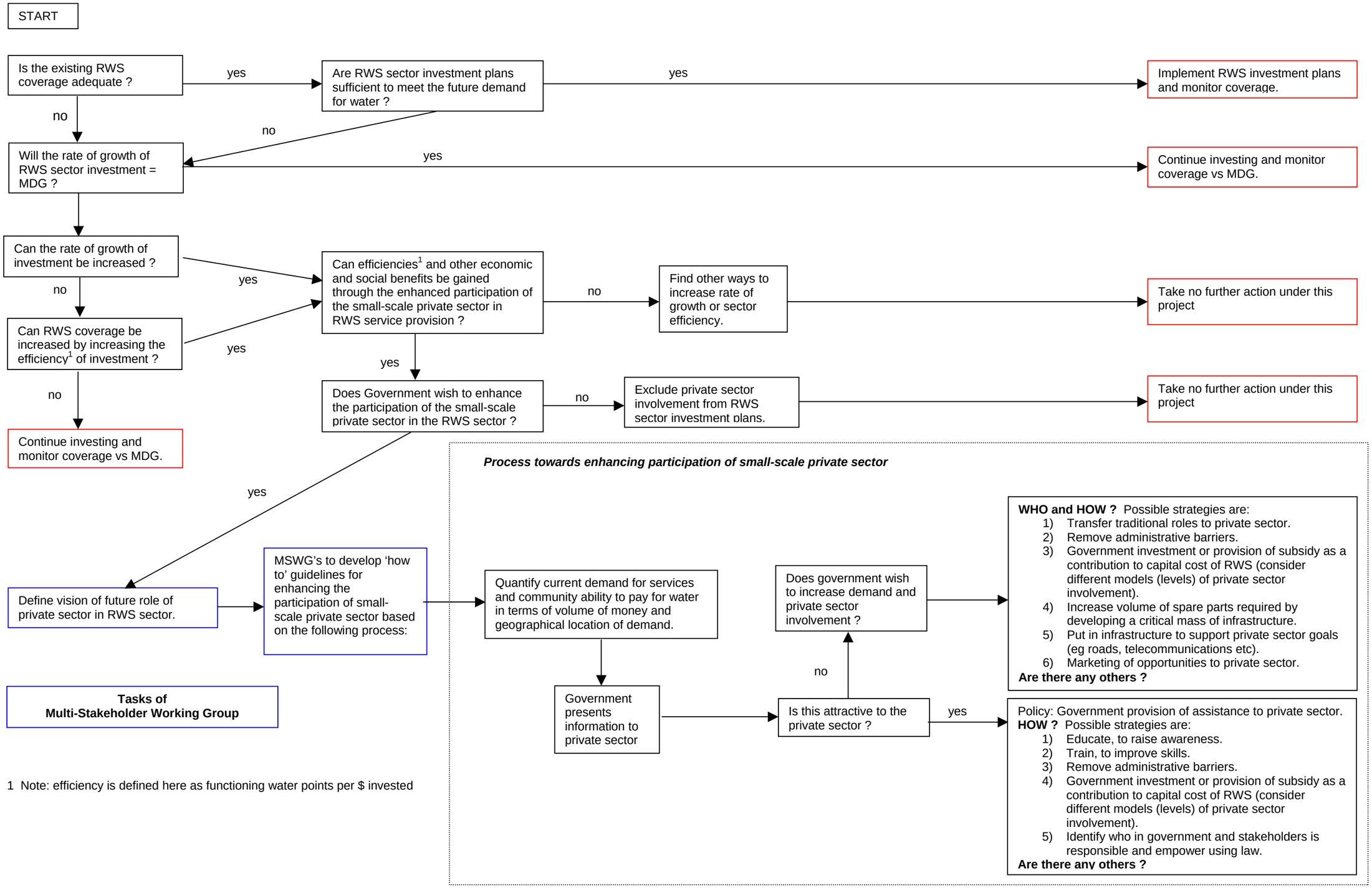
Figure 5.1 Flow chart to assist MSWGs to develop guidelines for enhanced small scale PSP in the rural water sector



