

INSTITUTIONAL MODELS FOR WATER SUPPLY SCHEMES WITH PUBLIC TAPS

June 1999



Library
IRC International Water
and Sanitation Centre
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64

Dick Bouman

INSTITUTIONAL MODELS FOR A SUSTAINABLE OPERATION OF WATER SCHEMES WITH PUBLIC TAPS

D.Bouman¹, Version 01/06/1999

dbouman@wxs.nl

Contents

1. INTRODUCTION	2	4.3.1 Characteristics of organisations	24
2. INSTITUTIONAL SETTING	6	4.3.2 Organisational structure	24
2.1 Actors	6	4.3.3 Staff	24
2.2 Decisive institutional factors	7	5. RESALE AT PUBLIC TAPS	26
2.3 Selection of institutional level for major tasks	9	5.1 Public taps, a major problem	26
3. POLICY, REGULATION AND SUPERVISION LEVEL	10	5.2 Selection of feasible management model	27
4. WATER SERVICE PROVISION	13	5.3 Type of privatisation	28
4.1 Types of Organisations	13	6. MONITORING	30
4.1.1 Public organisations	15	6.1 Monitoring the management of Water User Associations	30
4.1.2 Commercial organisations	15	6.2 Monitoring of Water Service Providers	30
4.1.3 Non commercial private organisations	16	LITERATURE AND MOST RELEVANT REFERENCES	
4.1.4 Private/public partnerships	21		
4.2 Tasks of a Water Service Provider	22		
4.3 Internal organisational structure	23		

APPENDIXES

- | | |
|---|---|
| 1. Manual for selection of an institutional model | 5. Example of an application form for an individual
water connection |
| 2. Example of a Constitution (by-laws) | 6. Types of record forms |
| 3. Example of a Regulation and Rules | |
| 4. Contents of a Provider-Client Contract | |

BOXES

1. Range of possible activities of an O&M organisation	3	7. Type and sub-types of Water Service Providers	14
2. Selection model for O&M	5	8. Checklist for feasibility analysis of community management	19
3. Institutiogramme	6	9. Contract types in private sector involvement	22
4. Environmental scan	7	10. Example of a task division in a rural setting	23
5. Recent trends in water supply	8	11. Options for public tap management	28
6. Policy making, regulation and supervision	11		

CASES

1. Competition in peri-urban Mozambique	7
2. Aguateros in Asuncion, Paraguay	15
3. Decline of community management in Beira, Mozambique	17
4. Privatisation in Tanzania	22
5. Care takers in Mozambique	26

¹ The author is an independent Dutch development consultant on water resources and water supply with long term experience in Mozambique and Tanzania. He made over 35 short missions to these two countries and to Angola, Ghana, Zimbabwe, Malawi, Somalia, Palestine, Guatemala and Rumania. The author invites readers to give comments or additional remarks on this version. E-mail: dbouman@wxs.nl

LIBRARY IRC
PO Box 93190, 2509 AD THE HAGUE
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64
BARCODE: 15427
LO: 202.2 99IN

1. INTRODUCTION

state of the art

The operation and maintenance of water schemes is a central issue in water sector policy. Organisational models have been developed quite well at rural community level and at urban level. But little has been done for the situations in between: groups of villages, small towns and peri-urban areas.

At rural community level, the Village Level Operation and Maintenance Management concept (VLOM) was introduced in the eighties. This appropriate concept was mainly developed for hand-pump supplies. It includes a water user committee, a caretaker, easily maintainable pumps and well obtainable spare parts. The concept of community management is also applied in self-help gravity schemes and other rural schemes, but here, one common approach is missing.

At the other end of the range, full attention has been paid to the increase of efficiency and privatisation of Urban Water Utilities in major cities. The models have been less clear to the approaches for management for the smaller towns, sub-urbs and (groups of) villages in between.

O&M functions

In the past, many O&M organisations were established to keep running a scheme, which was brought by an externally supported project. In addition, the O&M organisation should be able to solve future problems on its own, without external donations different than commercial loans. And where external expertise is required, the O&M organisation has to know how to get it and has to have the funds to pay for it.

Operation and maintenance of water schemes does not only involve the technical activities of keeping the water running within quality standards and with cost recovery; but also includes planning of renovation and extensions and good consumer education. Box 1 on the next page gives the range of possible activities of an O&M organisation. All these activities need a sound management.

The running of water schemes is mostly not a one-tier activity, although it has been in the past in many countries with a centralised government. Despite of tendencies of decentralisation and privatisation, there remains a task for the central and local government in regard to policy making, regulation and control. The running of a scheme itself can be done by one organisation/Utility, which may be public or private or both. But in many cases, there is a system of resale at water kiosks or at public taps, or parts of the reticulation are contracted to a third party.

Hence, one may divide the activities into 2 or 3 major groups²:

1. policy making, regulation and supervision: mostly government (national authority, provincial authority, catchment management authorities and/or municipal authority)
2. water service and or sanitation service provision: municipal departments, public utilities, private commercial organisation, or private user-linked organisation
3. resale (optional): resale of delivered water, by sub-units of the above providers, or by separate private or user linked sub-contractors; in literature the introduction of legal resale is also described as 'de-regulation'

² In a country like South Africa², a distinction is made between the following water services institutions:

- a Water Service Authority (the municipality, responsible for ensuring access to water services),
- a Water Service Board (regional public utility, providing bulk water services to other water service institutions)
- a Water Service Committee (agency to provide water services to consumers)
- a Water Service Intermediary (person, obliged to provide water services)
- a Water Service Provider (person, who is not an intermediary, but provides water to others)

(From: Parliament of RSA (1997) Water Services Bill; in: Government Gazette 23 May 1997)

Box 1

Range of possible activities of an Operation and Maintenance organisation:

1. technical activities:

- 1.1. technical operation and maintenance of the water supply system (water production, treatment and reticulation), including repairs
- 1.2. planning and design for rehabilitation and extensions
- 1.3. construction

2. education activities

- 2.1. health education
- 2.2. consumer education and promotion
- 2.3. complaints handling

3. commercial activities

- 3.1. invoicing and revenue collection, metering, consumer registration
- 3.2. marketing

4. management activities

- 4.1. general management
- 4.2. administration (financial administration and accounting; staff administration; supply administration; asset administration; transport administration; complaints administration)
- 4.3. planning of staff, finances, quality, information and organisation
- 4.4. human resources
- 4.5. financial management and auditing
- 4.6. contracting of constructors
- 4.7. external supervision
- 4.8. external relations
- 4.9. monitoring
- 4.10. water quality control

aim and limitations

The present report is especially written for the following cases:

- where a new organisation has to be set up in parallel to the implementation of a new water scheme, or
- where an organisation has to be set up in parallel to the rehabilitation of an existing one, or
- where there is a need for a dramatic change in the organisation, due to privatisation, autonomisation or the introduction of community based management models.

The report is written for water schemes, which incorporate public taps. Therefore, a distinction is made between the operation of the entire scheme, and the operation of the public tap. Both can be done by one "Water Service Provider", but mostly, the latter is done by a separate operator.

This report doesn't cover all the institutional aspects of the entire water and sanitation sector. The implementation of the operation and maintenance itself, is not dealt with in this report. Further, the report limits itself to the African Water sector, which was the reference for the author. For other continents, however, many tools and aspects may be applicable, as well. The sanitation sector is not included. Although this sector requires as much attention as the water sector, the organisational models are very different, especially in areas, where there is no central sewer system and the organisation is oriented on the service to individual families with latrines.

This version of the report is a second draft and still far from complete and balanced. In later versions, the author would like to incorporate observations and experiences from professionals in the sector, who are invited to react by E-mail.

structure of the report

The theory presented in this report, is translated into a step by step manual to come to a selection of organisational models. The steps are elaborated in the report and summarised in Box 2. The manual is given in *Appendix 1*.

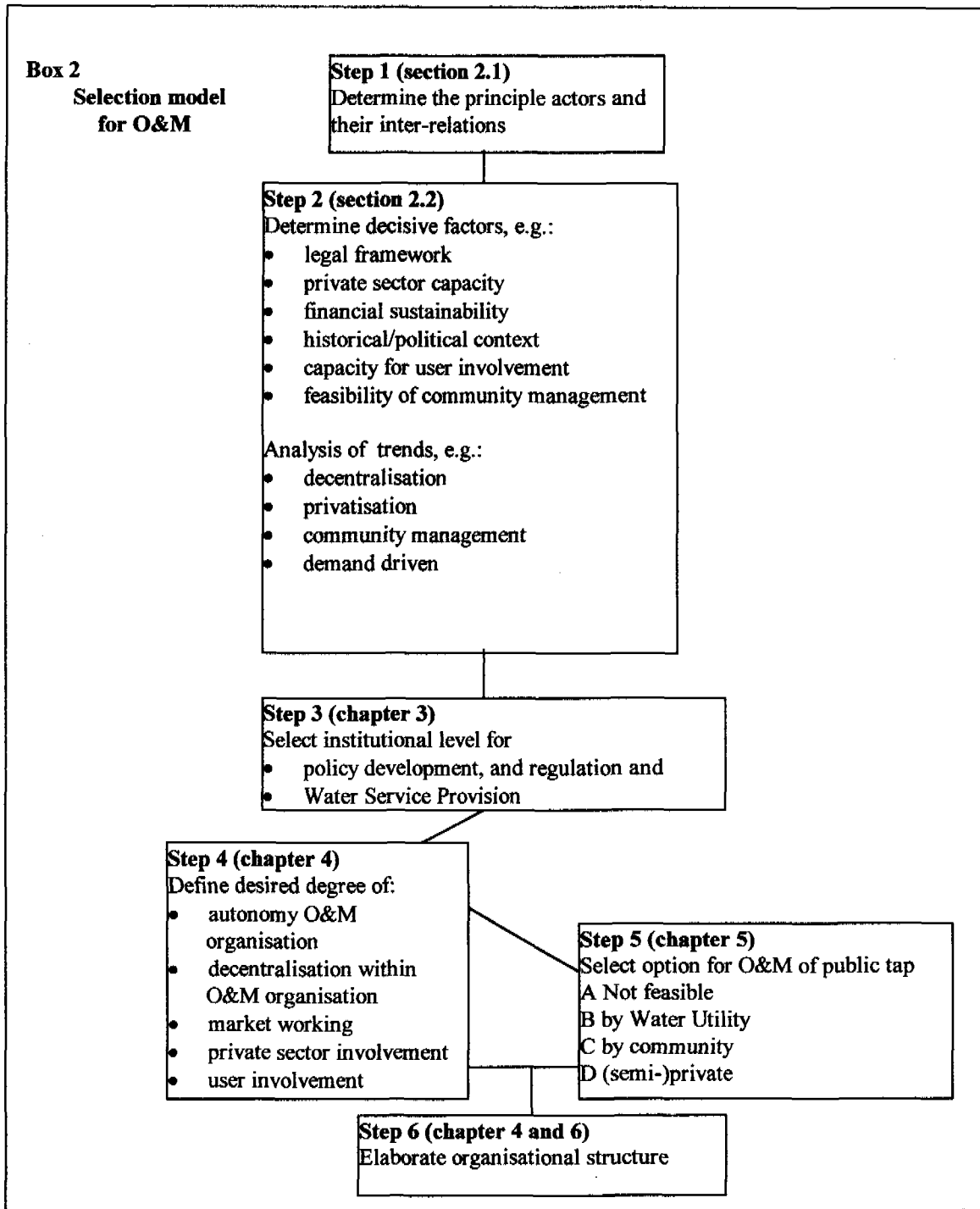
- Chapter 2 deals with the external actors and factors, which may influence the selection of the institutional model.
- In chapter 3 the task of policy development, regulation and supervision level is worked out.
- In Chapter 4 we come at the level of Water Service Provision.
- The management of public taps is elaborated in Chapter 5
- Chapter 6 briefly tackles the issue of monitoring and control

References

Apart from the consulted literature, the author has used 3 specific reference projects for this report:

- 2 gravity fed rural water supply schemes in SW Tanzania, each supplying water to more than 20,000 people in more than 10 villages (Makwale and Kabembe). The Lutheran Church of Tanzania implemented the projects, in co-operation with communities and local government. Financial support was obtained from the Dutch NGO ICCO, in co-operation of the Government of the Netherlands and the EU. For both schemes, community based Water User Associations were set up. The author was involved as the external advisor to the project from 1993 till present.
- A water supply programme to the peri-urban zones in Mozambique. The programme was co-ordinated by the central Government, with the assistance of OXFAM-Belgium. The author was involved as one of the evaluators of the programme in 1997.
- Rural rehabilitation projects in Kenya under the co-ordination of the NGO WAMAS. The author has no direct relation with the projects, but asked WAMAS to reflect on the draft versions of the manual.

