

**DEPARTMENT FOR INTERNATIONAL
DEVELOPMENT**

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

R8335

PHASE 2 – SURVEYS

**COUNTRY REPORT
FOR
TANZANIA**

FEBRUARY 2005

**Regional Water Engineer, Dodoma
and WATERAID**

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SUMMARY

The key findings of the surveys are summarized below:

Capacity of small scale private sector operators in rural water supply

29 village water supply schemes were surveyed.

Only one out of twenty nine village water schemes is operated by the village water committee. The remaining 28 village water supply schemes are operated by private operators.

It was observed that in dry seasons when the demand for water from the village water schemes is higher, private operators compete to win contracts to operate the water schemes. In the rainy seasons most of the schemes struggle to find suitable private sector operators.

The main findings of the survey are:

- There is lack of cooperation between village government, water committee and private operator which is caused by weaknesses in the contracts issued to private operators.
- Often village governments interfere with the roles of water committees
- Contracting processes for private operators is lacking in transparency and often is corrupted.
- Ineffective demand base due lack of education on the part of communities on the importance of using clean and safe water resulting into very low sales in the rainy seasons as most communities depend on water from natural sources e.g. swamps This renders the water supply schemes rather unattractive to the private operator as has to meet the monthly fee and running costs..
- Absence of metering systems at domestic points and for in house connections to facilitate monitoring of consumption.
- Contracts have no strong binding legal power.
- Lack of spare parts and competent artisans at community level.
- Old age of the schemes and machinery.
- Financial inabilities on the part of many private sector operators
- Absence of networks or fora for building the social capital of the private operators
- Inadequate knowledge on contractual matters

Capacity of government officers to work with the private sector

The main findings on the surveys on the capacity of Government officers to work with the private sector are as follows:

- Inconsistence of sector policies towards sector needs and promotion of small scale private sector.
- Limited financial capacities of the water committees
- Inadequate knowledge and understanding on how to integrate, promote and monitor small scale private sector participation in water sector.
- Inadequate knowledge on contractual matters in the government officers at the district and village levels

1 INTRODUCTION

1.1 General

This report presents the results of a survey of capacity assessment of government to enable and regulate the private sector and capacity of private sector to handle rural water provision services.

The survey forms Phase 2 of Knowledge and Research (KaR) Project No. R8335 “Small scale private sector participation in the rural water supply sector”. The project started in November 2003 with an Inception Phase 1. The Inception Report, Knowledge Review and information on the project can be found at www.ruralwaterpsp.org.

This report forms one of three country reports produced in Phase 2; the others being reports of similar surveys in the two other study countries. All three reports are summarised in a synthesis report by Water Management Consultants Ltd (WMC).

1.2 Objectives

The problem being investigated by the project originates from the perceived need to investigate the potential for small scale, rural based private enterprises to provide water services to rural communities through contributing to the development of an enabling environment aimed at increasing numbers of private operators providing services in rural areas.

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

The objectives of the survey are:

- To gain an understanding of the current situation (government capacity and the readiness and ability of the private sector to work with government)
- To develop the guidelines for achieving the enabling environment

The purpose of this Country Report is to have an effective participation of the rural-based small scale private sector in rural water supply service provision being enhanced through the production and dissemination of best practice guidelines.

1.3 Survey team

The survey was carried out by a team comprising of five people as follows:

- Group leader (Mr. Obadia Zerubabeli who is a Graduate Civil Engineer, RWE’s office)
- Group guide (Mr. Elias Nkongo, WAMMA member)
- Driver (Mr. Pius Ndaga from WaterAid)
- 2 enumerators (Mr. Samson Shaidi and Ms. Mwendeche Senyagwa, University students)

1.4 Study areas

The survey was carried out in the Dodoma Rural and Mpwapwa districts in Dodoma region.

In order to progress the Tanzania National Water Policy towards private sector participation in the rural water supply sub sector, the research will concentrate in Dodoma Region of Tanzania, and particularly in Dodoma rural and Mpwapwa districts. The research is done in Dodoma Regional districts and particularly in Dodoma rural and Mpwapwa districts because the first rural water supply scheme in Tanzania to be privately operated was Berege water supply scheme in Mpwapwa district and since then three more schemes are privately operated in the district. In Mpwapwa district there is a village where the operation of a scheme changed from being operated by a community water committee to a private operator and later to a community water committee again. Based on the Berege water scheme success story, which was highly publicized as a good alternative to a management of a rural water scheme, some 15 Dodoma rural district water schemes got attracted to the approach and are now privately operated. With further strengthening of private sector capabilities towards the sub sector operations, it is expected that more will be attracted towards the business.

The study areas are described in more detail in Section 2.5

1.5 Survey timing

The survey work was carried out over the period of 14 working days (8th July to 30th July 2004). This is in the dry season. During this period the most positive significance to the survey was ease of accessibility to remote areas, which accelerated accomplishment of the survey within the planned time frame.

1.6 Next steps

The survey forms part of an overall work programme. The next steps are to set up a multi-stakeholder working group.

The multi-stakeholder working group comprises of key stakeholder groups (i.e. Sector ministry representatives, sector professionals from higher learning institutions (universities) and private sector, sector associated NGOs and External Supporting agencies, representatives from the central ministries of Finance, Presidents Office - Planning and Privatization, and Presidents Office – Regional Administration and Local Government¹. The objectives of the multi-stakeholder working group are to meet and be briefed by the country teams on progress with the surveys during Phase 2. The group will draw out the lessons learned from the surveys and to plan the work to be done during Phase 3.

1.7 Structure of this report

The structure of the report consists of five chapters namely: The introduction, survey methodology, survey results, analysis and interpretation and observations and conclusions.

¹ The inclusion of the representation of the National Micro Finance Bank and of the Ministry responsible for Industries and Trade is being considered.

2 SURVEY METHODOLOGY

2.1 Introduction

The survey had three components as follows:

- Survey of demand for guidelines
- Assessment of government capacity to enable and regulate the private sector
- Capacity assessment of small and medium size enterprises and non-governmental organizations.

A stakeholders' workshop involving selected Dodoma based water sector stakeholders and private sector operators in the district was held in Dodoma as a fact searching workshop to assess the demand for guidelines among stakeholders. There after a survey questionnaire was designed and tested among the participants of stakeholders' workshop. Finally the tested questionnaire was split into two parts, one set of questions being targeted for the small scale private sector practitioners and another set for the local government authorities and NGOs in the area where the small scale private sector operations are dominant, that is in Dodoma Rural and Mpwapwa districts, in Dodoma region so that the survey results are as practical as possible. The reason for splitting the survey into groups was to control bias in other groups when filling the questionnaires.

The survey questionnaire is presented in Appendix A.

2.2 Capacity of private sector

To understand the capacity of the private sector three approaches were used:

2.2.1 Livelihoods analysis

It is an analysis which allows access (financial capital), human resources (human capital) and professional networks (social capital) to be fully understood in the water sector in the pilot study areas.

2.2.2 Sub-sector analysis

Is an analysis which diagrammatically presents a network of actors and enterprises that are linked to a common product or raw material and who;

- supply or procure raw material,
- transform raw material into finished products,
- distribute finished products to final consumers.

There are four concepts / ideas for sub sector analysis;

- vertical perspective
- competition, within the actors and beyond
- coordination, control / regulation
- leverage, making a small intervention for a big impact in small enterprises.

2.2.3 Supply chain mapping

Is the map which shows various sets of SMEs involved in rural water supply in the pilot study areas where it is felt that further analysis of their customers, suppliers and other linkages can bring about better understanding and possible benefits. The main actors in the supply chain map are: The community, community artisans, district pumps mechanic(s) and District Water Engineer.

2.3 Capacity of government

To understand the capacity of government the following approach was used:

- Appreciative inquiry.
- Questionnaires to district water engineers and WAMMA coordinators.
- Focus group discussions with village water and sanitation committees, village government and private operators.
- Review of the National Water Policy (2002 July), regulations, guidelines and water works ordinance of 1997.

2.4 Need for guidance

The following approach was taken in order to understand the need at different levels of government for guidance and the form that the guidance should take.

- Comparison between policy, regulatory vis a vis roles and responsibilities of government officers at District and Village/ community levels.

2.5 Study areas

The surveys were carried out in Dodoma Rural and Mpwapwa districts, in Dodoma region. These districts were chosen for the survey because the characteristics of each study area are relevant to the objectives of the survey.

Area 1. DODOMA RURAL DISTRICT

Dodoma Rural district has a population of 349,887 as per 2002 population census, distributed in eight divisions of Bahi, Chilonwa, Chipanga, Itiso, Makang'wa, Mundemu, Mvumi and Mwitikira. Major livelihoods are farming, livestock keeping and business enterprise both at large and small-scale levels. Also there are some formal and informal employees. Dominant tribe is Gogo despite the fact that there are different tribes found within the district. The district is concentric to Dodoma Urban district, whose capital; the Dodoma Municipality is the capital city of Tanzania. The headquarters of Dodoma Rural is also situated in the Dodoma Municipality. There are 132 villages within Dodoma rural district out of which 120 villages have water supply schemes with varying levels of operation.

Table one:
Distribution of water schemes/projects by the end of 2003,

<i>TYPE OF SCHEME/PROJECT</i>	<i>YEAR 2003</i>
Shallow wells	10
Boreholes	98
Gravity schemes	1
Local wells	12
Dams	2
Total population access clean water	328,307
Percentage	90
Water committee	113
Total water fund amount	48,352,648 TZS

Source: District water engineer July 2004.

Area 2: MPWAPWA DISTRICT

Mpwapwa district has a population of 254,500 as per 2002 population census, distributed in the three divisions of Mpwapwa, Kibakwe and Rudi. Major livelihoods are farming, livestock keeping and business enterprise both at large and small-scale levels. Also there are some formal and informal employees. Dominant tribe is Gogo despite the fact that there are different tribes found within the district. There are 84 villages within the district out of which 68 villages have water supply schemes with varying levels of operation.

Table two:
Distribution of water schemes/projects by the end of 2003,

<i>TYPE OF SCHEME/PROJECT</i>	<i>YEAR 2003</i>
Shallow wells	41
Boreholes	20
Gravity schemes	25
Water committee	62
Total water funds/Account	23,772,499 TZS
Total population access clean water	197,394
Percentage	70

Source: District water engineer July 2004

2.6 Organisation of the survey team

The team which assessed the capacity of private sector was organised to contain five people for the reasons that a small group was simple to organise and manage. The team was divided into two sub-groups containing two people each which visited two villages at the same time.