1 Note: efficiency is defined here as functioning water points per $ invested

6 CONCLUSIONS

6.1 Private sector capacity

The surveys reported herein have provided a 'snapshot' of private sector involvement in the rural water sector. Most operators are members of the communities that they work within. Overall, small-scale private sector participation in the provision of rural water services is mostly 'informal' and restricted to repair and maintenance services and the supply of spare parts. The three study countries are seen to have different levels of activity. Tanzania has made most progress in the sense that the government is actively encouraging formal private sector participation in rural water supplies. This process does not yet seem to have started in Ghana or Zambia, where demand for services from small-scale operators is driven by communities and is limited by willingness and ability to pay.

Most small operators do not depend solely on the water sector for their livelihood, but rather water sector operations supplement other forms of income, usually farming, in rural areas. May operators are involved in water supply out of a sense of duty to the community rather than for profit; communities often do not have the willingness or ability to pay in cash. Small operators characteristically lack training (human capital) and they often do not have access to information regarding market opportunities.

Supply chains for the provision of parts and services exist in some form. Few of them are fully private and none were reported to be successfully meeting the needs of the consumers, ie providing suitable services at an acceptable price in a timely manner. Most chains had significant donor/NGO/government agency involvement somewhere in the chain.

Demand (the desire for services coupled with the ability to pay) is seen as the most important factor affecting private sector involvement. Demand from communities is presently low. Government-engineered demand is currently also low (insufficient sector funding, as yet insufficient vision for enhancing the role of the small private sector and insufficiently decentralised financial frameworks), but this can (and should) increase substantially, with great potential for increasing the involvement of the private sector.

6.2 Institutional framework

Decentralisation of government systems is ongoing. The approach to PSP must evolve alongside these emerging systems and be able to encourage and monitor PSP accordingly. The performance of the private sector under these conditions must be determined by fair means.

Responsibility must be established for assisting the relationship between the private sector and a community body, such that satisfaction is achieved and progress is made. Contracts will become increasingly important, but making them workable and acceptable will require hands-on management. This appears to be a task for local government.

A clear lead is called for from government such that duplication, conflict and confusion is avoided. The present approach of 'expecting' civil servants to assume responsibilities as a result of new policy directions is not working. Local government should therefore be supported in taking up the directions of policy and central government.

A policy that establishes principles and procedures is likely to be more effective than a policy that sets standards to be achieved. But for the principles to have any meaning to local people, decentralised government has to be populated by officers having the understanding and discretion to apply the policy on the ground. The explicit vision and action of government is essential to provide direction and leadership for PSP involvement.

It may presently be impossible to specify an overall approach to PSP, but it appears possible to identify some priority actions in detail. By enabling pilot programmes, learning and testing to be part of the launch of PSP, the extent to which a much wider set of activities become necessary will be better understood.

6.3 Legal framework

The law should be viewed as a tool for meeting certain objectives or regulatory procedures to be met. At present national laws do not specifically make provision for the use of the private sector. Since national legislation is difficult to change, it might be that local solutions are appropriate. There is a need to know what must be put in place either at local or national level to empower the right people, for example, the government to act as a regulator of the private sector.

6.4 Financial framework

Financial frameworks are closely linked to decentralisation and local government reform. At present the financial framework in Tanzania appears to be sufficient for involving the small-scale private sector at local level, at least in Dodoma Region. However, in Ghana and Zambia frameworks do not appear to be able to provide opportunities for paid work for small operators in rural water supply. Consequently, at present the demand for the small private sector's services are limited and those operators interviewed do not obtain a livelihood from the sale of pump spares and services.

The small-scale private sector also has great difficulty in getting capital. Because it cannot start up or expand its activities it cannot compete.

There is a significant need for clarity of roles, disbursement routes and monitoring procedures that ensure funds for rural water will flow from central government to the projects. Such accountability is essential in order to attract investment.

Donor interest and finance is most likely to be the driver for PSP in the near future. In the mid term it is likely to be public funds awarded through government contracts and ultimately by direct engagement by the public. At present investment is low and donor commitment is uncertain.