The author would like to acknowledge the fruitful support of the SAWA staff, Mrs. Lenie van Goor and Mr. Michiel van der Drift and WAMAS-staff and its advisor, Mr. Wouter Scheltema.



2 INSTITUTIONAL SETTING (step 1 - 2)

The selection of (new) organisational models should fit into the context of the country. Therefore, it should be preceded by an institutional assessment of the national or local water and sanitation sector, for which a distinction can be made between actors (2.1), factors (2.2) and their interaction (2.3).

The most relevant tools are the institutiogramme (box 3) and the environmental scan (box 4), which were derived from an internal publication of SAWA (1997).³

2.1 Actors (step 1)

Box 3: Institutiogramme (SAWA 1997)			
	<i>When to use</i>	<i>Results</i>	<i>Limitations</i>
Institutiogramme (section 2.1)			
Relation diagram, which makes distinction between different categories of actors, different categories of relations and importance of the relation for the sector.	Visualisation to understand the institutional setting of an organisation or a 'project'	Overview of relations; can be used for opportunities and threats; indicates where improvements are required	Subjective; requires good knowledge; provides a snapshot

The institutional setting in most countries can be characterised by the degree of involvement of different actors, like:

- central or local government (national, regional, district or municipality, depending the degree of decentralisation); ranging from implementer to distant legislator, planner and monitor or even absence of any involvement
- private sector (commercial or non-profit)
- users/consumers

The inclusion of the users actually receives a worldwide acceptance. When these three types of actors work together instead of in competition to each other, an enabling environment is created for sustainable development.

That community management is not a panacea to solve all the problems, was clearly demonstrated in Zambia, where the introduction of this management failed⁴. Another example is Kenya, where half of the community managed water supplies perform far below design capacity or stall within 5 years after completion.

In case of the change of an existing organisation, the pre-assessment could include an internal analysis of the organisation and an analysis of the external environment. The internal analysis leads to the formulation of strengths and weaknesses within the organisation. The contextual analysis of the institutional environment leads to the definition of opportunities and threats. This can be resumed in a so-called SWOT-matrix. Strategic choices can be made, when both internal and external factors are matched. Such a so-called SWOT analysis was developed by MDF⁵. Section 6.3 of this report gives a checklist to evaluate the performance of existing water service provision.

³ The Consultancy Company SAWA has resumed some concepts in an internal document: R. van Lieshout (1997) *Institutional Assessment and strategic planning in the W&S sector (sawa@sawa.nl)*.

⁴ Z. Phiri (1997) *Community based approaches - the mythology; in Proceedings WEDC Conference New Delhi 1997; pg 40-41*

⁵ MDF (1966) *Course reader Organisational Development for Advisors and Consultants/ODAC; on SWOT strategy development*

2.2 Decisive institutional factors (step 2)

Apart from the actors, the feasibility of an organisational model is dependent on factors. Factors in the water supply sector are often related to supply (e.g. contaminated water), demand (e.g. seasonal fluctuation; or price/use relationship), policy (e.g. tariff setting; cross subsidies) and degree of co-operation (e.g. strong competition; lack of private business).

In the Environmental Scan (Box 4), one can evaluate the different factors and developments and judge about their relevance; positive (opportunities) or negative (threats).

Box 4: Environmental scan (SAWA 1997)			
	<i>When to use</i>	<i>Results</i>	<i>Limitations</i>
Environmental Scan (section 2.2)			
Puts factors and/or actors around a central point. The closer to the centre, the more influence the factor has on the issue or organisation. One can distinguish positive and negative forces (italic or not). One can divide the circle in 4 (or 6) segments; each representing a certain category of factors (e.g. supply, demand, policy and competition/co-operation)	In a brainstorm on possible factors and actors and their importance to the subject; can be done individually	Overview of the force field of factors and actors; can be translated in opportunities and threats	Brainstorm tool; not a scientific tool

The following determining factors seem to be important:

- Legislation/legal framework. The legal framework should support organisational types. Water rights, ability to open bank accounts, legal forms of consumer associations, and tax exemption are important issues, which may influence the selection of organisational models. In Tanzania, amendments had to be made on the national Water Policy to enable tax exemption for a privatised consumer owned water scheme. Water user groups may have no title deed to claim water rights or are not allowed to open a bank account. In Kenya, self-help groups and Water User Associations may open a bank account, but they have no legal status in law (/court).

Case 1: competition in peri-urban Mozambique

In the peri-urban zones of Mozambique, it was observed that the cost of maintaining a caretaker at a certain public tap was very high and not competitive to a network of private connections from where water was sold to the neighbours. In case of sufficient density of private connections, the public tap was neither feasible nor required. Accepting this reality would free the Water Utility of maintaining a network of public taps in these areas. However, the sale of water to the neighbour was illegal and water sellers could be fined. With a change of Law, much more users could have been reached and scarce resources could have been used for more effective measures. In Jakarta in Indonesia, this so-called de-regulation was successfully introduced in 1990. Here the main purpose was to reduce the profit from the private vending which was done in a cartel, from which the authorities also got their share.⁶

(Bouman 1997a)

- Capacities of the private sector. In countries like Mozambique and Tanzania, the private sector is weakly developed. There is insufficient competition. Care should be taken with commercial spare part distribution in areas, where privatisation is uncommon. Privatisation often leads to monopolies or dependencies on foreign companies in larger cities. There is a huge mistrust towards (small) private providers, but international research has neutralised many of the pre-assumptions (IRC 1999).

⁶ L. Lovei, D. Whittington (1991) *Rent seeking in Water Supply*; World Bank discussion paper INU 85

- Attainable cost-recovery: ranging from coverage of O&M activities to full cost recovery including depreciation. In many countries, there is hardly any freedom of tariff setting, which will hamper the financial sustainability of water utilities. Of course, tariff setting needs some control, which protects the poor consumers and enforces the Utility to improve performance and efficiency. Phasing-out subsidy systems may be required in a period of transfer, especially in areas with a low ability to pay or with high water production costs.
- Degree of user involvement during project preparation and implementation (demand driven/supply driven; involvement in project steering/management). This is a pre-requisite for any form of consumer managed O&M. In Mozambique, the introduction of community managed schemes in the peri-urban areas often failed, due to the poor involvement of the community during project preparation and implementation. User involvement is also required to create a certain degree of willingness to pay.
- Historical/political context. This context determines the acceptability of certain organisation models e.g. private enterprises. In areas in Mozambique, dominated by the opposition party, community involvement was not accepted as it was seen as indoctrination from the central government, using socialist ideas. Community management only works in a democratic context with sufficient possibilities for transparency on the accounts.

Apart from these 5 factor fields, at least 4 recent trends should be reviewed to complete the factor analysis (Box 5). These include: decentralisation, privatisation, community management and demand driven approaches.

Box 5: Recent trends in water supply

- decentralisation/devolution: transfer of responsibilities from central level to lower levels within the government, to private companies, or to levels of community management (see chapter 3)
- privatisation/delegation: handing over management or operational responsibility from government to private companies (see chapters 4 and 5)
- community management, especially for the smaller systems, or at the end-level (public taps; see chapters 4 and 5)
- increased client orientation (demand orientation) of Service Providers, like Utilities (see chapter 4)

These trends are worked out in more detail in the following chapters.

Trends normally tend to become the standard for each solution. However, the applicability should be analysed in each case. Decentralisation may fail, when there are not sufficient competent professionals in the decentralised organisations. Privatisation may fail, when government control is given up. In section 2.1, two examples were given of the failure of community management.

In many cases, the demand driven approach is only a fashion and the community has little to choose. Project preparation is done in a hurry and installed management systems are not adequate.

Other pitfalls during project implementation, which negatively influence the potential for a good performance of a community based management are:⁷

- the wrong concept of handing over: handing over means that the community (or water service provider) has to take over the responsibility for a scheme, prepared by others;
- poor quality of construction, as funding, construction and supervision are often in one hand only, and the community has no chance or right to insist on a good quality

⁷ WAMAS (1997) Nairobi/Kenya

Instead of 'handing over', future users should sign certificates of completion.

In step 2, a feasibility analysis for community management is included.

2.3 Selection of institutional level for major tasks

From the above analysis of actors and factors, one has to attribute different tasks to different actors.

Three major tasks are distinguished:

1. policy, regulation and supervision, including
2. water service provision
3. water vending at public taps

In this report, these three major tasks are dealt with in chapter 3, 4 and 5 respectively.

The selection of the O&M model can be part of a demand driven approach. The project designers have to develop and present to the consumers a range of O&M options with their ins and outs. The final choice of the population should be respected, even if they opt for a model with little community involvement.

3 POLICY, REGULATION AND SUPERVISION

In a review of the African Water Sector (*Abrams 1996*) it was observed, that there is a lot of confusion between policy, planning and strategy.

Policy should define the broad concepts, like:

- defining the underlying principles, approaches and values, such as community based management, cost recovery and environmental sustainability
- setting standards such as what is considered as basic minimum service levels and minimum quality
- financing policy such as the levels of community contribution, mechanisms of donor financing and financing principles for O&M
- institutional framework, clarifying the roles of central, regional and local government and their mandates; as well as the interaction between sectors
- evaluation and monitoring criteria and mechanisms

Once such a policy has been adopted, it provides a basis for planning and the drawing up of development strategies.

Strategy is the way in which one wants to reach goals and objectives and the way one will implement the policy, starting from the contextual reality. It is oriented on the main aspects. When community management is part of the policy, the strategy should indicate along which ways one might reach a situation of community management. The strategy may indicate decentralisation, community empowerment and the use of participatory appraisals as a means to stimulate community management. Strategy development is not a responsibility of the government, alone. On the contrary, it often needs creative ideas, which deviate from the standard solutions..

Planning is a more specific definition of actions to be taken to reach specific objectives and targets within a certain period of time and for a specified area. Timing and the allocation of resources are essential in planning.

At minimum, government (authorities) should focus on policy making and the establishment of regulatory regimes, which provide incentives for achieving goals and sanctions for serious failures, and which give enough autonomy to entities responsible for investment and operations.

At this "policy and regulation" level authorities are mostly the major players. In some cases, part of it is done by private institutions, like mission posts, hospital complexes and university complexes.

Policy should be defined at a national level and be the guide to all actors in the sector for further planning and project definition. It defines the framework, which guides the future interventions. The attempt to "bend the rules" by some donors or agencies should be resisted. The development of national policies should not be an "in-house" exercise, but should try to involve all the stakeholders, including local people.

Decentralisation of responsibilities from a national government to municipalities is a good policy, but without the involvement of the municipalities in the definition of the policy, the municipalities will resist to implement when not enough financial resources are given to assume these responsibilities. The development of policy without a broad consultative process may lead to an unenforceable or a non-implementable policy (*Abrams 1996*).

Decentralisation (devolution or deconcentration)⁸ is a very important aspect in policy development and regulation.

⁸ In decentralisation, a distinction can be made between:

- devolution (transfer of authority and responsibility from national to local governments),
- deconcentration (transfer within the administrative structure to lower levels) and
- delegation ('privatisation') (*WASH 1993a*)

Since externalities and equity effects usually cut across local and regional jurisdictions, environmental and health related standards and programs of support to low-income households may best be established at the central level. Local or regional responsibility for providing service is meaningless, unless it is backed up by the capacity to generate revenues, access to investment finance and a share of regulatory powers, particularly those dealing with service standards and pricing. Central governments should therefore retain an overall oversight in the sector. Central government should stay responsible for the establishment of the basic national policy and it should monitor and evaluate the progress of regional governments towards national objectives. Within the framework of the national policy, regional and local governments should have as much freedom of activity as possible.

Decentralised investment planning and operations are believed to promote autonomy and a more demand oriented approach, and are being promoted as a development objective in most countries. However, since excessive decentralisation of services to extremely small units can undermine efficiency, a regional or metropolitan approach to operations is usually preferable.