With this method there was an advantage because the survey work was easily carried out and finished within the specified time.

3 SURVEY RESULTS

3.1 Introduction

The survey results which are appended in Appendix B had been organised and structured as follows:

- A. Personal data
- B. Knowledge about PSP in Rural Water Supply
- C. Level of Awareness (Legal, Institutional, Financing, Technical and Capacity Building)
- D. Dissemination of information on guidelines and reforms
- E. Opinions and Concerns.

3.2 Capacity of private sector.

The surveys in Dodoma Rural and Mpwapwa districts resulted in 28 interviews with the following types of private sector operators: 2 local companies and 25 individual agents. These gave the following results as they are analysed in the KaR Study (Phase II) Questionnaire Analysis for Private Sector (See attachment in appendix B).

This report presents the results of a survey of small scale private sector participation in the rural water sector. The working environment of the private operator in operating the water scheme and service provision was studied. The capacity of the private sector in operating the water scheme and service provision was seen to depend on the following factors:

- knowledge of the private sector about Private Sector Policy,
- technical know how of the private sector operator on the his area of operation,
- technology used and age of the water scheme in question
- age of the engine where appropriate
- general need and frequency of maintenance and repairs,
- commitment of communities and other players' particularly the DWE to fulfill their roles and responsibilities in water scheme operations
- nature and extent of seasonal variations which determine the community water demand and consequent water sales.

▲ Personal Data

In the surveys conducted, 28 adult private operators were interviewed; only one of them was a female. The majority of these operators are self-employed in farming, livestock keeping and small businesses. Only Miganga village private operator has formal employment as a Secondary School teacher with 4 years of working experience.

The percentage of income generated from water related business is dependent on the economy of the relevant community. Most of them admitted that only less than 50% of their income is generated from water related business.

▲ Knowledge About PSP in Rural Water Supply

The private operators apart from their role as service providers do not play any other role in the delivery of water in the district. Some of them have attended community water supply related meetings on the sector which mostly were organised at village level. The meetings were organised either by village governments, water committees, WAMMA, WaterAid and or MAMADO.

Main issues discussed in the meetings were about sustainable quality service provision, management and maintenance of water facilities. Most of the private operators admitted to see no relationship between the issues discussed in those meetings and what they were actually engaged in presently, but some made clear that sustainable quality water service affects positively their occupation.

The main players in rural water supply sector in the district/community were observed to be, communities, village governments and water committees and the supporting agencies of District Water Department, WaterAid, WAMMA, Centro Mondialita Sviluppo Reciproco (C.M.S.R.) of Italy and Lay Volunteers Association of Italy, (L.V.I.A.).

**Table Three:-
Functions of the main stakeholders in the rural water supply sector in the surveyed areas**

PLAYER	FUNCTION(S)
<ul style="list-style-type: none"> • Communities 	<ul style="list-style-type: none"> • Owners/ customers of the water scheme • Participate in aspects of the scheme development •
<ul style="list-style-type: none"> • Village Government & Water Committee 	<ul style="list-style-type: none"> • Supervision of the water scheme • Issues and manage contracts to the private operators • Support the private operator to ensure better service provision
<ul style="list-style-type: none"> • LVIA, CMSR, World Vision, Belgian Survival Fund/IFAD and WaterAid 	<ul style="list-style-type: none"> • Financiers • Technical advise
<ul style="list-style-type: none"> • WAMMA 	<ul style="list-style-type: none"> • Community mobilization • Facilitate the articulation of demand
<ul style="list-style-type: none"> • DWE 	<ul style="list-style-type: none"> • Advice, maintenance and repair services provider, regulator and supervisor.

Major changes are expected in rural water supply sector in the near future. The involvement of the private sector which has now started will catalyse these changes by ensuring availability of enough funds in the village water account raised by the monthly loyalty fee paid by the private operator.

This will enable most communities to meet the maintenance and repair costs, and improve the chances of project expansion and engine replacements by the communities themselves.

▲ **Level of Awareness**

a. Legal

Rural based small scale private operators in the water sector are not licensed or registered and signing of contract following contract award is what they see to be registration. The activities performed are internally regulated by the village government and water committee by making regular follow-ups and the contractual terms.

b. Institutional

Contracts for work are obtained from the village government whereby all bidding procedures are conducted. District authorities handle all contract procedures according to procurement act and other functions they perform apart from their roles in the award of contracts are those of facilitation, supervision and advice, maintenance and repair services support and arbitration in cases of misunderstandings between the private operator and the beneficiary community. For the communities to cooperate better with the private sector the following have to be done:-

- Better service provision
- Transparency
- Understanding of beneficiary community needs.
- Communities' awareness through seminars and education about their roles and knowledge about PSP in the rural water supply.

Table Four:
Activities towards provision of community water facility

ACTIVITIES	DONE BY
• Fund raising	• Communities, Local Government Authorities, Central Government.
• Unskilled labour work	• Communities as community contribution towards capital investment.
• Drilling	• Drilling contractors
• Mobilisation of local resources, Planning for; supervision, operation and maintenance	• District Authorities and communities
• Procurement of materials and services	• DWE, WAMMA , Communities
• Scheme construction	• DWE, WAMMA, Communities

Management of the water facilities is done by the village government and water committee whereby they work hand in hand with the private operator. Both the beneficiary community and the private operator ensure that the engine is serviced regularly after every 250 working hours by Pump and Engine Mechanic (PEM) from the office of the District Water Engineer (DWE); any breakdown on the water scheme is reported to office of the District Water Engineer for supportive intervention.

Challenges that the communities have encountered in the management and maintenance of the water facilities are:-

- Staying without water supply service due to delays in maintenance and repair interventions
- Increase of water prices as a result of corresponding rises in water scheme running costs. These increases have normally taken the communities by surprise because normally they don't correspond to increases in their own incomes for enabling them to maintain their water needs without financial stress.

c. Financing

The private sector is paid from the water user fees as collected from the consumers. He/She takes the amount that remains after paying the monthly loyalty fee to the village administration and the operating costs which include schemes' running cost, maintenance and repairs. In case the private sector pre-finances the services or goods supplied in order to keep the water scheme running, the time for repayment depends on the banks withdrawal arrangements from the village water fund account.

Institutions that finance rural water projects in the districts are WaterAid, Belgian Survival Fund/IFAD, World Vision, Centro Mondialita Svillupo Reciproco (C.M.S.R.) of Italy, Lay Volunteers International Association of Italy and TASAF, however private operators are not aware of the financing mechanism of the schemes they operate. Though the communities do contribute a portion of capital cost towards the construction or rehabilitation of their water schemes when they get funding support, they have not yet devised a system of requiring the private operators to supplement such contributions.

d. Technical

- Familiar supply systems are Boreholes/Pump and Engine, Gravity Schemes and Shallow wells
- Some have informal training from Pump and Engine Maintenance to repair Pump and Engine systems though are not allowed to perform maintenance and repairs
- Some have been supplied service kits from Peter Machine Investment and Loshya Investment though at times some parts are sometimes not timely available
- Village authority is responsible for quality assurance of the services availed to their water scheme.
- Cleanliness of tank and water scheme surroundings is done for the maintenance of the provided water.

e. Capacity Building

- They have not participated in any training programmes on rural water supply management skills.
- Creation of an association will bring stronger bargaining power of private operators in the water sector
- Creation of a Savings and Credit Cooperative Association among the private operators will strengthen financial security and sustainability.
- They are prepared to stay in their present job in order to:-
 - Serve the communities
 - Raise their income
 - Maintain their dignity

▲ Dissemination Of Information On Guidelines And Reforms

- Communities are satisfied with services provided by locally based service providers
- Information on private sector activities be disseminated by:-
 - public meetings
 - media
 - leaflets
 - traditional drama

▲ Opinions and Concerns

- Private sector involvement is a good idea
- Monthly loyalty fee be fixed proportionally to the monthly collections, such that the seasonal collection variations are taken into consideration.
- Private operators create an association for their matters.
- Private operators create a savings and credit cooperative association for promoting their financial security and sustainability.
- Cooperation between service providers and beneficiaries should be promoted.
- The private operators should be given some technical basic knowledge with respect to the water supply scheme maintenance technology so that they can distinguish genuine and fake water scheme maintenance parts
- Private operators be encouraged to serve communities' interests.
- Metering systems for domestic points and in house connections be promoted so as to minimize water losses and consequent financial losses to the water schemes operators both private and public (community).

3.3 Capacity of government

The surveys in Dodoma Urban and Mpwapwa districts resulted in interviews with the District water engineers and District WAMMA coordinators, village water and sanitation committees, village government and private operator.

The following is what resulted from the interviews:

Table Five:-

Matrix for District Water Engineers' knowledge about PSP in Rural Water Supply,

District Water Engineer	Dodoma (R)	Mpwapwa
<ul style="list-style-type: none"> • Job schedule 	<ul style="list-style-type: none"> • Reporting to District Council Executive Director. 	<ul style="list-style-type: none"> • Reporting to District Council Executive Director.
<ul style="list-style-type: none"> • Work experience 	<ul style="list-style-type: none"> • 20 plus years 	<ul style="list-style-type: none"> • 8 years
<ul style="list-style-type: none"> • Role in provision of rural water facility 	<ul style="list-style-type: none"> • Regulatory, facilitation, coordination and arbitration 	<ul style="list-style-type: none"> • Regulatory, facilitation, coordination and arbitration.
<ul style="list-style-type: none"> • Effectiveness of the current arrangement for the delivery of water facility 	<ul style="list-style-type: none"> • Involvement and participation of different stakeholders provides more opportunities. • Steady community capacity building/mobilization helps much in project sustainability. 	<ul style="list-style-type: none"> • Involvement and participation of different stakeholders provides more opportunities. • Steady community capacity building/mobilization helps much in project sustainability.
<ul style="list-style-type: none"> • Main ingredients in fashioning policy on the involvement of small scale entrepreneurs in the rural water sector 	<ul style="list-style-type: none"> • Service regulation. • Community participation. • Promotion of Private sector participation. • Public sector regulation, facilitation and coordination. • Minimum service level. • Domestic water supplies. • Water for livestock. • Integration of water supply, sanitation and gender. • Establishment of an independent arbitration machinery in the district 	<ul style="list-style-type: none"> • Service regulation. • Community participation. • Promotion of Private sector participation. • Public sector regulation, facilitation and coordination. • Minimum service level. • Domestic water supply. • Water for livestock • Integration of water supply, sanitation and gender. • Establishment of an independent arbitration machinery in the district
<ul style="list-style-type: none"> • Time frame for implementation of the policy 	<ul style="list-style-type: none"> • Not more than five years 	<ul style="list-style-type: none"> • Not more than five years
<ul style="list-style-type: none"> • Meeting /seminars/workshop conducted on SSPSP 	<ul style="list-style-type: none"> • Through WAMMA something has been done at community level ranging from community problem identification, to management, monitoring and evaluation. However as SSPSP is new and specialized area hence for sustainability, specialists are needed to satisfactorily seize and educate and the involved parties. 	<ul style="list-style-type: none"> • Through WAMMA something has been done at community level ranging from community problem identification, to management, monitoring and evaluation. However as SSPSP is new and specialized area hence for sustainability, specialists are needed to satisfactorily seize and educate and the involved parties.