6.5 Discussion

A number of questions and points have arisen during the course of the preparation of this report. Some of these are documented here as they may be of assistance to the MSWG's in their deliberations in Phase 3 over a future vision for the small-scale private sector.

A consistent issue arising from the research is that there is no clear lead coming from government on involvement of the private sector. Who should be doing something and what they should be doing are uncertain.

Actual opportunities for the private sector are not being explored or described in private sector terms. It is not clear that what we see as a private sector opportunity is what they see as an opportunity.

Promoting private sector participation is not a complicated problem, but it does consist of very many different components. If it is thought that small-scale PSP can only be promoted once all of these components put in place, then the possibility of PSP contributing to the MDGs and access to water will be stifled. It is necessary to have a method to look at these various components and decide what measures can be implemented in the short and longer terms. Having reduced the problem to a manageable size specific guidance for the shorter and longer term activities that can have an immediate and a longer term benefit to the rural public can be developed.

The research and analysis has shown that most small-scale PSP takes place in the informal sector rather than the formal sector. However, we should be aware of not forcing a conclusion that good PSP is formal PSP. If small-scale operators can survive best in the informal sector then that is how they can survive at present then care is needed if it is suggested that needs to change.

Knowledge and education have an important role in the promotion of small-scale PSP. Private operators need to be taught certain skills to be employable and government staff need to know how to facilitate PSP. The “system” itself needs to adapt and learn as times change. However, it is presently unclear who has responsibility for these areas.

The role of the MSWGs is to develop a vision of the role of the small-scale private sector in rural water supply in five or ten years time. However, the role will be contingent on a range of institutional factors being in place. A core weakness of this research is that too many things are presently changing to be able to make sound predictions about the future PSP environment. For example, will government decentralisation turn out as it is expected to with many functions (technical, financial, administrative) rolled down to the districts, or is this too much to expect ? It will be important for the guideline writers to seek guidance under these circumstances.

Whilst this project is striving to create opportunities for the small scale private sector it is not certain that their broad involvement is an improvement or how this should be found out. To answer this question it is necessary to know how and what to measure. This will not be easy because the systems to engage the private sector are still being developed and are untested themselves. It may be necessary to monitor public as well as private sector performance to arrive at a clear picture.

There is a significant difference between what is considered to be the status of the environment for private sector participation and what in reality exists. Government systems are far less ready to start to deliver rural water services through the private sector than is thought. Investing in PSP for rural water is presently unlikely to be hugely productive in terms of increased water coverage. It is more likely to need to invest in the knowledge and procedures that can lead to experiments in PSP, from which the stakeholders can learn and develop. The current limited funding to the rural sector appears to preclude paving the way for a solid footing upon which PSP could emerge.

The present overall status of small-scale PSP in the rural water sector is less developed than had been expected. Therefore familiarity with and thinking on the subject are even less developed. This suggests that caution should be exercised in developing small-scale PSP.

There is a need to enrich the knowledge, learning and planning environment on small-scale PSP. The overall message at this stage might be 'try it and learn, but don't commit 100% of resources on the one approach'.

6.6 Next steps

The country reports upon which this synthesis report is based will be presented at a multi-stakeholder workshop in each country that will mark the end of Phase 2 of the project. Each workshop will aim to discuss the findings of the studies, seek feedback and plan Phase 3.

In Phase 3 the multi-stakeholder working group in each country will develop a vision for the future role of the small-scale private sector in the respective country and document a series of actions or guidelines to be implemented by a range of stakeholders for enhancing the provision of rural water supply services by the small scale private sector. This report and the respective country reports will inform that process.

Table 4.6 in the inception report (WMC, 2004b) shows the study work plan. Milestones are:

- Each MSWG to have produced a first and second draft of their country-specific guidelines by June 2005, assisted by the country team.
- Workshops to take place in July/August 2005 seeking response to the guidelines from key stakeholder groups (a peer review process).
- Synthesis of generic guidelines for other countries by September 2005.
- Final workshop in September 2005 to assess project outputs and purpose and future directions of work on small-scale PSP.
- Final study report produced and disseminated by end October 2005.

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