In many countries, regulation is carried out by government departments, which may be subject to direct political interference. In other countries, political authorities establish broad principles, such as competition for contracts, economic efficiency and universal access. But in these cases, the responsibility to make the detailed rules and procedures necessary to implement policies and to enforce these rules is assigned to an independent entity.

Box 6 gives a summary of tasks, involved in policy making, regulation and supervision. It should be analysed, which level of authority is involved in each of these tasks to determine the limitations of their mandates.

Box 6

Policy making, regulation and supervision may constitute of the following functions:

- policy making
 - definition of the institutional and legal framework and selection from the above variables
 - definition of approaches
 - definition of social objectives
 - setting of broad targets
 - determination of service levels and price policy (may be decentralised)
- regulation and legislation
 - setting standards
 - development of bylaws
 - establishment of fair competition guidelines for contracts
 - establishment of an enabling environment for private investment
 - enforcement of rules to contracted agencies
 - guarantee of transparency on financial aspects
 - guarantee the protection of water sources
 - protection of the environment
 - defence of user rights
- global planning
- public investments
 - planning
 - negotiation of loans
- Monitoring and supervision

Following the policy is preferential above reaching targets. It is better to do the job properly and thereby ensure sustainability, than to meet short-term targets and risk long-term failure. This is one of the fundamental problems in the water sector on the African Continent (*Abrams 1996*). In the Kabembe Group Water and Sanitation Project in SW Tanzania, this rule was followed, when the project refused to continue the pipe laying unless the villagers would have assumed their responsibility to collect 50% of their initial contribution. In Kenya, WAMAS provides technical assistance, only when the community accepts to pay for 100% of the rehabilitation costs

4. WATER SERVICE PROVISION (step 4 and 6)

Chapter 3 dealt with the activity of policy, regulation and supervision. In chapter 4, the water service provision is dealt with. In chapter 5, the more decentralised options for the operation of public taps are discussed.

For the selection of organisational models, one has to make a choice from different variables, which are dependent on the local context and all the factors, listed before. This selection is step 4.

- Degree of desired autonomy of operating agency: ranging from nationally or regionally controlled agencies to fully independent organisations without any control; often, autonomy is limited in respect to tariff setting, water quality and obligation to reach all layers in society
- Degree of desired decentralisation within the “utility” or geographical area: centrally operated at town/scheme level up to operation at public tap or water vending point level
- Degree of desired and feasible market working: centrally determined operations and tariff control (monopolist) up to competing water sellers in sub-urbs/communities; periodically renewable contracts are a form in between, which induces efficiency
- Degree of desired and feasible private sector involvement/commercialisation: ranging from no involvement of the private sector up to private ownership, with all kind of intermediate forms in between: service contracts, management contracts, affermage, lease contract, concessions and joint ventures
- Degree of desired user involvement; ranging from no user involvement to fully user operated water schemes (e.g. by Water User Associations). It is important that the management style of organisations reflects the way they think about democratic principles and user involvement.

4.1 Types of Organisations

For the provision of water services (Operation, Maintenance and investment) one can distinguish 3 main types of organisations: public, private and public/private partnerships. Box 7 gives several examples and sub-types.

The general preference for public sector involvement is based on the idea, that water is a public good, a basic right and water supply is a social service. The public sector has to defend the right of the poor and has to divide the often-limited quantity of water among different users.

There are, however, 2 major problems with public enterprises:

1. Limited efficiency, due to lack of incentives, lack of competition and lack of means. State enterprises tend to be vertically integrated to a degree that suppresses potential competition. Mostly, public enterprises have a too high staff/connection ratio and are heavily subsidised
2. Problem of vandalism and mis-use of systems because of lack of respect and a too dependent attitude by the community. Often, schemes, run by public services have a high non-operation rate. An extreme was found at the outbreak of the war in Somalia in the early nineties. There, many of the government-operated schemes were completely demolished as protest to the old political regime. Less extreme examples are found everywhere, where public taps have broken down, due to public negligence and lack of maintenance by the authorities.

Privatisation by a commercial enterprise aims mainly to tackle the first problem, but can also contribute to a more client centred orientation and good marketing.

Privatisation by water user groups aims mainly to solve the second problem by making people responsible for their own facilities and their protection. The first problem may be partly solved by the fact that the employees or volunteers work much closer to the users and feel a social responsibility and pride towards their community. This attitude, however, cannot be taken for granted. In many committees, the chairman is more favoured with a nearby tap, than most of the villagers. In other cases, originally voluntary boards start to pay themselves a fee for each board meeting, or even salaries.

Box 7

Types and sub-types of Water Service Providers

- 1) *Public*
 - Department of government administration (municipality, district etc.)
 - State enterprise
 - Para-statal enterprise
 - Semi-public enterprise

- 2) *Private*
 - Private commercial enterprise (limited liability by guarantee or shares, unlimited liability, unlimited liability partnership)
 - Non-profit non-governmental service organisations (and Trusts)
 - User owned enterprise (limited liability, co-operative society; unlimited liability is unlikely)
 - Non-profit water user organisation (water user association, consumer associations, foundations etc.)

- 3) *Public/private partnership⁹*
 - Co-operative
 - Joint Venture
 - Franchising, affermage, leasing, concessions

Although community ownership and community management are key issues in the African water sector, the consumers themselves do not always desire them. Often, the client doesn't want to be bothered by problems of management, operation and financial control. Community management may sometimes be unfeasible. In the peri-urban zones in Mozambique, the consumers didn't trust their elected representatives. Elections were still done along the old political lines, whereas it was known that these structures involved a lot of corruption. The same situation was found in some rural villages in NE Tanzania, where incapable traditional leaders could not be by-passed, due to traditional rules. Peri-urban zones and rapidly growing trade centres lack mostly a social structure, and community management is very difficult to organise. In these cases, an independent and not politicised organisation has the best chance to be respected as the water service provider.

Where community management is not feasible, the challenge remains to involve the consumers as much as possible in all stages of the project preparation, implementation and scheme management. The concept of partnership approach with the community is well elaborated by IRC (IRC 1991).

⁹ P.Gidman, I.Blöre, J.Lorentzen, P.Schuttenbelt (1995) *Public-Private Partnerships in urban infrastructure services; Urban Management Programme Paper Series 4*

4.1.1 Public organisations

When the operation of water supply services has to remain within the public domain, it is recommended that the water supply authorities will try to integrate the positive aspects of the other 2 organisations:

- high degree of autonomy
- management in a business-like manner striving to high efficiency rates
- good external control
- a certain degree of user involvement (not only through councils)

4.1.2 Commercial Private organisations

For commercial organisations, it is believed that they can deliver marketable services at lower costs than the public sector. Normally this is reached by competition, but in the water sector, day to day competition is mostly absent, except where privately owned water points are close to each other or where water is sold by mobile water vendors (tanks etc.). In other cases, competition can be reached by making the contracts for a defined period, introducing a kind of periodic competition. Other incentives to promote efficiency can be introduced, like service depending contracts, productivity bonuses, shares or performance contracts. Tax exemption is a major issue for commercial enterprises to be able to compete with public and non-commercial organisations.

Commercial organisations can be profit oriented or can be explicitly non-profit (or not-for-profit). This doesn't make a difference for the internal operations, but the clients often earlier accept a non-profit organisation.

The ins- and outs of commercial enterprise involvement in the sector are described in a WASH publication. (*WASH 1993b*). Privatisation is discussed in section 4.1.4.

A recent study of UNDP/World Bank, co-ordinated by IRC in The Hague, on the so called Small Scale Independent Providers in Africa and Latin America stresses the important role of these small private entities for the whole sector. The studies show a flexible sector, which has to overcome a lot of obstacles, but is able to provide good quality water at competitive prices in comparison to the public sector.

Case 2 Aguateros in Asuncion, Paraguay

In Asuncion, private small-scale providers have found a good market in the new development areas of the town. Anticipating on further town development, they develop a water distribution infrastructure. Water distribution is normally from privately owned boreholes. Although they work in competition, they have associated themselves, which has contributed to their image. With \$0.30-\$0.40 per m³, the charges are lower than the Utility price of \$0.40. Client satisfaction is high.

Fernando Troyano (1999) Small Scale water providers in Paraguay (UNDP/WB W&S Program)

In her study in 5 Latin America cities, Tova Maria Solo¹⁰ came to the following comparative advantages of small independent providers:

1. personalised services
2. varied services
3. capacity to grow with demand
4. capacity to reach the poor
5. greater efficiencies on collection and billing, investments and lower unaccounted-for water
6. technological innovations
7. fluid business and
8. lower rates

¹⁰ Tova Maria Solo in her presentation on the 'Exchange day 26/2/99' on the research on Small Scale Independent Providers of W&S to the urban poor, organised by IRC in The Hague.

As barriers to development of competitive markets, she mentioned:

1. regulatory frameworks
2. political un-will
3. concession terms
4. uneven playing fields (esp. on financing [like loans or subsidy] and poor control on illegal connections)
5. culture of the white elephant
6. negative historical view on private providers

Wandera, Brown and Sykes¹¹ added for the East-African Sector some internal constraints, like:

1. absence of collective voice
2. inadequacy of marketing skills,
3. weak internal management skills (esp. financial)
4. lack of information
5. high dependency on public services
6. poor environmental practices
7. high prices when water has to be supplied by truckers

4.1.3 Non commercial private organisations/user managed

Most of the non-commercial private organisations in water service provision are community based.

In this section, several aspects of community management are dealt with:

- reasons of failure
- most feasible start
- key issues in community based management
- legal organisation types
- feasibility analysis
- financial management

There is a general acceptance that community based management of services will improve sustainability. However, in few cases, this type of national policy statements has been successfully applied. This is partly due to the lack of adequately equipped and trained staff to apply the principle in practice. At this moment, most of the projects still follow the old concept where communities are only informed on pre-cooked proposals and where they have given the chance to solicit their involvement. This is not a demand driven development and the choice is still too much enforced by the supplier.

Furthermore, it is very difficult, if not unfeasible, to transform a top-down implemented project into a community managed scheme afterwards. Major aspects are the absence of community involvement in the selection of technology and management models, the lack of training of local staff and the discrepancy between luxury service conditions during project implementation and the poor service conditions afterwards.

It seems, that the community management concept is most appropriate:

1. where communities have been fully involved and engaged in the design of the project (scheme) and their management, right from the beginning, and where the project is based on a clearly expressed need (demand) from the community; preferably the community was contracting the implementing party
2. where communities have taken the initiative to rehabilitate poorly operating or non-operational schemes and have shown the willingness to take the responsibility for O&M.

¹¹ Bill Wandera (Uganda), Ato Brown (Kenya and West Africa) and Adam Sykes (Tanzania) on the same Exchange day

3. where there is a clearly defined formal role for a water committee

The approach is successfully implemented by WAMAS in Kenya, which has assisted 5 water schemes in their rehabilitation and the set-up of a community managed service provider.¹²

Case 3 Decline of community management in Beira, Mozambique
 In the City of Beira in central Mozambique, a Finish supported project started to create water committees in each sub-urb. The villagers were involved by the Water Utility in the rehabilitation of old public taps. A local person (man) was appointed by the committee to be the operator of a tap. There remained a direct link between the operator and the Water Utility; the local water committee stayed without a formal function. Within 3 years of time, 96% of the committees became inoperational, despite of a huge effort of the Utility to keep them running.

Bouman 1997a

For user owned water schemes, the key issues are:

- the creation of self-esteem (through mobilisation)
- the feeling of ownership
- the acceptance of voluntary functions and restricted sitting allowances for committee members
- management and organisation
- internal communication
- staff employment
- the existence of a high transparency in financial matters
- a good back-up from outside.

The latter is emphasised by various organisations and can be given in different ways. Back-up service can be reached through umbrella water user associations, as they are developed in Kenya¹³. Another example in Kenya is given by the service NGO WAMAS, which is specialised in the provision of back-up service on management and technical issues. Other possibilities are through a protective agency, which may be a locally based organisation, which assisted in the implementation of the water scheme. In the Makwale Schemes in SW Tanzania, this is the Lutheran Church, which acts as a certain trustee towards the Makwale Water User Association.