<ul style="list-style-type: none"> • Roles to play in SSPSP 	<ul style="list-style-type: none"> • Promotion, facilitation coordination, regulatory and participation in the development of independent arbitration machinery. 	<ul style="list-style-type: none"> • Promotion, facilitation coordination, regulatory and participation in the development of independent arbitration machinery.
<ul style="list-style-type: none"> • Views on what necessitate the idea of SSPSP 		<ul style="list-style-type: none"> • Minimise government monopoly on rural water supply services. • Sustainability of rural water projects. • Cost effective. • Trade liberalization /privatization move. • Poverty reduction through a wider range of involving more people in economic development activities.
<p>Level of awareness</p> <p>a. Legal</p> <ul style="list-style-type: none"> • Existing Legal frame work under which rural water sector operates 	<p>EWURA act no.11 of 2001.This act provides functions of an independent regulator at a National Level. Dependence of the communities on a distant based authority will discourage its use.</p>	<ul style="list-style-type: none"> • EWURA act no.11 of 2001.This act provides functions of an independent regulator at a National Level. Dependence of the communities on a distant based authority will discourage its use.
<ul style="list-style-type: none"> • Effectiveness of the existing legal frame work with respect to SSPS 	<p>Ensure water project sustainability by:</p> <ul style="list-style-type: none"> • Reducing theft. • Ensuring routine operation and maintenance. • Institutionalisation of ownership. • Adequate water supply. 	<p>Ensure water project sustainability by:</p> <p>Reducing theft.</p> <ul style="list-style-type: none"> • Ensuring routine operation and maintenance. • Institutionalisation of ownership. • Adequate water supply.
<ul style="list-style-type: none"> • Effectiveness of current water law in addressing the issue of extraction, usage and management of water resources in the country 	<p>The law is not well understood.</p>	<ul style="list-style-type: none"> • The law is not well understood.
<ul style="list-style-type: none"> • Should there be separate water laws for urban and rural water? 	<p>Yes, due to environmental diversity.</p>	<ul style="list-style-type: none"> • Yes.
<ul style="list-style-type: none"> • How can the implementation of water legislation be more effective? 	<ul style="list-style-type: none"> • Capacity building/training for empowerment to all stakeholders. • Community involvement. • Involvement of all stakeholders. • Decentralization of regulatory machinery to ward levels and establishment of a replica of EURA at district levels. 	<ul style="list-style-type: none"> • Capacity building/training for empowerment to all stakeholders. • Community involvement. • Involvement of all stakeholders. • Decentralization of regulatory machinery to ward levels and establishment of a replica of EURA at district levels.

<p>b) Institutional</p> <ul style="list-style-type: none"> • Which institution should establish interface with SSPS programme. 	<p>District council, because;</p> <ul style="list-style-type: none"> • It is responsible for socio-economic development and welfare of its people. • Close to the people through representation through community elected Councilors. • Socio-economic and climate diversity. • Nature of interface and its scope. • Policies, guidelines, by-laws, coordination, quality assurance, mandate on water law and quality assurance 	<p>Local government, (district councils), because;</p> <ul style="list-style-type: none"> • It is close to the community or rather community managed through community elected Councilors.
<p>Roles of the following bodies in the award and supervision of contracts:</p> <ul style="list-style-type: none"> • Ministry of Industry and Trade. • Ministry of Water and Livestock Development. • President's Office, Regional Administration and Local Government. • District Authorities /District Water Authorities/Ward development committee. • Community (Village/community water committee). 		<ul style="list-style-type: none"> • Promote creative • Industries to design and produce cheap and simple technology suitable to rural environment. • Lay down strategies to promote policy and link with other ministries. • Develop regulation to support the rural water supply policy. • Give support to its staff on specific technical issues. • Give support training to its staff to develop their capabilities in contract procedures and supervision. • Handle all contract procedures according to procurement act. • Work hand in hand with district/ward in the management of the contract implementation.
<p>c. Financial Role of government in financing rural water supply</p>		<ul style="list-style-type: none"> • Secure more financial assistance to support the set-up. • Rationalise water sector plan and other development plans.

<p>Strategies to be adopted in financing rural water;</p> <ul style="list-style-type: none"> • In the short term • In the long term 		<ul style="list-style-type: none"> • Promote formation of Savings and Credit Cooperative Association among Village water committees and Small Scale Private Operators in order to promote their financial independence among themselves. • Discuss with the National Microfinance Bank on the possibilities of usage of the District's total water fund as collateral for facilitating individual villages in the district to get credit facilities for the improvement of their water services.
<ul style="list-style-type: none"> • How should small-scale private sector finance rural water supply independently 		<ul style="list-style-type: none"> • Through the formation of Savings and Credit Cooperative Association among Small Scale Private Sector members in order to promote their financial independence among themselves in a long term. • Get the Small Scale Private Sector members trained in small business management so that they can improve their financial management skills.
<ul style="list-style-type: none"> • Financial difficulties envisaged with respect to the involvement of SSPS in rural water supply 		<ul style="list-style-type: none"> • They lack securities to access big loans from financial lending institutions. • They lack experience and heavy capital equipment for large scale water projects
<ul style="list-style-type: none"> • Strategies to overcome those difficulties 		<ul style="list-style-type: none"> • Get the Small Scale Private Sector members trained in small business management so that they can improve their financial management skills.
<p>Factors to guide the pricing of water in rural areas</p>		<ul style="list-style-type: none"> • Production cost at one particular time. • Age of the water scheme which influence the frequency of the scheme Operation and Maintenance and the costs arising there from. • Scheme's major parts replacement costs.

<p>d. Capacity building Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply?</p>		<p>This set-up is very new such that many people are not conversant with it. The capacity is practically weak and if we aim at provision and maintenance of rural water supply through the private sector then we are required to impart essential skills to the sector.</p>
<p>Existing mechanisms for the construction, installation and maintenance of water facilities.</p>		<ul style="list-style-type: none"> • Safeguard interests of the majority, but ensuring their obligations are maintained through facilitation of enacting of supportive by law. • Promotion of PSP for the construction, installation and operation and maintenance of water facilities in the district through campaigns and technical training support to the few existing private sector operators. Assurance of the quality and standards of the job done.
<p>Responsible officer for determining water quality at community level.</p>		<p>District Water Engineer; if the service falls as a result of PSP, the Government will be tasked by the communities. So the District Water Engineer has to ensure that the privatization of services does not mean falling service standards.</p>
<ul style="list-style-type: none"> • Small-scale private sector operator should acquire the skills relevant for the participation in the rural water sector through 		<ul style="list-style-type: none"> • Supportive basic technical training, seminars, workshops, knowledge transfer among private sector participants through exchange visits.

<ul style="list-style-type: none"> • Factors to guide the selection of small-scale private sector operator 		<ul style="list-style-type: none"> • Understanding of basic policy issues, • Basic knowledge in Water Technology. • Good track record, • Financial capability
<ul style="list-style-type: none"> • Who should be responsible for the training, certification and licensing of small-scale private sector operator? 		<ul style="list-style-type: none"> • Ministry responsible for water should facilitate provision of supportive training to the small-scale private sector operator and consequent certification through the respective district councils. That role of capacity building normally lies with the respective sectoral ministry. NCC, National Construction Council under the Ministry responsible for Works has continuously done so for the Civil and Building Contractors. The licensing be left to the respective district councils.
<ul style="list-style-type: none"> • Who should be in charge of development and distribution of training materials? 		<ul style="list-style-type: none"> • District Water Engineer on behalf of the respective district council.
<ul style="list-style-type: none"> • Measures to ensure the quality of work 		<ul style="list-style-type: none"> • There should be measurable implementation standards to be met by the private sector operators to measure their provision of quality work.
<ul style="list-style-type: none"> • Information on small-scale private sector should be disseminated through 		<ul style="list-style-type: none"> • District council forums • Local Radio, video • Local news papers • Periodic publications to be developed by the small scale private sector organization, detailing their innovation and success in the business.
<p>Opinions and comments</p> <ul style="list-style-type: none"> • Ideas on small-scale private sector participation in the rural water sector. 		<ul style="list-style-type: none"> • They are close to community • They increase the number of actors in the water management arena. • They are the alternative to other commonly available and used options, the government and the communities. • It is a recruitment window for the technicians who are being trained but they can not be absorbed by the government at any level. • It is hoped that they will competitively improve the service level of the schemes and the geographical service coverage. • They are likely to be sustainable.

❖ **Matrix for Village water committee, private operator**

3.4 Need for guidance

The surveys in Dodoma Rural and Mpwapwa districts resulted in interviews with the village water committees and the District Water Engineers in those districts. The results from the interviews are as follows: -

Table 6
Comparison of Institutional framework, legal and regulatory framework, and current situation at district and village level.

Institutional framework	Legal and regulatory framework	Current situation District and Village levels
<p>Water supply policy: -</p> <ul style="list-style-type: none"> The government should disseminate the reader friendly versions of the rural water policy to enable it to reach as many water users as possible. <p>Private Sector Participation: -</p> <ul style="list-style-type: none"> The government should provide guidance to the promotion and engagement of the private sector. 	<p>EWURA act policy no 11. of 2001</p>	<ul style="list-style-type: none"> The interpretation of the National Water Policy has normally been made to the community through the District Water Department personnel, the district WAMMA teams and water sector stakeholders. The printed reader friendly versions have not been availed to most communities. 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.
<p>Local government policy:</p> <ul style="list-style-type: none"> The government policy advocates capacity building towards decentralization by devolution. The government should start enabling the community towards it. 		<ul style="list-style-type: none"> Some communities are aware of their roles as stipulated through the Local government policy however they still feel that the dissemination and orientation of the communities towards it is still deficient. The communities need to be oriented on how.
<p>Water tariff policy: -</p> <ul style="list-style-type: none"> The communities still consider the government as a spokesperson for the water business, so in case of involvement of the private sector in facilitating the water services there should be a process of disseminating the knowledge of what governs the water tariff structure. 		<ul style="list-style-type: none"> The majority of the communities do not relate the community water schemes' water tariff with the increasing costs of running those schemes. Wherever there is change in prices of major water scheme input like diesel necessitating the change in water tariff that is not easily agreed by the consumers.