For transparency in financial matters of the user-managed organisation, there should be an external auditing and the organisation should provide regular (monthly - annual) information on the income, expenditures, savings, investments and plans. It is recommended, that a Water Service Provider opens 2 accounts: one savings and investment account, and one operational account. For transactions with the first account, more than 1 signature (preferably of an external person) is required. Collected fees are brought to the savings account, from which the operational account is supplied with monthly instalments.

Legal organisation types

There are many legal organisation types applicable for user managed water schemes. In Tanzania, the following legal options were available for user involvement in ownership¹⁴:

¹² WAMAS (1997) *Management Services Manual for low performing and stalled community based water supplies*; POBox 20923 Nairobi; E-mail: baobab@AfricaOnline.co.ke

¹³ J.S. Mukhawana and J.J. Hukka (1996) *Sustainability of community water supplies*; in: *Proceedings WEDC Conference Kampala 1996*; pg 99-100

¹⁴ *Business Care Services (1994) Report on the study made on autonomization of Wanging'ombe Water Supply Project/Njombe District/Tanzania; and*

- *Trust*: legally under the custody, management and care of a specified person or institution. The involvement of users is very limited. A water scheme can be brought under the Trust of a Church. This is appropriate to the water schemes at institutions.
- *Partnership (Joint Venture)*: ownership by members; liability of the members is unlimited. Mostly applicable for small groups of individuals or institutions.
- *Unlimited Liability Company*: all shareholders (users) are fully liable to financial risks
- *Limited Liability Company*: liability of shareholders may be limited by guarantee or by shares. The villagers in the first privatised schemes in Tanzania elected this type of organisation, as they didn't want any government involvement and didn't want to be fully liable but to have a say over the new investments and destination of the financial surplus.
- *Co-operative Society*. Although the Co-operative Society in Tanzania is an excellent form for user owned schemes, the villagers are afraid to apply it, due to the many problems with the politically enforced societies in the past with many cases of malversation.
- *Consumer Association (Club)*, which may be appropriate for schemes, developed as self-help projects

Registration is required to get water rights and the licence to supply water to consumers in the service area. Mind, that registration for the protection of watershed areas is different from that of water rights.

All types of user owned organisations require a certain type of constitution. *Appendix 2* gives an example of a constitution for a Water User Association in Kenya. In addition to a constitution, it is recommendable to develop Rules and Regulations for the day to day management, which also can serve as a base for the agreement between client and provider (see *Appendix 3*).

Feasibility of community management

The feasibility of community managed schemes depends on a full range of factors, ranging from the internal social cohesion and strength of traditional or political structures to the complexity of the technology, used. Village management and village ownership don't exclude the involvement of third parties. The VLOM concept in borehole/hand pump operated schemes is appropriate for the maintenance of the pump, but is hardly applicable for the borehole itself, where maintenance may be required, once in 5 to 10 years. For this maintenance, a village and most of the public or private agencies have to rely on a drilling company. The villages are also dependent on the availability of the spare parts for their pumps. External expertise is required for major failures in gravity schemes, e.g. damage of intake structures, cracks in water tanks, washed out river crossings or poor hydraulic functioning of the reticulation. The essential point in the set-up of an O&M system is to enable the O&M organisation to manage the supply and to be financially and logistically able to find the required expertise.

Below follows a list of key factors, which may influence the viability of community ownership and community management in a positive way.¹⁵ The list is summarised in Box 8.

1. Strength of (traditional) community organisations (history, strong social cohesion, strong and respected consensus based leadership, transparency of decisions to all (men and women)). Some modern schemes require management models, which do not fit in the traditional organisations or destabilise traditional rights and may cause conflicts of competence and power. Misappropriation of communal funds in the past is common. Internal communication is often a constraint: leaders may inform an inner circle of old men, only, excluding ordinary villagers and especially women.

Business Care Services (199.) Report on the study on autonomization of Kiliwater/NE Tanzania

¹⁵ Often the word 'community' is used. However, a 'community' is often not a unity and care should be taken with the differentiation within the community.

Box 8**Checklist for feasibility analysis of community management**

1. Strength of (traditional) community organisations
2. Presence of an active attitude/self-esteem
3. Potential for the involvement of women
4. Acceptance of voluntary work
5. Potential community skills for accounting and administration
6. Presence of basic technical skills
7. Availability and willingness of required skilled staff
8. Water supply and chosen technology should respond to the felt need, measured by a willingness to pay
9. Technology options should be compatible with the community's ability to handle; in combination with the capacity of the private sector
10. Availability of spare-parts
11. Potential for cost recovery
12. A facilitating government
13. Supportive legal framework

2. Presence of an active attitude/self-esteem of the community members to work on their own development and absence of a too strong attitude of dependency towards the government or outside donors.
3. Potential for the involvement of women in decision taking and management activities. Although this is not a killer assumption in most of the projects, there should be given full attention to this potential as women are often the most affected group when water schemes are poorly functioning
4. Acceptance of voluntary work. Some of the work may be paid (caretakers), but many of the management tasks should be voluntary, especially in poor communities. Payment of excessive allowances to board or committee members will negatively influence the sustainability. In poor communities, the problems to pay for labour are high. On the other hand, these communities normally are helped with an increase of income for specific poor unemployed groups.
5. Potential community skills for accounting and administration. Literacy and financial expertise should be basically available (threshold capacity). Further capacity building is often required. Attention should be paid to the reliability of the selected people and the chance that they may stay in this function for a long time (even after marriage or giving birth). Mostly, women receive much more respect for these functions in society.
6. Presences of basic technical skills in the community, like masons or bicycle. Further training is often required. In the selection of caretakers, attention should be paid to the potential of women, especially for hand pump repairs.
7. Availability and willingness of required skilled staff (e.g. operators, extension agents, administrators or even water technicians) to work and live in the target area. Not only the working and living environments are essential, but also the salaries and benefits which may be obtained. Often, the private sector competes with their talents.
8. The water supply and chosen technology should respond to the felt need of the community members. There should be a basic awareness of the need for good hygiene and further education is often required. There should be a strong willingness to pay.
9. The technology options should be compatible with the community's ability to handle it and at least the operational costs are within their ability to pay. The technology options should be adapted to the required mechanism of cost recovery (e.g. installed meters, controlled public water points etc.). If repairs are too complex, there should be a third party within their reach, which can assume

responsibility. Service contracts for complex maintenance and repairs for complicated machinery (electric generators, pumping stations etc.) should be considered and analysed on their feasibility. In these cases, the capacity of the private sector should be sufficient.

10. Availability of spare-parts and the possibility to design a scheme with products, available at the 'local' or national market. Hence it is required, that standards set by the authorities are followed. It is recommendable, to have a look to standards in other sectors as well (e.g. irrigation, construction). Spare-parts should be available in the local currency. Transport and logistics should not be too complicated.
11. Potential for cost recovery: legal framework, strength of the regional/national economy, willingness and ability to pay and tariff-setting policy. In this respect, it is important to know about the existence of alternative water sources and the people's willingness to abandon these. Hyperinflation and rapid devaluation will negatively influence the capacity of the community to cover their operational costs and especially to save money for future extensions or to pay for depreciation.
12. Existence of a facilitating government for community development, which is not working too closely to the community, but is able to respond to public requests for information and services and has the possibility to improve the access of communities to loans and credits. The existence of stimulating health education programmes is a very positive factor. Decentralisation is mostly a positive element.
13. Supportive legal framework (right to manage their own scheme, possibilities for registration; access to water rights; access to credits; protection of the poor)

financial management

One of the difficult issues in community management is the accumulation of funds, especially where the revenue collection includes savings for future extensions, repairs or replacements. The required accumulated funds are mostly very high and very attractive for (temporary) use for other community activities or even misappropriation. Therefore, it is recommended that use of maintenance and re-investment funds should need a counter-sign from an outsider, which may be a district or regional government official, a church representative, an umbrella organisation, or a professional service NGO. Systems of loans to be paid back seem to be more appropriate than vast savings systems. Hence, credit facilities should be enlarged and may replace direct investments/grants of donors for infra-structural works. Another problem for the accumulation of funds is hyperinflation and devaluation, if the interest on the savings account is much lower. In these cases, temporary re-investment of these funds in reliable objects may be a possibility, but care should be taken not to take too many risks and to avoid mis-appropriation. In the Makwale Project in SW Tanzania, some of the funds were immediately used to purchase new materials for stock. In case these materials would not be of use, they could be re-sold in future. This is only possible with materials with a long lifetime. Care should be taken with tax-regulations. Theft may be another problem.

The following aspects are important in respect to the financial management of community managed schemes:

- Proper Billing and bills despatch at fixed dates of the month/quarter/year.
- Revenue collection: All billed users must pay at given time, failure of which will result in automatic disconnection.
- The payment period and the date of the disconnection should be regular each month/quarter/year.
- Recording: there should be one uniform system of recording, laid down in a manual for financial management
- Banking: All revenue collected must be banked in the water fee account. Money should not be used after collection without banking it first. Operational and small maintenance expenditure will be paid from the operational account. After approval by the Board/Committee, standing monthly transfers

will be made from the water fee account to the operational account. The remaining funds in the water fee account are used for large maintenance and system replacements.

- Budgeting: management committee members and or personnel will be trained in proper budgeting and the preparation of Balance sheets of the water fee and operational account. These two records of both accounts will be read to the Board/Committee, approved and adopted. It is on the basis of proper budgets that scheme expenditure should be based.
- Within one scheme or between some different schemes, one can apply a 'solidarity' principle, if some villages in a scheme have high costs (small population; large distances; expensive materials) and others have low costs.

4.1.4 Private/public partnerships

Most of the Water Service Providers in the world are private-public partnerships. This involves co-operatives and joint ventures, in which authorities and private organisations have their own defined share and responsibilities. But it also involves all the systems, in which the authorities own the assets, but the management and operation is contracted out.

The division of tasks between the public and private organisations in Operation and Maintenance can vary considerably and will depend on the choices, made by the government in regard to the policy. The degree of involvement can best be defined by the types of contracts, given in Box 9.

The private involvement can be for the whole water scheme, for groups of water schemes or for a small part of a water scheme. For example, the Public Utility can decide to give concessions to private enterprises for sub-schemes in certain sub-urbs or in different villages. In this case, the Utility supplies the water in bulk to an 'end-point' with a water meter, from where it is distributed by the contracted party. In these cases, where private organisations take water from a central system, the supply from the central system should be guaranteed by contract by the provider; for which the contract should stipulate penalty conditions. Care should be taken that a far going decentralisation may lead to a too complex situation of small entities, which have not the advantage of economics of scale and require high staff inputs.

Investment decisions, made by financially autonomous or private operating companies are likely to reflect market conditions as well as operational considerations. Responsibility for investments and operations can be transferred to private firms under a concession or BOT arrangement for a defined period of time without transferring the ownership of assets.

Although, there are obvious advantages to giving responsibility for investments and operations to a single autonomous company, this may not always be a feasible solution, particularly during the initial stages of a sector reform program. If the country has a risky investment environment, costly investments may have to be separated from operations in order to attract private involvement in the latter. In such a case, leasing is a better option.

Box 9: Contract types in Private sector involvement (P=full involvement; o = optional)										
	Length of contract (Yrs)	Ownership fixed assets	Financing major investments	Financing short term investments	Financing repairs	Billing of consumers	Day to day operation and preventive maintenance	Repairs	Constructions/works	
Service/project contracts	proj							P	P	
Service/billing contracts	<3					P				Also at level sub-system or standpost
Servicing contracts	<3						P			For special parts, like pumping station
Service/operation contracts	<5					o	P			Also at level sub-urb or standpost
Affermage	<5				P	o	P	P		Also at level sub-system
Lease contract (rent)	5-10		P	P	P	P	P	P		Also at level sub-system
Build/Operate/Transfer Contract	15-30	P	P	P	o	P	P	P		Also at level sub-system
Concession Contract	15-30	P	P	P	P	P	P	P		Also at level sub-system
Privatisation contract		P	P	P	P	P	P	P		Fixed assets mostly sold at reduced price
Private ownership		P	P	P	P	P	P	P		Mostly selling needs a licence; also at sub-system or point system level

In the rural setting, the spare-part distribution can be privatised as well.

Privatisation is risky, when it is done at once¹⁶. A step by step approach is recommendable. Problems of inefficiency or lack of funding cannot be solved automatically by simply transferring authority to lower levels or to privatisation (see Case 4)

Case 4 Privatisation in Tanzania

Mid nineties, the Government of Tanzania decided to start a privatisation of large 'rural' schemes. The first schemes to be privatised were in Kilimanjaro area in the North, where the company Kiliwater was formed, and Wanging'ombe in Iringa Region in the SW. With support of the German GTZ, Kiliwater was created. In these schemes, the privatised companies had to take over the excess equipment and staff, which led to high user rates. In the Makwale scheme in SW Tanzania¹⁷, the operational costs could be kept at 20% of the cost of the other 2 schemes, because the project was set-up as community owned and managed.

In the central area of Tanzania, a successful huge privatisation programme of smaller schemes is under implementation with the technical assistance of the Dutch Company DHV.

4.2 Tasks of a Water Service Provider

Operation and Maintenance in an urban setting normally includes the following groups of tasks:

1. technical activities

¹⁶ A.N. Alawni (1997) *Role of government, NGOs and private bodies; in Proceedings WEDC Conference New Delhi 1997; pg 31-33*

¹⁷ D.Bouman (1997) *Final Report Makwale Group Water Supply Project/Tanzania; ELCT Konde Diocese*

2. education
3. commercial activities
4. management, administration and control

Box 1 gives an elaboration of these tasks.

The task of *construction* and of Operation and Maintenance may be distinguished and is not by definition under the same organisation.

Health education and animation are mostly not seen as a task of the Water Service Provider and are often the first activities to be eliminated after a process of privatisation. In modern organisational theory, however, health education and animation give the opportunities to work in a consumer-oriented way and are key activities in a utility organisation. Health and consumer education may have a good spin off in community commitment and satisfaction, and hence in willingness to pay. From this point of view, health education will pay itself back, easily.

This view fits into an approach of consumer orientation, which may include the following:

- to work in a demand oriented way (to provide the service required against real costs)
- to be visible to the consumers (pictogram, name, known office)
- to be accessible for complaints
- to have procedures for complaints
- to have statistics on complaints and what has been done with it
- to give education on water use, hygiene, and environmental protection (e.g. at schools)
- to provide regular information
- to be transparent in the use of funds (annual publication)

Apart from this attitude, it would be good if the organisation develops a 'provision agreement' with each client/consumer or water committee, in which mutual responsibilities are established (see *Appendix 4*).

4.3 Internal organisational structure of a Provider (step 6)

The internal structure of a Water Service Provider might be directly linked to the mentioned 4 main activity fields. Such a wide range of activities is typical for an urban Utility, but is difficult to realise by a user owned rural scheme, where all the activities have to be done by a general board, an executive board, sub-committees and the (employed) operators or care-takers. Rarely, co-ordinating water technicians, animators or administrative staff are (full time) employed in a rural setting. A possible set-up for a rural setting is given in Box 10. In Kenya, the type of staff, which is regularly employed in larger schemes, is: line patroller, clerk and kiosk attendants.

Box 10: Example of a task division in a rural setting

In a typical rural setting with a water scheme, supplying to several villages, the division of tasks may be as follows:

general board:	planning and overall monitoring
executive board:	administration, human resources, management, complaints handling and marketing
village water committees:	invoicing and user registration, education, promotion and information and participation in general board
care-takers:	operation (sometimes: fee collection)

External contractors, contracted by the executive board after approval by the general board mostly do design and construction. In the case of the Makwale Schemes in SW Tanzania, the function for monitoring of water quality and hygiene education was handed over to the local hospital.

4.3.1 Characteristics of organisations

Without going into much detail, an organisation can be characterised by:

- its mission
- the outputs
- the inputs
- cost effectiveness
- the environment

or

- its strategy
- its structure
- its systems
- its management style
- its staff
- its culture

Most institutions (private and public) are generally associated with autocracy, bureaucracy, authoritarian and top-down (*Abrams 1996*).

This dominant culture of Water Service Providers is counterproductive to the approach of empowerment and capacity building, which require transparency, partnership, flexibility, respect and empathy. Service conditions of staff are a major issue, especially in public and user-owned organisations.

4.3.2 Organisational structure

The organisational structure relating to the agency's operational system should be planned in line of the targets and the functions to achieve them. Certain functions don't need to be within the organisation, or can be shared at a higher level (e.g. design and construction, or maintenance of equipment). Some systems are complex and require centralised organisations.

The objective of an organisational structure is to enable operation and maintenance to reach objectives and targets and will ensure proper functioning.

There are many factors, which determine the internal organisation of a Water Service Provider. A discussion on all these factors goes beyond the purpose of this report.

Step 6 in Appendix 1 gives an elaboration of steps, which will lead to a draft outline of an internal organisation. It should be stressed, that a clear division is made between the over-all management of the organisation and the day-to-day management and the operation.

4.3.3 Staff

Staff composition and board composition are dependent upon the size and complexity of the scheme and the selected organisational model.

The staff and board members of Water Service Providers often need to receive training, before they can perform in line with their duties.

The technical staff needs normally technical training: in theory and practice. The development of operation manuals is very important in this respect.

Bookkeepers and treasurers of water committees should be trained in financial management e.g. the use of petty cash vouchers, cashbooks etc.

Key areas for the training of management committees are:

- Ways of conducting proper elections
- Electing the executive committee.
- Duties of the management committee.
- Duties of the executive committee i.e., chairman, secretary and treasurer as specified in the by-laws.
- The importance of calling elections at times stipulated in the by-laws.
- Recruitment of scheme personnel.

5. RESALE AT PUBLIC TAPS (step 5)

5.1 Public taps, a major problem

The Water Service Provider might decide to limit its activity to the central provision of water and to the service level of house- or yard connections. The supply of water to people without such connections is mostly through public taps. In many countries, these public taps were free to everybody and were left unattended by the water provider, leading to damage and mis-use. The decay of the network of public taps has led to a situation where people have to rely on their traditional sources with poor water quality. In other situations, people are forced to buy water from private sellers or neighbours at prices, which are commonly a factor 5 to 10 above the formal water tariff.

With the present approach of cost recovery, public taps have become a central issue. In rural areas, where the social cohesion may be strong, one can agree with all the consumers to pay a regular fee to cover the costs for repairs, whereas a permanent tap caretaker is not required.

In the absence of such a social cohesion in most peri-urban and urban areas, the only viable model seems to be a system with caretakers at each domestic point or to sell through water kiosks. This has large cost implications if the caretakers have to be paid (Case 5). Studies in SE Asia have shown, that the price of water sold by mobile water sellers was a factor 10-50 times the formal rates¹⁸.

Case 5: Care takers in Mozambique

In a study in peri-urban areas of 7 towns in Mozambique, it was found that 50 to 80% of the collected fees were required for the remuneration of the caretaker and the users had to pay between 2 to 12 times the formal water tariff. However, this amount was still smaller than the rates applied at the private market.

Often, these fares are quite realistic and will not lead to big earnings, especially not in conditions where there is competition or where people can find alternative water sources. In the coastal town of Quelimane in Mozambique, informal water tariffs were found to be a factor 6 times higher than in the capital Maputo. However, people in Quelimane bought only 5 l/cap/day for drinking, whereas they obtained water for other domestic purposes from traditional sources, for which they had not to pay.

The profession of water seller or tap caretaker is not an easy job. Often, people work 7 days a week from 5.00 am to 18.00 p.m. with a break in between. In Mozambique, commitment of most of the caretakers was reasonably low, especially in combination with the limited remuneration. In most cities in Mozambique, the concept of caretakers was introduced only 3 years ago. However, of the interviewed caretakers, only 33% were the first caretakers at a water point. This shows the vulnerability of the system.

(Bouman 1997a).

If paid caretakers are required, one may try to reduce the costs by increasing the capacity of each water point, so that 1 caretaker can serve more people. The disadvantage is, that the density of water points will be reduced and the walking distances will increase. Hence, this alternative can only be applied in densely populated areas without alternative water sources.

Caretakers are often only respected if they make part of the same society. External caretakers are not respected, and may create an attitude of mis-use among the consumers.

¹⁸ L. Lovei, D. Whittington (1991) *Rent Seeking in Water Supply*; World Bank Report INU 85

5.2 Selection of feasible management model

Before going to the point of a paid caretaker one should analyse the following alternative options:

1. *The need for public taps.* Instead of the introduction of public taps, one may decide to provide water to that part of the households, which can afford for the investment and the water tariff. If such a private network is dense enough (in Mozambique, a figure of 30% was found to be effective), public taps are not viable any more. Then it is more feasible to accept that people resale water from their private taps to their neighbours, for which they may add a certain percentage to the formal water tariff. A pre-condition is, that re-sale of water is a legal activity and no progressive tariff is applied. Authorities should monitor the fair distribution of water points over the area.
2. The viability of a *general water and sanitation tax* to each household. The problem with this system is the lack of control and lack of responsibility at the tap. Hence, it only works in areas with a good social cohesion, a good social control and a well-developed community responsibility.
3. The possibility to work with *volunteers* instead of paid caretakers. One may think on a rotating scheme with different people for each part of the day. Such a system encourages the idea of community management and enables women to participate in this process, as it can be combined with other duties.
4. *Automation* of the fee collection is an alternative, where one has to pay to a machine before one can get a bucket of water. This system is applied by a commercial vendor along a highway in Uganda¹⁹, linked to solar pumped systems, but it seems to be very far from the reality in most of the situations in Africa.

For the Water Utility, privatisation of the public water points is an advantage, as it can sell the used water for the price of the production costs, without having to spend money on the operation of the taps.

If community management is selected as the preferred management model for stand post operation, the feasibility of community management should be checked and a constitution and a client contract should be elaborated (Appendixes 2-4 and section 4.1.4).

In Appendix 1, the selection of the resale option and management of the public tap is an important issue. If community management is feasible, the range of options includes:

- community management without a paid watchman in small rural villages,
- community management with voluntary watchmen/care-takers in larger rural schemes
- community management with employed or contracted caretakers in an urban setting.

If community management is not feasible, the only sustainable options are with an employed or contracted caretaker. Systems run by the Water Service Provider without caretakers are due to collapse.

Box 11 gives a summary of options.

- A No public taps
- B Water Utility responsible
- C Community responsible
- D Operator responsible

¹⁹ Oral information

Box 11: Options for public tap management			
OPTIONS	Disadvantages	Advantages	Conditions
A. No public taps; provision of water to private connections in all areas	<ul style="list-style-type: none"> • High investment 	<ul style="list-style-type: none"> • Long term • Low operational cost • Low risk for Utility • Permanent water 	<ul style="list-style-type: none"> • legalise re-sale • control tariff setting
B1. Free public taps, maintained by Water Utility	<ul style="list-style-type: none"> • Risk of damage • Not sustainable 	<ul style="list-style-type: none"> • Low operational cost • Permanent water 	<ul style="list-style-type: none"> • social cohesion and control • community responsibility • indirect cost recovery policy
B2. Public taps with care-taker from Water Utility	<ul style="list-style-type: none"> • High salary • No social responsibility • Intermittent • Care-taker will show "clerk's" attitude 	<ul style="list-style-type: none"> • Professional • Clear desk for complaints • Assured salary for care-taker 	<ul style="list-style-type: none"> • try to reduce salary costs • contract care-taker from area of water point • Some community control over care-taker
C1. Free public taps, maintained by community	<ul style="list-style-type: none"> • No payment incentive • No direct payment to Utility 	<ul style="list-style-type: none"> • Low operational costs • Permanent water 	<ul style="list-style-type: none"> • social cohesion and control • community responsibility • indirect cost recovery policy
C2. Public taps with voluntary care-takers controlled by community (Water Committee)	<ul style="list-style-type: none"> • Dependent on willingness volunteers (long term risk) • No remuneration 	<ul style="list-style-type: none"> • Low cost • Creation of idea of ownership • Payment to Water Utility • Involvement women 	<ul style="list-style-type: none"> • social cohesion and control • (Obs: fee can be collected by care-taker or Committee)
C3. Public taps with care-taker(s) employed by community	<ul style="list-style-type: none"> • High 'salary' costs • Little authority of care-taker • Intermittent • Income dependent on volume of water • Lengthy work days • Risk mismanagement 	<ul style="list-style-type: none"> • Community managed • Payment to Water Utility • Good control over care-takers • Intensive supervision 	<ul style="list-style-type: none"> • Sufficient water sold • Reliable Water Committee • (Obs: fee can be collected by care-taker or Committee)
D1. Semi-public tap, 'managed' by care-taker (or private organisation) with a temporary contract with Water Utility	<ul style="list-style-type: none"> • High 'salary' costs • Income dep. on volume of water • No control by community 	<ul style="list-style-type: none"> • Clear responsibilities • Competition requires high quality service 	<ul style="list-style-type: none"> • Temporary character of contract
D2. Semi-public tap, 'managed' by care-taker (or private organisation) with a temporary contract with Water Committee	<ul style="list-style-type: none"> • High 'salary' costs • Income dep. on volume of water 	<ul style="list-style-type: none"> • Control by community • clear responsibilities • Competition requires high quality service 	<ul style="list-style-type: none"> • Separate contract between Water C'tee and Water Utility • Temporary character of contract