4 ANALYSIS AND INTERPRETATION

4.1 Introduction

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

The analysis and interpretation is presented here in the form of:

For private sector operators:

- A sub-sector analysis
- A livelihoods analysis
- A supply chain map(s) for the following chains and text.

For government:

- An assessment of government capacity to facilitate and regulate private sector operators at local level
- An assessment of the needs of government (and other actors) for guidelines to help them facilitate and regulate the private sector.

4.2 Sub-sector analysis

The survey results presented in Section 3 indicate that the rural water supply sector is organised in the manner shown in Figure 1 below.

The details of the sub-sector map are as follows:

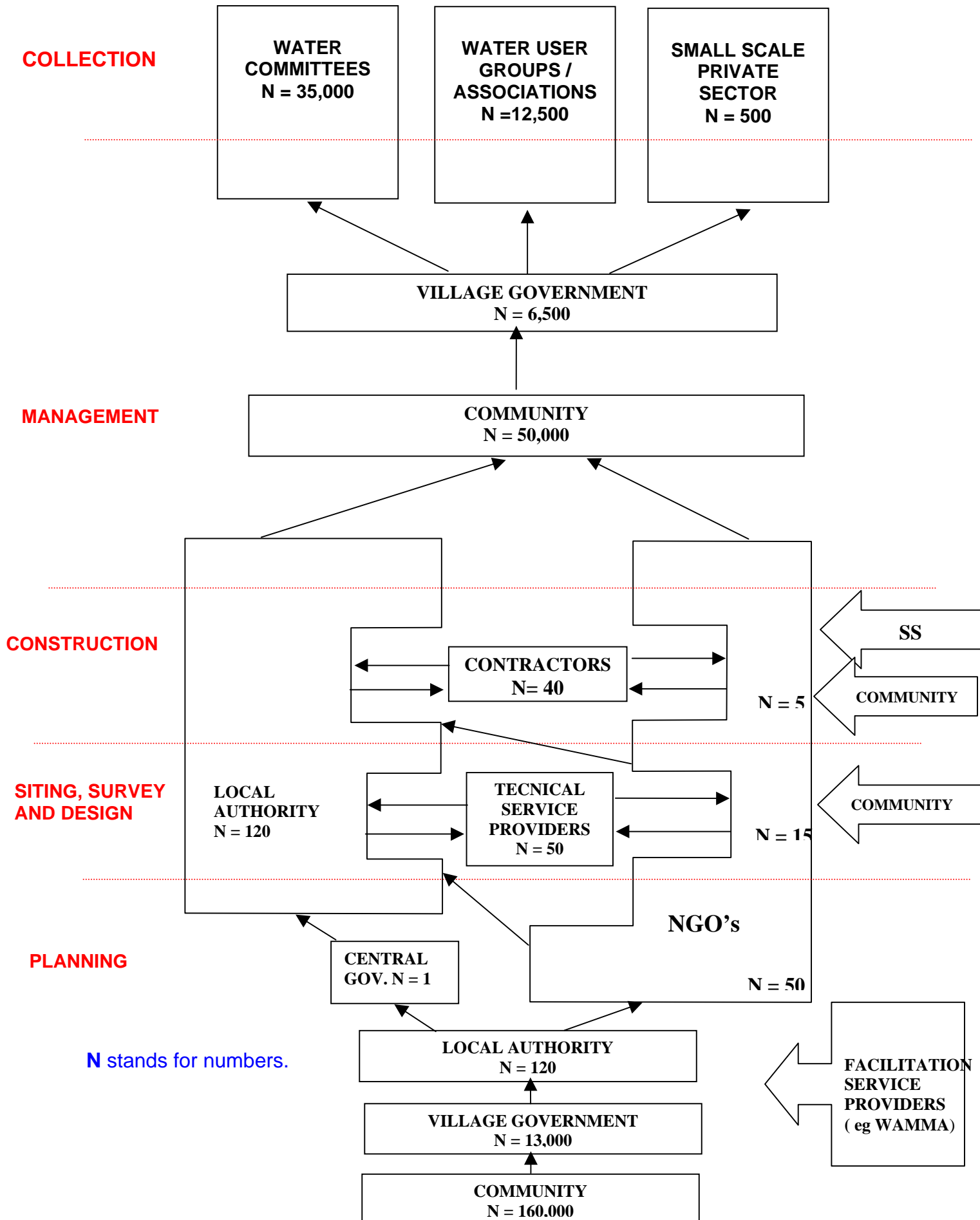
Planning

Planning starts at the community level with the identification of community water needs. In this process the communities are supported by Facilitation Service Providers (FSP) such as WAMMA teams or other NGOs, who work directly with the communities. Communities will then work with their village government for the facilitation of their needs to the local authority. There after the respective Local Authority can forward the community needs report(s) to district based NGOs and or central government for consideration and support however in future it is expected that once the various community water needs reports have been received by the Local Government Authority in a locality they will be prioritised and presented to a local stakeholders meeting for *local* consideration and funding before forwarding to the central government consideration and funding all whatever can not be locally supported. The local authority based NGOs and or the technicians at the local authority level will improve and prioritise the community initiated plans before forwarding them.

Once the planning is complete (and financing is secured), then **site identification**, **surveying** and **design** can start followed by **construction**. The Local authority can engage the technical Service Provider (TSP) for the supporting the process in the design and later the Contractor for the construction work. NGOs may continue to support the processes at all these levels, through provision of technical input to the process through the local authority, technical service provider and contractor, and monitoring of the process. In the process of siting, surveys and designs, the communities will work hand in hand with the technical service providers by providing input which might be found necessary for the designs. During construction a similar cooperation between the communities and the contractors is replicated, however in this stage, community level small scale service providers like aggregate crushers artisans, etc are also involved. Here while the contractors may do large works, the small scale service providers support the construction process through provision of supportive inputs to the process with aggregate and other construction material(s) and with labour and skills to enable the process positively.

Once construction has been completed, the water points are handed over to the communities to **manage** and maintain. The village government (with input from others) decides what management system should be adopted for community water scheme.

SUB SECTOR ANALYSIS OF RURAL WATER SUPPLY IN TANZANIA, DODOMA REGION CASE, Figure 1.



Several options are available. The most common form is a water committee as a subset of the village government. Other options include water user groups who are not incorporated into the village government, or small scale private operators (small scale service providers) who often report to a committee linked to the village government.

Depending on the chosen option for the management of the community water scheme, the lead actors (the village government and the village water committee or the water user group or the small scale private operator) have the responsibility for day to day management of the community water scheme and consequent operation, maintenance and repair. Where maintenance and repair falls beyond the ability of the small scale private operator and the village government, the local authority’s technicians and or small scale artisans, NGOs or others chip in to rescue the situation. Water collection points for water delivery are managed by water scheme operator who has the responsibility of collecting water charges from who ever collects water before the responsible households take over task of water transport and storage in their homestead. In general the security of the water scheme is looked after by the whole community and the water scheme operator reinforces that security through provision of secondary guards to the system installations.

In summary the sub sector can be summarized in the **Mapping Matrix** below and that enables the gauging of who is involved and in what process, although the involvement may be minimal, and not necessarily be included on the sub sector map.

Mapping Matrix:

Figure 2, Mapping matrix of who is involved and in what process.

MAPPING MATRIX	PARTICIPANTS							
	Central Gov.	Local Gov.	TSPs	Contractors	NGOs	FSPs	Village Gov.	Community SS Private Sector
FUNCTIONS								
Project Planning	Light shading							
Siting, Survey and Design	Indicates minimal involvement							
Construction	and vice versa							
Management								
Collection and Usage								
Policies and Regulation								

Analysis of sub sector problems: -

Below is a pyramid of problems facing the private sector operations, as highlighted by private sector operators and spare parts dealers in Dodoma Region.

Table 6;

Analysis of Sub-Sector Problems

Leadership	Spares	Contracts	Policies	Funding / Capital	Technical Skill	Poor State of repair
Village leaders not committed	Lack of spares and equipment for maintenance	Improper MOUs between stakeholders	Lack of knowledge of private sector involvement	High cost of initial capital at start of project	Lack of technical skills	Poor status or schemes which need rehabilitation
	Availability of spares – quality, price and quantity	Village government. and water committees assume roles outside the contract in project management	Communities unaware of policies on private sector involvement	Low capital of private sector involved	Lack of knowledge of private sector involvement	
	No control of spare part standards	Lack of transparency in contracts	Communities unaware of policies on private sector involvement	Low capital and lack of places to get credit		
		Confusion of responsibilities between stakeholders	Confusion between private sector and informal sector	Low community income to fund operation and maintenance		
			No guidelines on private sector involvement			

**Table 7;
Constraints, Opportunities and Interventions matrix in Dodoma Region, Tanzania**

Category	Constraints/ Opportunities	Proposed Interventions
Technology Development	<ul style="list-style-type: none"> • Low technical skills in private sector and users • Little standardization • Lack of demand responsive training • No thought for existing supply chains • <i>Water Resource Training Institute is available</i> 	<ul style="list-style-type: none"> • MoWLD and WRTI facilitate for better courses on demand responsive training on SSPS in RWS (especially pumps) • Get facts on existing supply chains for spares • Advocate using similar ways in other areas
Business Skills Development	<ul style="list-style-type: none"> • Poor contracts • Spare part dealers lacks knowledge and information on parts • <i>Vocational Education Training Association has cheap courses available</i> 	<ul style="list-style-type: none"> • Provide draft templates for contracts • Create business associations for SSPSs in RWS (TCCIA) • These can then work with VETA for better business courses
Policy Environment	<ul style="list-style-type: none"> • Confusion on role and responsibilities of private sector • Low involvement of rural and private sector in policy making • No revision of policy imminent • <i>Various forums already influence central government on RWS</i> • <i>Decentralisation is making an impact at the village level.</i> • <i>High profile awareness raising of PS in RWS is occurring</i> 	<ul style="list-style-type: none"> • SSPS forum to be informed and to inform policy decisions • Reader friendly summary and guidelines leaflet for PS in RWS • Make more use of existing forums to emphasis PS role in RWS
Finance	<ul style="list-style-type: none"> • Low capital in private sector • Finance from government is same regardless of availability of water • <i>Micro Finance Institutions, SACCOS, Banks and business associations are already there, they need to strengthened.</i> 	<ul style="list-style-type: none"> • Promotion of new finance products in the community through existing or new organisations (SACCOS etc.) • Performance related budgeting