5.3 Type of privatisation at public taps

For the exploitation of a water point one has the following 'privatisation' options:

- **No privatisation:** the Water Service Provider pays the caretaker. A certain degree of community control by a water committee is recommended, but in that case, the water committee should have a certain respected status and function in relation to the caretaker and/or the Water Provider. See also case 3.
- **Billing service** and control on use by a Water Committee. This situation is found in most of the 'mixed' systems. The caretaker, who falls under a Water Committee (private) or a commercial private company, does the billing and control. In some cases, the Water Committee or a Private Company is collecting the revenues and paying the 'contracted' caretaker. In Mozambique, it was found that most of the Water Committees were very dependent on the Water Utility in regard to tariff setting. If the function of the Water Committee is limited to revenue collection and caretaker control, there is a risk that the idea that the Water Committee works on behalf of the community is vanishing. The Water Committee starts to see itself as a branch of the Water Utility and starts to claim remuneration for its board members, as occurred in the town of Nampula in Mozambique. Privatisation to 'private' caretakers was seen as the answer to this problem.

- Leasing or affermage will give a Water Committee, a commercial company or a private caretaker more responsibility for the property, and mostly, the private organisation behaves itself quite independent of the Water Utility. Leasing has the advantage that it is temporary, which gives the Water Utility the possibility for control. Therefore, leasing contracts can be very short (some months to 1 year). The leasing agency can have service contracts with third parties, if required. The difference between affermage and leasing is small. With leasing, the leasing organisation has to do the minor repairs itself. With affermage, a broken bibcock might have to be replaced by the Water Utility.
- A concession contract can be applied for a single stand post or for several stand posts. In this case, the company or the Water Committee gets the concession for a certain area, where it may construct public water points (or even make a full distribution network). This gives the private organisation the possibility to develop its own policy and comes closest to community ownership. In case of a private commercial company, a concession gives the problem of monopolisation, if tariff setting is not regulated. A concession for public taps only has the disadvantage, that the financial feasibility can be largely influenced by the development of house connections in the vicinity of the public tap. Hence, it is recommendable to give concessions for certain areas.
- Full privatisation has the advantage that the infrastructure always remains the ownership of the private organisation. However, it has limited flexibility to respond to political changes. Ownership may be nationalised or competition may reduce the margin of profit on the investment. For the consumers, the risk of privatisation by a commercial company is monopolisation.

6. MONITORING

Monitoring is an essential instrument for authorities and management to follow the developments and to compare them with the original plans. For the provision of water services, monitoring should be at several levels:

- regulation and policy development
- implementation of the policy at implementation level
- organisational development of the water provider
- output of the water services provision

To enable monitoring, it is essential that objectives, targets, time planning and deadlines, and allocated resources are defined. Monitoring is not done by a global survey to see if everything is all right, but uses quantitative information, which is compared to the original plans. Hence, it is heavily dependent on the so-called management information system. Monitoring differs from an evaluation in that an evaluation is adding the impacts as a subject of analysis.

6.1 Monitoring the management of Water User Associations

WAMAS in Kenya has contracts with Water User Associations, in which they do a 2-monthly monitoring. During the monitoring, WAMAS found the following aspects to be relevant:

- **Organisation**
 - Elections, - paying particular attention to length of term in office, geographical and gender representation as may be stipulated in the constitution
 - Holding of management committee, executive committee and the annual general meeting in time as stipulated in the constitution
 - Recruitment of suitable staff and job descriptions as the scheme resources may allow. Staff performance and supervision by the Scheme Committee.
 - Introducing new management committees and scheme staff to be adequately trained to take up the new responsibilities.
- **Technical Management:**
 - Proper Operations and Maintenance of scheme facilities at the intake, treatment plant (if any), distribution system, storage system, reticulation and off-take points.
 - Proper maintenance of records on daily line patrolling and services in the production and distribution systems, regularly checking for possible illegal connections and leakage leading to water losses.
 - Proper maintenance of stores and store records detailing the movement of equipment and materials.
- In **Financial Management** care must be given to ensure that there is proper accountability and transparency bearing in mind that this is the single aspect most prone to abuse. All aspects of financial management must be carefully monitored.
 - Meters are read in the specified time and the readings correctly translated into bills.
 - Bills are prepared at times stipulated and despatched to the consumers.
 - All revenue due is collected including water rates, reconnection charges, fines, donations, etc.
 - All revenue collected is deposited in the bank before it is used.
 - Revenue used at the scheme is budgeted for. The budget and the balance sheet are read to the Annual General Meeting every year, approved and adopted.

- Extra care should be taken to ensure that expenditures are properly monitored, Committee allowances, awarding contracts, payment of salaries and wages are areas where money is usually misappropriated.

6.2 Monitoring of water service provision

When looking into the organisational development and the output of the water services provision, one may have a look at the following list of parameters.

performance parameters Water Service Provision

- Organisational indicators
 - legitimacy (acceptance)
 - effectiveness (e.g. coverage)
 - efficiency (e.g. staff per 1000 connections)
 - suitability
 - continuity/sustainability (accounted for water; water losses)
 - flexibility
 - consumer orientation
 - transparency in regard to financial situation (e.g. presentation of audited annual reports)
 - number of consumer complaints and percentage treated
 - existence of water rights and licence for service provision
 - existence of constitution and acting accordingly (frequency meetings; re-elections etc.)
 - existence of up-dated register of clients and connections
 - appropriateness payment records
 - quality of records (operations, stores, breakage and repairs, meter reading etc.)
- Technical indicators for water supply:
 - part of population served at which service level
 - quality of delivered water
 - continuity of the supply
 - ability to provide adequate service during peak hours in peak season
 - extend of interruptions in service (frequency and duration)
 - time required for repairs
 - part metered
 - percentage of operating meters
 - adequacy of public taps (persons per tap; waiting time; distances; drainage)
 - percentage water losses
 - extent of enteric diseases in the area
 - per capita consumption for different service levels
- Financial indicators:
 - percentage of accounted for water
 - affordability of services provided
 - adequacy of revenue collection system
 - fairness of charges
 - break down operating costs (power, staff, materials etc.)
 - debt service
 - operating costs per customer served
 - accumulated capital

- liquidity
- User satisfaction

LITERATURE AND MOST RELEVANT REFERENCES

Abrams L.J. (1996) *Africa Sector Review Report*, Working Group on Water Supply and Sanitation Development in Africa of the Water Supply and Sanitation Collaborative Council

Alawni A.N. (1997) *Role of government, NGOs and private bodies*; in Proceedings WEDC Conference New Delhi 1997; pg 31-33

Bouman D., Nguenha S. and Mabota A.(1997a) *Water supply in peri-urban areas of Mozambique (an evaluation in 7 towns)*; study by SAWA

Bouman D. (1997b) *Final Report Makwale Group Water Supply Project/Tanzania*; ELCT Konde Diocese

Business Care Services (1994) *Report on the study made on autonomisation of Wanging'ombe Water Supply Project/Njombe District/Tanzania*; and

Business Care Services (199.) *Report on the study on autonomisation of Kiliwater/NE Tanzania*

Gidman P. et al (1995) *Public-private partnerships in urban infrastructure services*; Urban Management Programme Working Paper Series 4

IRC (1991) *Partners for Progress, an approach to sustainable piped water supplies*, Technical Paper Series No. 28

IRC (1999) *Small scale Independent Providers of W&S to the urban poor - Presentation Notes Exchange Day February 26 1999*, UNDP/World Bank W&S Program/Program for Learning and Capacity Building

Lovei L., Whittington D. (1991) *Rent seeking in Water Supply*; World Bank discussion paper INU 85

Lieshout R. van (1997) *Institutional assessment and strategic planning in the water and sanitation sector*; a SAWA report for internal use, only

MDF (1966) Course reader *Organisational Development for Advisors and Consultants/ODAC*; on SWOT strategy development

Mukhawana J.S. and Hukka J.J. (1996) *Sustainability of community water supplies*; in: Proceedings WEDC Conference Kampala 1996; pg 99-100

Parliament of RSA (1997) *Water Services Bill*; in: Government Gazette 23 May 1997)

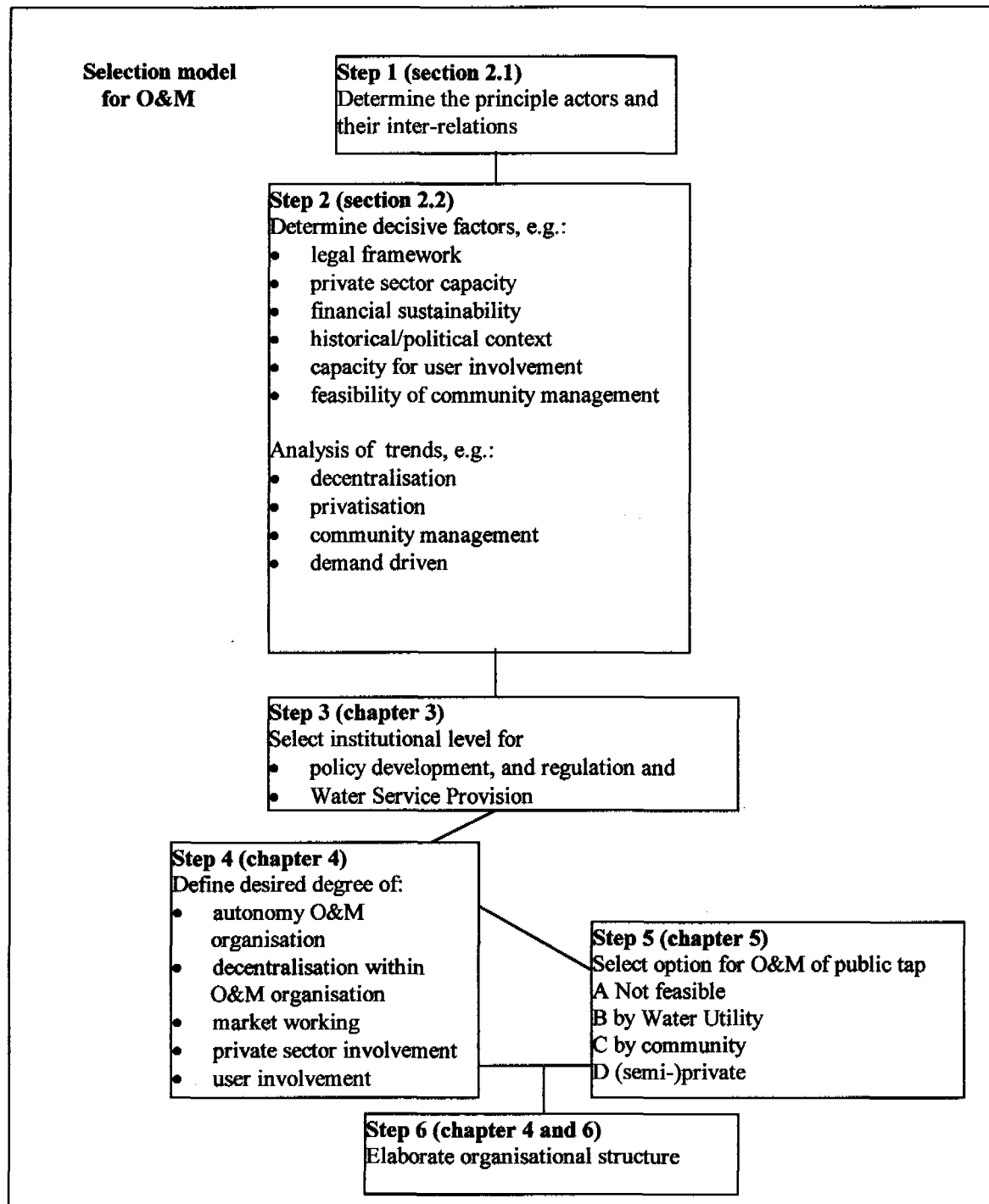
Phiri Z.(1997) *Community based approaches - the mythology*; in Proceedings WEDC Conference New Delhi 1997; pg 40-41

WAMAS (1997) *Management Services Manual for low performing and stalled community based water supplies*

WASH (1993a) *Designing and implementing decentralisation programs in the water and sanitation sector*; WASH Technical Report No. 89

WASH (1993b) *Preparing for private sector participation in the provision of water supply and sanitation services*; WASH Technical Report No. 84

Appendix 1: Manual for the selection of an institutional model for the operation of water schemes

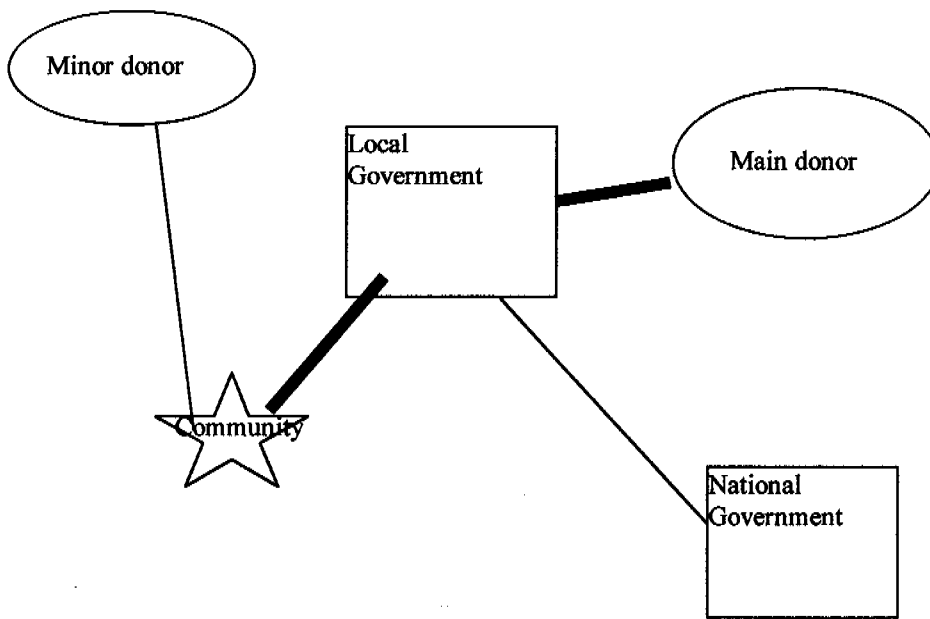


Step 1

Determine decisive actors and their inter-relationship

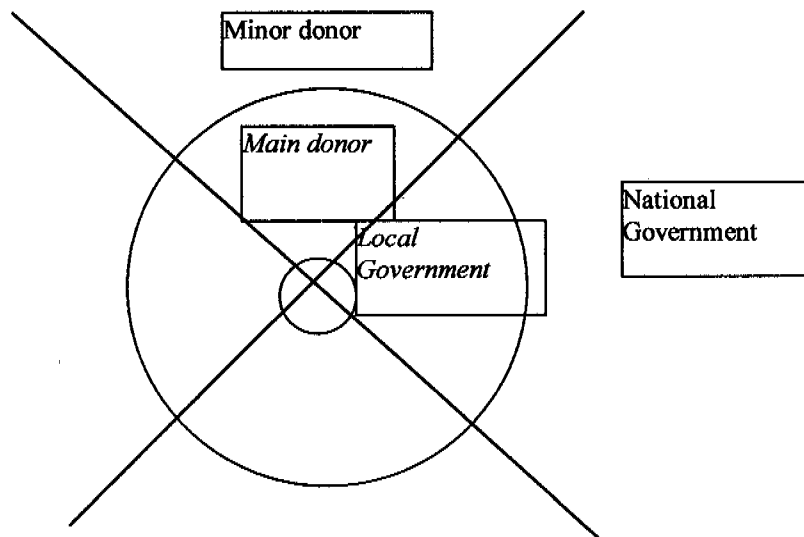
Suggestions:

1. Make an institutiogramme
 - distinguish different type of actors
 - distinguish different types of interrelationships



2. Environmental Scan

- distance reflects degree of influence
- italic is negative



Step 2a

Determine decisive factors, which determine the selection of institutional models.

Methods:

1. Make environmental scan for factors; using 4 fields (demand, supply, policy and co-operation)
2. Make a Strength/weakness Opportunities/threats analysis for internal and external factors
3. Make interviews with all actors
4. Use the check-list below

Check-list factor analysis

Factor	Supporting questions	Response
Legal framework	<ul style="list-style-type: none"> • Is there a Water Policy • Official policy in regard to organisation and user involvement • Official policy in regard to tariff setting and autonomy • Legal alternatives • Water rights • Ability to open bank accounts • Ability to get access to credits • Possibilities for tax exemption • Which type reflects best the objective? • Need for an external trustee? 	
Capacity of private sector	<ul style="list-style-type: none"> • Quality of work • Degree of competition • Protection of user rights 	
Financial sustainability	<ul style="list-style-type: none"> • Gives Law sufficient possibilities for full cost recovery; • If not, how can it be reached (subsidy system etc.) • Is technology adapted to ability to pay 	
User involvement during preparation and implementation	<ul style="list-style-type: none"> • 	
Historical/political context	<ul style="list-style-type: none"> • Acceptance towards community managed schemes • Acceptance to private enterprises • Degree of democracy in local structures • Strength of Authority 	
Recent trends	<ol style="list-style-type: none"> 1. Decentralisation 2. Privatisation 3. Community management 4. Demand driven 	

Step 2b

If community management is desired, the following factors are important to verify. Please give a mark and analyse the limiting factors whether a change is possible. Some factors may be irrelevant in certain circumstances.

Factor	Supporting question	poor strong
Strength of traditional community organisations	• history (positive experience)	1 2 3 4 5
	• social cohesion	1 2 3 4 5
	• consensus based leadership (democracy)	1 2 3 4 5
	• strong lines of communication	1 2 3 4 5
	• women involvement	1 2 3 4 5
	• no misappropriations	1 2 3 4 5 []
Active attitude/self-esteem	• no dependency syndrome	1 2 3 4 5
	• demonstration of initiatives	1 2 3 4 5 []
Potential for involvement of women	• in decision taking	1 2 3 4 5
	• in management of community activities	1 2 3 4 5 []
Acceptance of voluntary work	• for board membership	1 2 3 4 5
	• for health work	1 2 3 4 5
	• for care-takers	1 2 3 4 5 []
Skills on accounting and administration	• Degree of literacy	1 2 3 4 5
	• Experienced people	1 2 3 4 5 []
Basic technical skills	• masons	1 2 3 4 5
	• carpenters	1 2 3 4 5
	• metal work	1 2 3 4 5
	• others	1 2 3 4 5 []
Conditions for external staff	• salary conditions	1 2 3 4 5
	• living conditions	1 2 3 4 5
	• challenge	1 2 3 4 5 []
Degree to which water supply responds to felt need?	• responds to priority need	1 2 3 4 5
	• community aware of hygiene aspects	1 2 3 4 5
	• community willing to pay	1 2 3 4 5 []
Appropriateness of technology in relation to community's ability	• ease of operation	1 2 3 4 5
	• access to third parties for repairs	1 2 3 4 5
	• quality of skills of third parties	1 2 3 4 5
	• quality of government supervision	1 2 3 4 5 []
Availability of spare parts	• Degree of standardisation	1 2 3 4 5
	• Use of locally available materials	1 2 3 4 5
	• Preparedness of private comp to deal with spare parts	1 2 3 4 5 []
Potential for cost recovery	• Supporting legal framework	1 2 3 4 5
	• Willingness to pay (and service level)	1 2 3 4 5
	• Ability to pay (also in future)	1 2 3 4 5
	• Stable economy (low inflation/devaluation)	1 2 3 4 5
	• High degree of efficiency	1 2 3 4 5 []
Existence of a support organisation	• Authority or committed local NGO	1 2 3 4 5 []
Supportive legal framework	• Right to manage their own scheme	1 2 3 4 5
	• possibilities for registration	1 2 3 4 5
	• access to water rights	1 2 3 4 5
	• access to credits	1 2 3 4 5
	• protection of the poor	1 2 3 4 5 []
		[]

Judge from above table if full community management is possible and which aspects need further development.

Step 3a

Determine for the priority options the functions of regulation and policy (authority and at which level). Work out these functions in more details.

Main subject	subject	Nat	Reg	Mun	Provider
Policy making	<ul style="list-style-type: none"> • definition of the institutional and legal framework and selection from the above variables • definition of approaches • definition of social objectives • setting of broad targets • determination of service levels and price policy (may be decentralised) 				
Regulation and legislation	<ul style="list-style-type: none"> • setting standards • development of bylaws • establishment of fair competition guidelines for contracts • establishment of an enabling environment for private investment • enforcement of rules to contracted agencies • guarantee of transparency on financial aspects • guarantee the protection of water sources • protection of the environment • defence of user rights 				
Global planning	<ul style="list-style-type: none"> • 				
Public investments	<ul style="list-style-type: none"> • planning • negotiation of loans 				
Monitoring and supervision	<ul style="list-style-type: none"> • 				

Step 4a:

Come to Choices which will determine the selection of an organisational model (please refer to a Water Policy, if existent; and reflect on the above factors). Choices can be prepared by one actor, but should be discussed in a participatory workshop with all stakeholders. Determine the level, which has to assume responsibility.

<i>Issue</i>	<i>Sub-issues</i>	<i>Low..High</i> <i>12345</i>	
Degree of autonomy of O&M organisation	<ul style="list-style-type: none"> • institutional model • organisational structure • financial autonomy • limiting rules 		
Degree of desired decentralisation within O&M organisation	<ul style="list-style-type: none"> • which aspects to be covered by central unit • which aspects can be contracted out 		
Degree of desired market working	<ul style="list-style-type: none"> • tariff control • competition within geogr. area • competition in time 		
Degree of desired private sector involvement	<ul style="list-style-type: none"> • level of privatisation (service; management; affermage, leasing, concession, full privatisation) • desired means of control 		
Degree of desired user involvement (see step 1a)	<ul style="list-style-type: none"> • 		

Step 4b

Describe in words the priority option and 2 other options, which are second best. Detail the level of privatisation and the type of community involvement. Present these conclusions in a workshop to all stakeholders.

Step 4c

Describe the best fitting legal options for privatisation and community ownership/management

Step 5:

Determine the policy in regard to the operation of public taps. A working group may make a first selection, but the consumer groups around each tap should make the final selection.