Operating Environment / Infrastructure	<ul style="list-style-type: none"> • Poor state of repair • Lack of commitment to private sector from village leadership • Scattered infrastructure and limited service centres • <i>Ongoing repair, Rehabilitation and building program</i> • <i>Communities prepared to look inward for sustainable RWS systems</i> 	<ul style="list-style-type: none"> • Inventory of existing RWS and state of repair • This to be fed into district strategic planning cycle. • Establishment of more service centres by local councils within the district
Raw Materials and Inputs	<ul style="list-style-type: none"> • Poor quality and quantity of spare parts • Fake parts cause confusion to buyers • <i>Local manufacture and assembly of hand pumps and parts</i> 	<ul style="list-style-type: none"> • Promote good quality parts and pumps through introduction of standards • Use business associations and PS forums to promote the need for quality parts • Promote the need for quality parts and existing and new training courses used by PS
Market Development	<ul style="list-style-type: none"> • Limited market for spares • Cheapest spares have a highest demand. • <i>Free Market</i> 	<ul style="list-style-type: none"> • Summary leaflet and guidelines to include possibilities of SSPS in RWS along with other options • Market promotion of water pumps into the market

4.3 Livelihoods of private sector operators

The survey results presented in Section 3 indicate that the livelihoods of private sector operators have the following livelihood characteristics; Of the 28 private sector operators who were interviewed, 24 (85.7%) claimed to get less than 50% of their income generated from water related businesses while 4 of them, (14.3%) claimed to get more than 50% of their income from water related businesses. Without ruling out the possibility of poor record keeping due to deficient book keeping knowledge, these results indicate that most private sector operators do not solely depend on water scheme operation business but that they have other income generating activities such as farming, livestock keeping and business enterprises ranging from small to medium.

The following were found to be the Private sector operators' main roles and responsibilities in their areas of operation: -

- Setting of water tariff in cooperation with community water committee.
- Collection of water revenue through water sales.
- Provision of light maintenance and repair services to the water scheme components.
- Payment of monthly loyalty fee to the village government; the fee is deposited in the village water account in accordance to the standing agreement between the village government and the operator.
- Meeting the expenses for the running of the community water scheme.
- Keeping the community water scheme well informed of all water scheme operations and management issues.
- Sanitary keeping of all water scheme surroundings.

These are the commonest roles and responsibilities; they can be varied from one scheme to another.

The survey further revealed that they have the following:

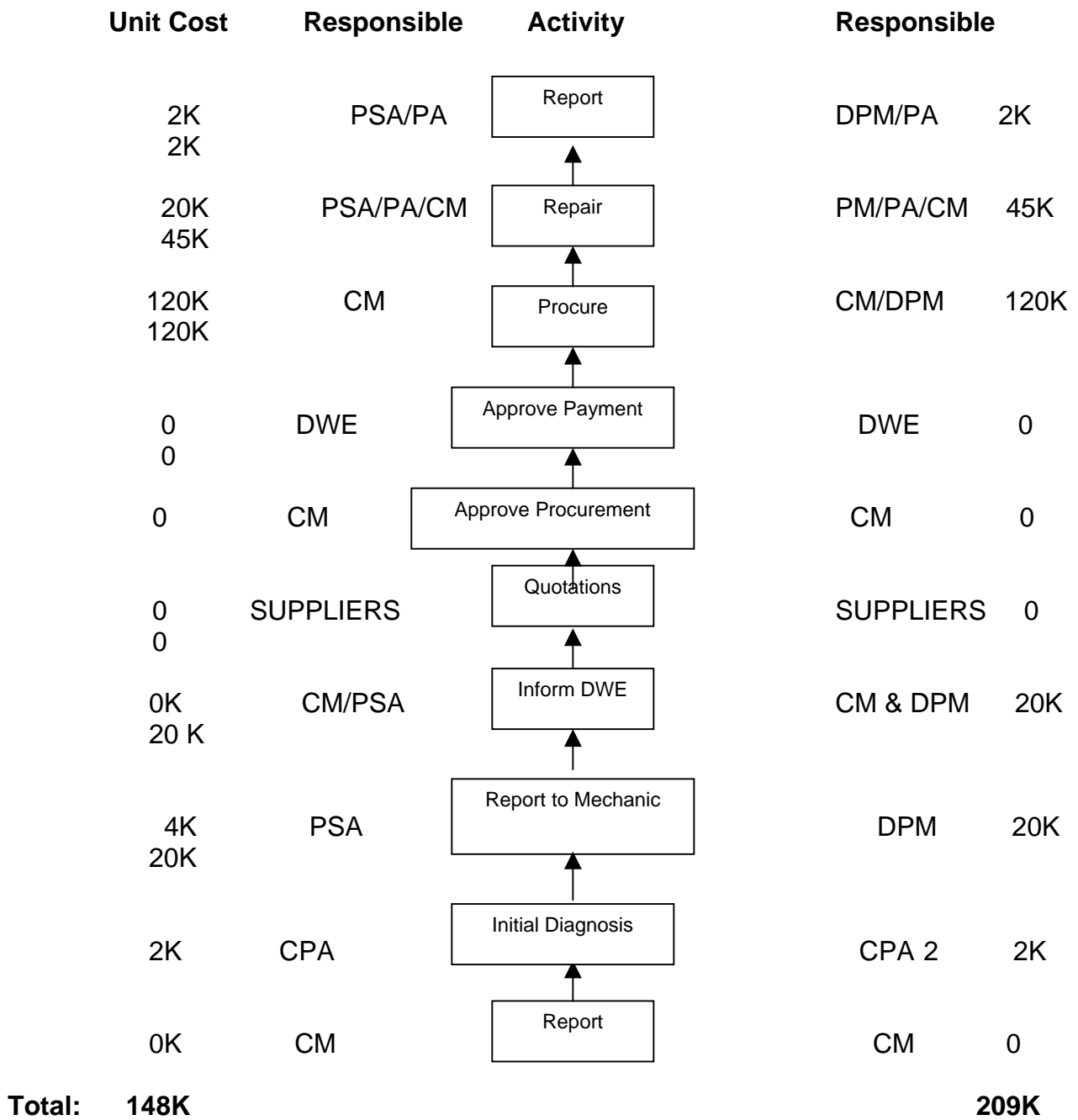
- Physical capital, this includes materials for maintenance and repair. The equipment available with the private operators is generally short of the minimum necessary.
- Social capital, this includes professional network and human resources. There is always lack of technical skills and knowledge.
- Financial capital, this involves access to finance. The private operator requires to be highly financially prepared before undertaking the water schemes operation business. Limited capital to opportunities for credit facilities to the small scale private sector deters most enthusiastic private sector participants from undertaking this business.
- Natural capital, there is sufficient land for agricultural activities and livestock keeping but under-utilised due financial constraints. More over agricultural land can not be considered as collateral in case of need for a loan from any banking institution.

4.4 Supply chain map

In the supply chain illustrated by **Figure 3**, the supply chain map undergoes bottom-up process. When there is a breakdown, the community will realize the shortage of water supply in their areas and will report the problem to the Community Pump Attendant (CPA) for initial diagnosis who after diagnosis will report the case to District Pump Mechanic (DPM) for further diagnosis and factual reporting to the District Water Engineer (DWE). District Pump Mechanic will later on assist the respective community to get 2 or 3 quotations and thereafter the community approves procurement and authorizes withdrawal of funds. The DWE countersigns the withdrawal of funds and the DPM buys spares, and there after fixes the defective engine/pump while the community is overseeing. On completion of the task the District Pump Mechanic, DPM reports in the water supply scheme logbook indicating who has repaired the machine and the specificity of his repair.

In those supply chain maps, the comparison of the costs involved in carrying out the repairs using the Private Sector Artisan (on the left) and with the District Pump Mechanic (on the right) reveals that the Private Sector Artisan (Private Sector Model) is cheaper than the District Pump Mechanic (Public Sector Model). This is primarily due to the rigidity on the public service per diem rates of the government employed mechanic rather than the intensity of work as opposed to the private sector mechanic who sets his/ her rates on the intensity of work regardless of the spent time on the job. The difference between these two systems is likely to increase when demand from the public is raised towards involvement of private sector thus attracting more private sector participants into the provision of repair services, hence reducing their charges as a result of competition.

Figure 3: Supply Chain Map of Motorized Pump Spares



Abbreviations:

CM=Community
 CPA=Community Pump Attendant
 K stands for '000 Shs.

DWE=District Water Engineer
 PSA=Private Sector Artisan
 DPM=District Pump Mechanic

The following factors are key to the supply chain:

- The time taken when the machine breaks until when it is repaired will very much depend on:
- The actors' efficiency in the supply chain
- Availability of funds in the community water bank account.
- Availability of spare parts in the market close to the respective community water supply.
- Timely availability of funds withdrawal facilities, say signatories from both the Community Water Supply management and or the District Water Engineer's Office.

The role of the private sector in the supply chain is to facilitate effective repair through steady follow up of timely after repair maintenance so that frequent need of costly repairs is not taken as due to poor workmanship or and non genuine spare parts from the private sector supplier. At times the private sector operator might inform the DWE directly about the machine need for service or even breakdown without first reporting to the District Pump Mechanic, DPM.

For strengthening their capabilities, the private operators should;

- be trained in order to acquire technical skills and knowledge in pump and engine operation and maintenance.
- facilitated with conducive environment for participation so that there is no ill feelings between the community or and the local authorities and the private operators.
- facilitated with enforcement of genuine supply of spare parts. That will promote the sustainability of the operating schemes and that will consequently promote the supply lines.

4.5 Capacity of government

The current role of government at different levels vis a vis facilitation and regulation of the private sector is as follows:

1. Central government (Ministry responsible for water)

- Develop policies
- Build capacity of local councils
- Monitor the implementation
- Regulator and facilitator

2. Local government (District councils)

- Develop and own district plans
- Regulator and facilitator at district level
- Monitor the implementation
- Create conducive environment for the private sector to operate and support private sector including NGOs to implement and sustain the district water development plans.

3. Community (Water user entities)

- Planning and prioritize their development plans
- Own and manage projects

Government officers operate under the following legislation:

1. Economic regulation

The purpose of this legislation is to promote economic development through effective and financially viable water services institutions, adequate and sustainable investment in infrastructure, the appropriate pricing of water and wastewater services and efficient use of water.

2. Social regulation

The purpose of this legislation is to ensure the provision of basic services especially the extension of services to the poor, to ensure affordability of basic services and to protect consumers with respect to quality of services and health considerations.

3. Environmental regulation

To promote the environment sustainability through appropriate management of water sources and the promotion of water conservation.

4. Sustainability regulation

Promote and ensure sustainable construction and management of rural water projects by identifying roles and responsibilities of different water stakeholders.

4.6 Need for guidelines

The needs for guidelines cover three main areas namely Legal, Financial and Institutional.

- **Legal**

An effective and appropriate legal framework is necessary if all stakeholders are required to recognize similar objectives and procedures in rural water supply. Currently there is no water law that addresses itself to the issue of the promotion process in enabling the local private sector to confidently, technically and sustainably participate in the rural water development and management issues.

- **Financial**

The financial resources are always scarce. In this regard there is a high initial capital demand for the private operator to engage himself in the rural water sector. Primarily the able town based private sector lacks community touch, thus only rural based private sector participants can be involved in the rural water sector sustainably. So the guidelines should be development of rural water supply private sector that can provide cash loans to enthusiastic private sector participants in exchange of rural based bonds like agricultural and or livestock farms. This fund can be developed through fund raising locally and internationally and economical use of bank deposited community water funds.

- **Institutional**

Local Government is an institution that works close to the community. Since the responsibility of Local Government (District Council) is to improve socio and economic wellbeing of its people, there is a need to develop a law/by-laws and guidelines to promote sustainable coordination and implementation of national policies in the local government area and to supervise quality service provision for sustainable development of water services to its people. These by laws/by laws and guidelines should be locally applicable to the community and the private sector operators in the Local Governments.

5 OBSERVATIONS AND CONCLUSIONS

5.1 Introduction

Observations and conclusions are made here under the following headings:

- Legal framework
- Institutional framework
- Financial framework.

5.2 Legal framework

The observations that arise from the surveys reported above reveal that the small scale private operators in the water sector are neither licensed nor registered. In determining the level of awareness, out of 28 interviewed small scale private operators 27 (96.4%) claimed not to have been registered and 1 (3.6%) claimed to have been registered. It was also observed that the grounds under which the activities can be regulated and by whom and ways of getting into contract depends on effective mechanism for registration, licensing and regulation.

The most important objective of this project apart from gaining understanding of the current situation between the government and the private sector it is to develop clear legal framework to enable and monitor the small scale rural water sector private operations. We were particularly surprised to find that though there is sectoral will in the policy in favour of promotion of private sector towards the implementation of the national water policy; there is still no legal framework in place towards fulfillment of the sectoral intention, and thus there is no legal framework in place towards sustainable legal guidance of the few emerging private sector institutions.

Bearing in mind the objectives and needs of the multistakeholder working group, private sector, government at national level and local level we conclude that the government at the national level should develop workable legal framework and guidelines for the guidance and monitoring of small scale private sector operations in the rural water sector.

5.3 Institutional framework

Local Government is an institution that works close to the community. Since the responsibility of Local Government (District Council) is to improve socio and economic well-being of its people, it is also responsible for ensuring community participation, ownership and sustainability of all community interventions. Here the small scale private sector participants are part of the focused community.

The most important objective of this project is to create environment that will strengthen the community participation at all levels including the small scale private sector towards sustainable development and management of community water services. On this aspect we are particularly surprised to find that regardless of that positive intention by the local authorities to date; there have been no institution established within the sectoral departments to groom and monitor positive elements emerging from the small scale participation in the rural water sector.

Bearing in mind the objectives and the needs of the multi-stakeholder working group, private sector, government at national level and local level, it is hereby concluded that there is need to create a small scale private sector monitoring unit within the district water offices for guiding (where necessary) and monitoring the emerging positive trend of the small scale private sector involvement in the rural water supply services.

5.4 Financial framework

The observations that arise from the surveys reported above reveal that the small scale private sector participants in the districts are not aware of the financing sources and process of the rural water projects in their respective districts. Also it was observed that they are practically blind on how they could secure capital for enabling their expansion and or rehabilitation of their water schemes.

The most important objective of this project is to find an equitable way on how best the small scale private participants could be facilitated to secure resources so as to enable their operations sustainably. We were particularly surprised to find that regardless of the local authorities' appreciation that the small scale private sector was sustaining rural water supply coverage in the districts, there were no purposeful efforts to support this sector through developing a financial institution for enabling their operations.

Bearing in mind the objectives and needs of the multi-stakeholder working group, private sector, government at national level and local level, we conclude that the government should develop a small scale private sector financing institution for sustaining rural water supply through the small scale participants. There should be a mechanism for attracting private sector participants towards payment of a part of capital cash contribution towards the implementation and or rehabilitation and expansion of the community water schemes. That concept will create long term bondage of the private sector participant to the water scheme in question.

5.5 Next steps

The next steps in the project process are: -

- Finalization of the synthesis report.
- Convening the multi-stakeholder working group for deliberation on the synthesis report
- Formation of a small working group for development of documentation towards, country-based and generic guidelines to promote participation and regulation of private sector operators.
- Operationalization of the developed country-based and generic guidelines.

APPENDIX A
Survey questionnaires

KaR STUDY (phase II)

Questionnaire Model For Tanzania.

Private Sector

A. *Personal data*

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

7. b How much (% ge wise) of your income is generated from water related business.

B. *Knowledge about PSP in Rural Water Supply*

8. Do you play any role in the delivery of water in the district? Yes No.
9. If yes, what role do you play?
10. Have you attended any meeting on the rural water sector? Yes No.
11. Who were the organisers and/or the sponsors? **And at what level?**
12. What were some of the main issues discussed?
13. What is the relationship between issues discussed and your occupation?
14. What role(s) are you likely to assume which are different from current your role(s) in the delivery of rural water supply?
13. Who are the main players in rural water supply in your district/community?
14. What are the functions carried out by each player?
15. Do you foresee any major changes in rural water delivery in the near future?
Yes No. Give reasons.

C. *Level of Awareness*

a. Legal

16. Have you registered your organisation? Yes, No
17. If yes, where
18. Are your activities regulated? Yes No If yes, by whom and how?
19. What are the mechanisms for regulation?

19 b. What problems have you had?

b. Institutional

20. Where do you normally obtain contracts for work?
21. What role does the District Assembly DA, (Full Council) play in the award of contract?
22. Apart from the award of contracts, are there other functions they carry out in the overall water delivery? Yes No
23. If yes, what are the functions
24. Do you interact with any recognised bodies at the community level
Yes, No,
25. If yes, who are they and what functions do they perform?

What will help the communities to cooperate with you better/to see you as a development partner?

26. Are you aware of any activities undertaken in the communities before the water facility is finally provided? Yes, No.
27. If yes, what are some of these activities who undertakes them?
28. How are these water facilities in the communities managed and maintained?

29. Have the communities encountered challenges in the management and maintenance of these facilities? Yes No
30. If yes, what were some of these challenges and how were they addressed?
31. To what extent were you personally involved in meeting these challenges?

c. Financing

32. Who pays you for services rendered/goods supplied?
33. Are your rates/fees determined by anybody? Yes, No.
34. If yes, do you find this acceptable? Give reasons for your answer.
How are the vulnerable taken care of?
35. Do you pre finance your services rendered/goods supplied? Yes No
36. If yes, what is the minimum and maximum period for repayment?
37. Have you ever faced any challenges in prefinancing your activities? Yes, No
If yes, what were these challenges and how did you overcome them?
38. How long does it take you to be paid after providing/supplying services or goods?
39. Which institutions finance rural water projects in your district?
40. What are the financing arrangements?
- Government/DA
 - Donor
 - Communities
41. What is the extent of communities' financial obligations in rural water projects?
42. How do communities raise their funds to meet these obligations?
43. In your opinion, will the involvement of the private sector in rural water project enhance efficiency?

d. Technical

44. What water supply systems are you familiar with?
45. Have you been trained to repair any of these? Yes No
46. If yes, which ones?
Are you confident with the technical knowledge you have on the
47. Have you supplied parts of any of the systems you are familiar with? Yes No
48. If yes, which spare parts?
49. Where did you obtain these parts?
50. Have you encountered any challenges in the acquisition of these materials? Yes No.
If yes, what are these challenges?
51. Have you repaired any of the water systems you are familiar with? Yes No
52. If yes, which system(s)?
53. How did you acquire your knowledge on the use/construction/repairs/maintenance of these water facilities?
54. Have you encountered any technical challenges in the supply of goods and services/maintenance of water facilities? Yes. No. .
55. If yes, what are some of these challenges and how did you overcome them?
56. Who is responsible for quality assurance of your work in the community?
57. How is the quality of water provided ascertained and maintained?

e. Capacity building

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

Yes No If Yes,

59. Who organised the training programme and what were the key issues discussed?

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

61. How could various small-scale private sector operators obtain stronger bargaining power in water sector? **TEAMING FOR A CLUB OR ASSOCIATION OF SOME KIND.**

62. Is there an Association, (**TCCIA type or a type of it**) of small-scale operators in your district?

Yes No , **Are you officially registered, with membership registration documentation?**

63. If yes, what is your membership strength?

64. Do you have regular meeting and programmes for your members?

65. What are some of the topics you discuss during your meetings?

66. To what extent can you handle all the jobs with respect to water supply? (Construction, installation and maintenance, Operation, Training, Capacity Building).

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

What attracts you to the present job?

D. Dissemination of information on guidelines and reforms

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

Yes No

69. How should information on private sector activities be disseminated? **Meetings, Information manuals,.....?**

E. Opinions and Concerns

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

Government

A. General information

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

B. Knowledge about PSP in Rural Water Supply

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

C. Level of Awareness

a. Legal

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

b. Institutional

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

a. Ministry of Industries and Trade

b. Ministry of Water and Livestock Development

c. President's Office, Regional Administration and Local Government

d. District Authorities/District Water Council/ Ward Development Committee

e. Community (Village/Community Water committee)

c. Financial

23. What is the role of government in financing rural water supply?
24. What strategies should be adopted in financing rural water
a. in the short term
b. in the long term
25. How should small-scale private sector operator finance rural water supply projects independently?
26. Do you envisage any financial difficulties with respect to the involvement of SSPSP in rural water supply? Yes No

27. If yes, what are the difficulties?
28. How can such difficulties be overcome?
29. What factors should guide the pricing of water in the rural areas?

Capacity Building

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

D. Dissemination of information on guidelines and reforms

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

E. Opinions and comments

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

Development Partners (Donors and NGOs)

A. General information

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

-In which specific area

B. Knowledge about PSP in Rural Water Supply

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

C. Level of awareness

a. Institutional

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

c. Financial

18. What is the financing mechanism for rural water projects supported by your organisation?
What proposals do you have for facilitation of rural water supply project financing mechanism?
19. Are you able to meet your project objectives within the time frame?
20. Are you aware of any challenges in the financing mechanism of rural water projects?
Yes No
21. If yes, what are these challenges and what measures have been instituted to meet these challenges?
22. What role do you expect the government and the communities to play in financing rural water delivery?
23. What is your organisation's position on full cost recovery of rural water supply?

c. Capacity building

24. Does the private sector possess the relevant skills and techniques to manage all aspects of the provision and maintenance of rural water supply? Yes No . Give reasons.

What is your proposal for improvement of the situation?

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

D. Dissemination of information

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

E. Opinions and comments

34. What ideas do you have on small-scale private sector participation in the rural water sector?
In what ways is your organisation facilitating SSPS influence in your area.
In what ways, do you think SSPS influence the community welfare in your area.

APPENDIX B
Survey data collected

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q1	Q2	Q3A	Q3B	Q4	Q5A	Q5B	Q6	Q7	Q8A
Mnase	Agent		1	Peasant		1			1
Tinai	Agent		1	Peasant		1			1
Sasajila	Agent		1	Peasant		1			1
Mvumi mission	Mkasupa Inv.		1	Peasant		1			1
Mgunga	Agent		1	Peasant		1			1
Ibugule	Agent		1	Peasant		1			1
Chifukulo	Agent		1	Peasant		1			1
Haneti	Mark Constr. Company		1	Peasant		1			1
Miganga	Agent		1	Teacher			2 DCT	4 yrs	1
Solowu	Agent		1	Peasant		1			1
Nhinhi	Agent		1	Peasant		1			1
Izava	Agent		1	Peasant		1			1
Gwandi	Agent		1	Peasant		1			1
Chenene	Village Govt.		1	2					
Kisima cha ndege	Agent		1	Peasant		1			1
Mpwayungu	Agent		1	Peasant		1			1
Zajilwa	Agent		1	Peasant		1			1
Kwahemu	Agent		1	Peasant		1			1
Mtitaa	Agent		1	Peasant		1			1
Huzi	Agent		1	Peasant		1			1
Manyemba	Agent		1	Peasant		1			1
Wiliko	Agent		1	Business		1			1
Mlebe	Agent		1	Peasant		1			1
Segala Bulu	Agent		1	Peasant		1			1
Ilewelo	Agent		1	Peasant		1			1
Mwitikira	Agent			2 Business		1			1
Mgunga (Manyeche)	Agent		1	Peasant		1			1
Ikombolinga	Agent		1	Peasant		1			1

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q8B	Q9	Q9A	Q9B	Q10A	Q10B	Q11	Q12A	Q12B
	Business		1			2		1
	Livestock-keeping,Business		1			2		2
	Livestock-keeping		1			2		1
	Business		1			2		1
2			1			2		1
	Livestock-keeping		1			2		1
	Livestock-keeping		1			2		1
	Business&Livestock-keeping		1			2		1
	Peasant&Livestock-keeping		1			2		1
	Business			2		2		1
	Driver		1			2		1
	Business		1			2		2
	Business		1			2		2
						2		1
	Livestock-keeping		1			2		1
	Business		1			2		2
	Business&Livestock-keeping		1			2		1
	Business		1			2		1
	Business&Livestock-keeping			2		2		1
	Business			2		2		1
	Business			2		2		1
	Peasant		1			2		1
	Business		1			2		1
	Livestock-keeping		1			2		1
	Business		1			2		2
	Peasant&Livestock-keeping		1			2		1
	Livestock-keeping		1			2		1
	Business&Livestock-keeping		1			2		1

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q13A	Q13B	Q14	Q15	Q16
VEO	Village	Water Problems	None	None
WAMMA	Village	Water policy,supply and sanitation	Health care	WC member
Village Gvt	Village	Water problems	None	None
Village Gvt	Village	Water service improvement	None	None
WC	Village	Operational problems	None	None
Village Gvt	Village	Water scheme operation	None	None
Village Gvt	Village	Water service improvement	None	None
WAMMA	Village	Water service Sustainability	Domestic usage	community participation
WAMMA	Village	Health and sanitation	None	None
WC	Village	Water service improvement	None	None
			None	None
			None	None
DWE	Village	Motivation on sustainable water supply	None	None
Village Gvt	Village	Chanelling water sources	None	None
			None	WC Chairman
WC,Village Govt	Village	Service provision problems	None	Meetings organizer
Village Gvt &DWE	Ward	Project mgt & service improvement	None	WC member
Dom&Arusha DWEs	District	Water project problems	None	Village Govt member
WC &Village Govt	Village	Project maintanance	None	None
WaterAid&MAMADO	Division	Running water project &poverty alleviation	None	None
WC &Village Govt	Village	Better service provision,Maintanance	None	None
Village Govt	Village	Fund raising	None	WC secretary
WC &Village Govt	Village	Project fund	None	None
			None	None
WEO	Village	Project income and invoices	None	None
Village Govt	Village	How to get private operator	None	WC secretary
WAMMA,WC,Vill Gvt	Village&District	Maintenance	None	None

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q17	Q18	Q19A	Q19B
LVIA,DWE	Technical support,Organizing seminars& receiving reports	1	
Village Gvt	Supervisors	1	
DWE,Village Govt.	Technical service provider, Owner &supervisor	1	
Village Govt,DWE	Owner & supervisor, maintenance &repair	1	
DWE	Technical support&advice	1	
Village Gvt, WC&DWE	Owners ,Supervisors and technical support	1	
Village Gvt and DWE	Supervisors,Maintanance and repair		2
DWE,WC&Village Govt	Technical support,Owner & Supervision	1	
WAMMA &WC	Facilitator & sccheme supervisor	1	
DWE	Regulator		2
WAMMA &WC	Advice provider and Supervisors		2
DWE,WAMMA,WC&Vill Gvt	Technical support,advice,supervisors &owners	1	
DWE,Village Govt &WC	Technical support,advice supervisors	1	
DWE & WC	Maintenance,repairs and supervisors	1	
DWE,WC&Village Govt	Management-organizing donors	1	
WaterAid &Livestock-keepers	Financiers,Reliable costomers	1	
Community,WC,Village Govt&DWE	Manual work,Money contr.Management&Maintenance	1	
WC	Supervisors and managers	1	
WC & WAMMA	Supervision, Maintanance and repair	1	
WC &DWE	Supervision and maintainance		2
WC,Village Gvt & DWE	Supervisors	1	
DWE	Maintenance,repairs&sustainability report on water Project		2
WAMMA	Supervisor	1	
None		1	
None			2
WC	Project operation reporting to the village Govt	1	
WC,Village Gvt & DWE	Regulators,Advice,Experties &Spare parts	1	
DWE	Maintenance and advice	1	

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q19C	Q20A	Q20B	Q21	Q22A	Q22B	Q22C	Q22D	Q23A
Project expansion			2		1	Contract	By-laws	Contract
Better service provision			2			2		
Water coverage expansion			2			2		None
Enough funds for delivery expansion	1		TRA			2		
Popn increase-insufficient delivery			2			2		
Enough funds for delivery expansion			2			2		
Frequent machine breakdown			2			2		None
Enough funds for delivery expansion			2			2		None
Replacement of Engine after 3yrs			2		1	WAMMA	By-laws	Contract
Sufficient services			2		1	Village Govt	By-laws	Contract
Sufficient services			2			2		None
Enough savings for better service provision			2			2		None
Financial standing-Better service provision			2		1	PEM	Inspection	None
Enough savings for better service provision			2			2		None
Arrangements for short distance supply			2		1	WC & Village Govt	By-laws	Contract
Enough funds for delivery expansion			2			2		None
New tanks construction			2			2		None
Community awareness and willingness increase			2		1	WC	By-laws	Contract
Enough funds for delivery expansion			2			2		None
No idea			2			2		None
Water project development			2		1	WC	By-laws	Contract
Sufficient services			2		1	WC & Village Govt	By-laws	Contract
Enough fund for new tanks costruction			2		1	Village Govt	By-laws	Contract
Project expansion			2			2		
Community not organized			2			2		
Arrangements for short distance supply			2			2		
Enough savings for better service provision			2		1	WC & Village Govt	By-laws	Contract
New engine			2			2		None

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

23B	Q24	Q25	Q26A	Q26B	Q27	Q28A
Village Govt acting contrary	DWE	Supervision		1	Receiving project reports	1
Village Govt acting contrary	DWE	Agent adhering the contract		1	Project maintenance and repair	
None	DWE	Monitoring		1	Project maintenance and repair	1
Absence of meter readings	DWE	Design the contract		1	Project maintenance and repair	
Tank capacity	DWE	Agent adhering the contract		1	Technical support and advice	
Poor cooperation	DWE	Witnessing the contact award		1	Maintenance and repair	
Machine breakdowns	DWE	Design the contract		1	Maintenance and repair	1
Machine obsolescence	Village Govt	Design the contract		1	Maintenance and repair	1
Irresponsibility (WC)	WAMMA	Supervision		1	Maintenance and repair	
None	DWE	Supervision		1	Maintenance and repair	
Irresponsibility (Vill Govt)	Village Govt	Supervision		1	Maintenance and repair	
Irresponsibility & dps	Village Govt	Design the contract		1	Supervision	
None	Village Govt	Approval		1	Inspection	
None	DWE	Agent adhering the contract		1	Technical support	
None	Village Govt	Contract elaboration		1	Technical support	1
None	Village Govt	Qualities		1	Supervision	1
None	DWE	None		1	Follow ups	
None	Village Govt	None			2	
None	DWE	Qualities		1	Organizing donors and maintenance	1
None	DWE	Qualities			2	
None	DWE	Qualities		1	Agent adhering the contract	
None	DWE	Qualities		1	Report assessment	1
None	Village Govt	None		1	Construction plans	1
None	Village Govt	Popularity		1	Problem solving	
None	DWE	Qualities			2	
None	DWE	Qualities		1	Maintenance and repair	1
Machine obsolescence	DWE	No idea			2	
None	DWE	Qualities		1	Maintenance and repair	1

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q28B	Q29A	Q29B	Q30	Q31A	Q31B	Q32A
	WC	Management	Cooperation in solving problems		1	Manual work
2			Observing its roles		1	Fund raising& manual work
	HC	Hygienic advice	Better service provision		1	Fund raising& manual work
2			Education			2
2			Education		1	Fund raising& manual work
2			Better service provision		1	Fund raising& manual work
	Edu & HC	Education	Better service provision		1	Fund raising& manual work
	HC	Hygienic advice	Education		1	Fund raising& manual work
2			Better service provision		1	Fund raising& manual work
2			Better service provision		1	Fund raising& manual work
2			Education			2
2			Better service provision		1	Fund raising& manual work
2			Better service provision		1	Fund raising& manual work
2			Better service provision		1	Fund raising& manual work
	HC	Hygiene	Awareness		1	Fund raising& manual work
	HC	Sanitation	Transparency		1	Fund raising& manual work
2			Appreciation		1	Fund raising& manual work
2			No idea		1	Fund raising& manual work
	HC	Sanitation	Transparency and cooperation		1	Fund raising& manual work
2		None	Cooperation		1	Fund raising& manual work
2		None	None		1	Fund raising& manual work
	Security Committee	Security	Cooperation		1	Fund raising& manual work
	Planning& financing committee	Monitoring	No idea		1	Fund raising& manual work
2			Transparency		1	Fund raising& manual work
2			Seminars			2
	HC	Hygiene	Awareness		1	Fund raising& manual work
2			Seminars			2
	HC	Sanitation	Education		1	Fund raising& manual work

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q32B	Q33	Q34A	Q34B	Q35A	Q35B	Q36
Community	Regular services			2		
Community	Follow up done	1		Free service	Authority intervened	Free service provided
Community	VPA				2	
	Cooperation			2		
Community	Regular services			2		
Community	No idea	1		Irresponsibility (VPA)	Expelled	Reporting to Vill Govt
Community	Village Water account			2		
Community	Local artisans and PEMs			2		
Community	WC,Village Govt & PEM			2		
Community	DWE,Village Govt			2		
	Agent and PEM	1		Water shortage	Meetings	Reporting to DWE
Community	DWE,Village Govt	1		Water shortage	Reporting	Reporting to DWE
Community	Agent and PEM			2		
Community	Sub-Committee			2		
Community	DWE			2		
Community	Agent and WC			2		
Community	Security and services	1		Violence and corruption	Introducing by-laws	Conflict resolution
Community	Training	1		Water shortage	Machine maintenance	Construction
Community	Maintenance,services,security			2		
Community	Regular services	1		Water shortage	Repair	Payments
Community	Regular services& security	1		High water prices	Adjusted	Adjusted
Community	No idea	1		Water shortage	Machine maintenance	
Community	Regular services& security			2		
Community	Agent & DWE	1		Disables	Adjusted	Free service provided
	Regular services& security			2		
Community	Regular sservices& security			2		
	Village Govt &WC			2		
Community	Regular services & security			2		

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q37	Q38A	Q38B	Q39A	Q39B	Q39C	Q40A	Q40B	Q41	Q42A	Q42B	Q42C
None			2				1	None		1	Payment delays
None			2				1	Min. 1yr		1	Payment delays
None			2					2			2
None			2					2			2
None			2				1	Max.2mon			2
None			2					2 None			2
None			2					2			2
None			2					2			2
None			2					2			2
None			2				1	None			2
None	1		Acceptable Proportional Flexible contracts					2 None			2
None			2				1	Max.3 mon.		1	Payment delays
None			2					2			2
None			2				1	None			2
None			2					2			2
None			2				1	None		1	Payment delays
None			2				1	None			2
None			2					2			2
None			2					2			2
None			2					2			2
None			2				1	None			2
None			2					2			2
None			2					2			2
None			2					2			2
None			2					2			2
None			2					2 None		1	Payment delays
None			2				1	None			2

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q42D	Q43	Q44	Q45A	Q45B	Q45C	Q46	Q47	Q48
No action	None	LVIA	Organizing donors	Financiers		Reluctant	Selling crops	1
DWE notified	Not specified	No idea				Capable	Selling crops& Livestock	1
		No idea				Capable	Economic activities	1
		No idea				Capable	Business	1
		COTEX		Water a/c		Capable	Business	1
		No idea				Capable	Selling crops& Livestock	1
		No idea				Capable	Selling crops	1
		No idea				It depends	Selling crops	1
		No idea				Capable	Selling crops& Livestock	1
		No idea				Capable	Selling crops& Livestock	1
		No idea				Capable	Selling crops& Livestock	1
Follow ups	None	No idea				Satisfactory	Buying water	1
	None	No idea				Satisfactory	Selling crops& Livestock	1
	None	No idea				Satisfactory	Selling crops& Livestock	2
		BSF/IFAD	No idea	Comm.fund	Raising fund	Satisfactory	Contributions	1
None	None	WaterAid	Organizing donors	No idea	Raising fund	Flexible	Contributions	1
	None	WaterAid,Local Gvt	Organizing donors	Financing	Contributions	Minimal	Contributions	1
	None	Community	Motivation	Financing	Contributions	Satisfactory	Buying water	1
	None	No idea	Enhancing	Financing	Contributions	Low	Buying water &selling crops	1
		No idea				No idea	No idea	1
		WaterAid	PEM	Machine	Contributions	Committed	Selling crops	1
		BSF/IFAD	Buying	Financing	Donation	Committed	Selling crops	1
	None	No idea	No idea	Machine	Manual works	Committed	Selling crops	1
	None	No idea	No idea	No idea	Contributions	Minimal	Mone contributions	1
	None	TASAF	No idea	No idea	Contributions	Very high	Business	1
	None	World Vision,BSF	None	Financing	Contributions	Poor	Selling crops	1
None		None				Capable	Selling crops& Livestock	1
						Very minimal	Selling crops	1

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q49	Q50A	Q50B	Q51A	Q51B	Q52A	Q52B	Q53	Q54	Q55A	Q55B	Q55C
Shallow wells,Rivers,P&E			2			1	Service kit	Shayo			2
P&E			2								2
P&E,BE			2				2				2
P&E,BE			2				2				2
Windmill&Shallow wells			2				2				2
P&E			2				2				2
P&E			2				2				2
P&E			2		1		Handle&service kit	Loshya		1	Not available
P&E			2		1		Taps &service kit	Loshya			
P&E	1		P&E		1		2				2
P&E			2			1					2
P&E			2				2				2
No idea			2			1	Service kit	Peter			2
P&E			2			1	Service kit	Peter			2
Swamps,P&E			2		1		Pulley,cork,bolts	No idea			2
Natural wells, swamps,PE			2		2						2
Natural wells, swamps,PE			2		1		Service kit	DWE			2
Rivers,wells&swamps			2			1	cork,hair filter	DWE			2
wells,swamps,PE			2			1	cork	No idea			2
wells,swamps			2				2				2
P&E			2				2				2
None			2				2				2
Rivers,PE&swamps			2				2				2
PE			2				2				2
wells&PE			2				2				2
wells&PE			2			1	Service kit	Peter		1	High prices
P&E			2				2				2
Swamps,P&E			2			1	No idea	Peter			2

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q56A	Q56B	Q57	Q58	Q59A	Q59B	Q60A	Q60B	Q61	Q62	Q63A
1		P&E	Visualization			2		DWE	Cleanliness,Water analysis	
		2				2		None	Tank cleanliness	
		2				2			Cleanliness	
						2			Cleanliness	
1	Windmill	DWE				2		PEM	Tank cleanliness	
	2					2			Tank cleanliness	
	2					2			Tank cleanliness	
	2					2		WC	Tank&surrounding cleanliness	
	2					2			Tank&surrounding cleanliness	
1	P&E	PEM trainings				2		PEM	Tank&surrounding cleanliness	
	P&E	Automotive mechanics				2		None	Tank cleanliness	
	2					2		WC& village Gvt	No idea	
	2					2		Village Gvt.	Tank&surrounding cleanliness	
	2					2		WC	Tank cleanliness& treatment	
	2					2			Cleanliness& chemicals	
	2					2			Cleanliness& chemicals	
	2					2		Local Gvt.	Tank cleanliness	
	2					2		WC	No idea	
1	P&E	WC training				2		None	Analysis& treatment	
	2					2			Analysis	
	2					2			Cleanliness	
	2					2		None	No idea	
	2					2		None	No idea	
	2					2		None	Tank cleanliness	
	2					2		None	Tank cleanliness	
	2					2		None	Analysis& tank covering	
	2					2		Village Gvt.	Tank cleanliness	
	2					2			Analisis &cleanliness	

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q63B	Q64A	Q64B	Q65	Q66	Q67A	Q67B	Q68	Q69	Q70	Q71	Q72A	Q72B
2	None	None	None	None			2 None	None	None	None		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association,contract			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Trainning			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association&seminars			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Meetings			2 None	None	None	Better		1
2	None	None	None	Trainning			2 None	None	None	Better		1
2	None	None	None	No idea			2 None	None	None	Better		
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	No idea			2 None	None	None	Better		1
2	None	None	None	Meetings			2 None	None	None	Better		1
2	None	None	None	Seminars&meetings			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	No idea			2 None	None	None	Better		1
2	None	None	None	None			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Meetings			2 None	None	None	None		1
2	None	None	None	Association			2 None	None	None	Better		1
2	None	None	None	Association			2 None	None	None	Better		1

FIELD BASED KaR STUDY Data Survey Datas Summarised.xls

Q72C	Q73A	Q73B	Q74	Q75
Serving the community		1	Meetings	Not a good idea
Income		1	Meetings	Good idea
Income		1	Meetings	Good idea
Income		1	Meetings	Cooperation
Income		1	Meetings, media	Good idea
Income		1	Meetings	Cooperation
Serving the community,income		1	Meetings, media	Reduction of monthly deposit
Income		1	Meetings	Serving community's interest
Income		1	Meetings, media	Association, Faithful reliable suppliers
Income		1	Meetings,news paper	Association
Income		1	Meetings	Meters for dps
Income		1	Meetings	Training
Income		1	Letters&Meetings	Development
Serving the community		1	Seminars & Meetings	Not a good idea
No profit		1	Meetings	A need to improve water service
Income		1	Seminars & Meetings,media	Good relationship
Income		1	Meetings	Association
Profit making		1	Meetings	Good idea
Serving the community,income		1	Seminars & meetings	Good idea
Income		1	Seminars	Good idea
Serving the community		1	Meetings	Good idea
Income		1	Media&drama,songs	Cooperation
Serving the community		1	Meetings	Good idea
Serving the community		1	Meetings,media,flyers	Project protection
Fund security		1	Meetings	Good idea
Serving the community,income		1	Meetings	Training
Serving the community,income		1	Meetings	Cooperation
Income		1	Meetings	Fund raising and water reliability