Determination questions for first selection:

1. Is there really a need for public tap (if no: choose A; if yes: go to question 2)
2. Is the control by a care-taker not essential and is social control sufficiently guaranteed (if yes: go to question 3; if no: go to question 4)
3. Can community assume responsibility for the supervision/management of tap (if yes: choose C1; if no: choose B1)
4. Can the caretaker function be done in a voluntary (un-paid) way and will community assume responsibility? (if yes: choose C2; if no: go to question 5).
5. Will the payment of a salary be a too high burden for the community? (If yes: re-analyse the above options or analyse possibilities for cost savings on salary (more users per water point); if no: continue with question 6)
6. Is the community willing and capable to assume responsibility for management? (If yes: go to question 7; if no: go to question 8)
7. Is 'management' by a private caretaker not more or only little more expensive than employment of a caretaker and does the community accept private management? (if yes: choose option D2; if no choose option C3)
8. Is 'management' by a private caretaker not more or only little more expensive than employment of a caretaker by the community and does the community accept private management? (if yes: choose option D2; if no choose option B2)

OPTIONS	Disadvantages	Advantages	Conditions
A. No public taps; provision of water to private connections in all areas	<ul style="list-style-type: none"> • High investment 	<ul style="list-style-type: none"> • Long term • Low operational cost • Low risk for Utility • Permanent water 	<ul style="list-style-type: none"> • legalise re-sale • control tariff setting
B1. Free public taps, maintained by Water Utility	<ul style="list-style-type: none"> • Risk of damage • Not sustainable 	<ul style="list-style-type: none"> • Low operational cost • Permanent water 	<ul style="list-style-type: none"> • social cohesion and control • community responsibility • indirect cost recovery policy
B2. Public taps with care-taker from Water Utility	<ul style="list-style-type: none"> • High salary • No social responsibility • Time limitation • Care-taker will show "clerk's" attitude 	<ul style="list-style-type: none"> • Professional • Clear desk for complaints • Assured salary for care-taker 	<ul style="list-style-type: none"> • try to reduce salary cost • contract care-taker from area of water point • Some community control over care-taker
C1. Free public taps, maintained by community	<ul style="list-style-type: none"> • No payment incentive • No direct payment to Utility 	<ul style="list-style-type: none"> • Low operational costs • Permanent water 	<ul style="list-style-type: none"> • social cohesion and control • community responsibility • indirect cost recovery policy
C2. Public taps with voluntary care-takers controlled by community (Water Committee)	<ul style="list-style-type: none"> • Dependent on willingness volunteers (long term risk) • No remuneration 	<ul style="list-style-type: none"> • Low cost • Creation of idea of ownership • Payment to Water Utility • Involvement women 	<ul style="list-style-type: none"> • social cohesion and control • (Obs: fee can be collected by care-taker or Committee)
C3. Public taps with care-taker(s) employed by community	<ul style="list-style-type: none"> • High 'salary' costs • Little authority of care-taker • Income dependent on volume of water • Lengthy work days 	<ul style="list-style-type: none"> • Community managed • Payment to Water Utility • Good control over care-takers • Intensive supervision • Risk mismanagement 	<ul style="list-style-type: none"> • Sufficient water sold • Reliable Water Committee • (Obs: fee can be collected by care-taker or Committee)
D1. Semi-public tap, 'managed' by care-taker (or private organisation) with a temporary contract with Water Utility	<ul style="list-style-type: none"> • High 'salary' costs • Income dep. on volume of water • No control by community 	<ul style="list-style-type: none"> • Clear responsibilities • Competition requires high quality service 	<ul style="list-style-type: none"> • Temporary character of contract
D2. Semi-public tap, 'managed' by care-taker (or private organisation) with a temporary contract with Water Committee	<ul style="list-style-type: none"> • High 'salary' costs • Income dep. on volume of water 	<ul style="list-style-type: none"> • Control by community • clear responsibilities • Competition requires high quality service 	<ul style="list-style-type: none"> • Separate contract between Water C'tee and Water Utility • Temporary character of contract

Step 5b

If community based management of public taps is chosen (options C1-C3; D2), the constitution of the Water Committee and the relationship client/user - Committee should be established.

Step 5c

Determine training needs at community level if a community management option is selected (C1, C2, C3 or D2).

Check-list:

	Hygiene and water use	Communication	Leadership	Financial management	Administrative management		Technical service
Full Committee							
Chairman							
Secretary							
Treasurer							
Care-taker/operator							

Step 5d

Elaborate all other required contracts between Water Utility, Water Committee, Care-taker(s), Private caretakers etc.

Step 6a:

Elaborate organisational structure of Water Service Provider

1. Define the mission of the organisation
2. Define long term, medium term and short-term objectives
3. Define targets
4. Make a distinction between the management/decision levels and the operational levels

For the over-all management:

5. Determine the required management style
6. Set-up a management model, which gives sufficient possibilities for consumer involvement, especially in consumer owned systems and define the mandate of each level
7. Make a division of tasks between the over-all management of the board and the day-to-day management of the Operational Unit

For the operational level:

8. Determine key operational functions from 1, 2 and 3
9. Make a draft set-up of the most logical units (geographical or professional)
10. Attribute the aspects below to the different units or the overall management

	Over-all management	Day-to-day management	Unit 1	Unit 2	Unit 3
<ul style="list-style-type: none"> • planning: physical, economic (e.g. tariff setting), organisational, and control • design and construction • operation <ul style="list-style-type: none"> • W&S operation and • maintenance of installations and equipment • commercial: <ul style="list-style-type: none"> • invoicing and revenue collection; metering; consumer registration and • marketing • external social communication: <ul style="list-style-type: none"> • hygiene education; • promotion of community involvement; • information; • complaints treatment • human resources (staffing, human resource development and training; safety measures) • administration (financial administration and accounting, staff administration, supplies administration, asset administration, transport administration, complaints registration) • internal management: <ul style="list-style-type: none"> • staff and board meetings • management information and • over-all monitoring • external relations 					

11. Revise the different units and management structure if required and define the decision taking structure
12. Define lines of communication
13. Define staff requirements
14. Define job descriptions for staff and task descriptions for management/board members
15. Establish the need for human, physical and financial resources
16. Determine the need for external guidance, financial support and training
17. Determine the risks/constraints (motivation, salary conditions, skills etc.) and how these constraints can be overcome.

Step 6b:

Work out in more detail how client -orientation can be guaranteed.

examples:

- to work in a demand oriented way (to provide the service required against real costs)
- to be visible to the consumers (pictogram, name, known office)
- to be accessible for complaints
- to have procedures for complaints
- to have statistics on complaints and what has been done with it
- to give education on water use, hygiene, and environmental protection (e.g. at schools)
- to provide regular information
- to be transparent in the use of funds (annual publication)

Step 6c:

Work out in more detail, how the following items should be regulated:

Minimum service guarantee for everybody	minimum provision who makes investment own contribution how cost recovery	
Tariff setting	by who; which determining factors	
Consumer involvement	in decision taking in marketing complaint procedures	
Obligated provision of data	water quality service level coverage major repairs financial report	
Internal control		
External control	authority user involvement	

(Step 7)

Further actions:

- (develop national water policy)
- elaborate model by-laws
- elaborate model constitution water user association
- elaborate model for improved consumer involvement in Water Utility
- elaborate model water provision contract between provider and client

APPENDIX 2 *Example of a Constitution (By-laws)*

The following example of a constitution is a modified version of a constitution, developed by WAMAS (1997) for a community managed water scheme in Kenya, where the constitution has got the name "by-laws". A water law expert has written it within the legal framework of Kenya.

A comprehensive constitution should cover the following aspects of management:

- 1 Act under which the organisation/scheme is registered.
- 2 Name of organisation
- 3 Address
- 4 Interpretation of water supply service area and terms
- 5 Objectives
- 6 Membership: Eligibility and Contributions
Termination
- 7 Sources of funds
- 8 Composition of the: Management Committee.
Executive Committee
- 9 Specification of duties of the
 - . Executive committee
 - . Management committee
 - . Chairman
 - . Secretary
 - . Treasurer
- 10 Length of term of 'office'
- 11 Elections of committee members
- 12 Employee types and duty specifications
- 13 Description of General Meetings i.e. frequency, purpose, powers etc.
- 14 Operational Rules
- 15 Procurement procedures
- 16 Auditing and Auditors
- 17 Existence of other regulations and forms
- 18 General Rules
- 19 Signature

EXAMPLE OF A CONSTITUTION (under Kenyan law)

_____ Water Management Organisation

The organisation is registered as a Water Management Group (Self-Help Group) with Social Services Department of the Ministry of Culture and Social Services no _____. District Registration Number is _____ issued on _____ and has applied for/has a water permit from Water Apportionment Board.

Part 1. Name

1. The name of the Organisation shall be: _____ **Self Help Group**, hereafter referred to as **WMG** (Water Management Group).

Part 2. Address

2. The address for the time being shall be: _____, Kenya.

Part 3. Interpretation

3. In this Constitution, unless the context otherwise requires:

- a) "Water supply" shall mean _____ water supply scheme
- b) "Supply Area" shall mean the area scheduled to receive water supplies through the water supply in accordance with the drawings and marked boundaries. It will include the following zones:
 - i) _____
 - ii) _____
 - iii) _____
 - iv) _____
 - v) _____
 - vi) _____
 - vii) _____
- c) The following schemes/provisions fall under the reach of the WMG:
 - i) _____
 - ii) _____
 - iii) _____
 - iv) _____
- d) "Residents" shall mean inhabitants of the Supply Area.

Part 4. Objectives

- 4 The objectives for which the WMG is established are to improve the health and living standards of residents in the Supply Area in accordance with Self-Help principles through provision of (metered) piped water through the Supply Area and the assistance in improved sanitation; in particular to:
 - a) Construct or rehabilitate boreholes, storage tanks, break-pressure tanks, main pipelines, water kiosks, and other infrastructure necessary to deliver water to the Supply Area in accordance with the plans;

- b) Ensure that water supply is made available to all residents of the Supply Area on an equitable basis as and when adequate water supply is available.
- c) Ensure that systems and procedures are established and maintained for on-going operations and maintenance of the water supply for the continued delivery to the residents (after the water supply has come into operation).
- d) Assist individuals and institutions in the Supply Area with the improvement of sanitary facilities
- e) Ensure the protection of the Water Sources in the Supply Area, especially the one(s) supplying the water scheme(s) with water

The WMG will follow democratic principles and underwrites the principles of a self-help approach and the importance of equity of women in the development and management of the water schemes

5. To achieve the objectives set out under Act 4, the WMG may perform and carry out such functions of a water supply as are permitted under the Laws of Kenya and may, in particular:
- a) Raise funds in cash and/or in kind through personal contributions, or through Harambee for the establishment and furtherance of its objectives
 - b) Negotiate and enter into contracts with any person, corporation or institution for hiring of labour or for the acquisition of land, materials or equipment in pursuance of the objectives
 - c) Employ or engage such technical and administrative staff, labour and services as shall be necessary for establishing and maximising the efficient maintenance of the water supply, sanitation and source protection
 - d) Secure permits and licences from relevant authorities as necessary for the establishment and operation of the water supply and the protection of water sources

Part 5. Membership, rights, obligations and operational rules

6. Eligibility
Membership will be open to:
- a) Individuals/registered inhabitants above 17 years old,
 - b) Property owners within the supply area
 - c) Communal Institutions such as schools, hospitals, and churches.
- on condition that they have paid their initial contribution (in cash, labour or kind) and their water fee in line with the regulations.
7. Upon payment of appropriate membership fee, the member is entitled to all rights and privileges of membership and likewise assumes the responsibilities of membership as laid down in this Constitution
8. Membership of the Water supply shall cease with effect from date a member:
- a) Ceases to hold qualifications for membership in Acts 6(a), (b) or (c), whichever is applicable;
 - b) is expelled from the Water Supply, in accordance with Act 8 of this Constitution;
 - c) Voluntarily withdraws from the water supply.
9. A member may be suspended from membership by the Management Committee pending final decision on expulsion by the General Meeting for one or more of the following reasons:
- a) Any action which in the opinion of the Committee is adjudged prejudicial to the WMG and the spirit of Self-Help;
 - b) Any action against the safety of water supply and protection of water sources and their catchment (e.g. bush fires)
 - c) Repeated failure to comply with the regulations of the WMG made under this Constitution;

- d) Any debt liability by the member to the WMG for services rendered by the WMG outstanding for over sixty days;

A member under suspension will cease to enjoy water supply and any other rights accruing to membership until the matter is determined by the General Meeting.

Notwithstanding the provisions of sub-section (a), (b), and (c) of this Act, a member under suspension will have the right to appeal to the General Meeting against such suspension.

10. The individual connection of an expelled member will be disconnected. For illegal connections, a fine is established by the WMG. Re-connection can only be done after fulfilling all the (outstanding) obligations, stipulated by the WMG, for which a reconnection fee is applied
11. *Contributions.*
Member's contributions and fees, which will be non-refundable, will be reviewed by the supply from time to time and may include the following:
- a) Registration fee
 - b) Rehabilitation fee
 - c) Monthly/annual fee or Water fee (for sale at kiosk)
 - d) Monthly/annual fee or Water fee (for sale to individuals or institutions)
 - e) Communal labour fee
12. Rates will be adjusted, annually, and will be proposed by the Management Committee to the General Meeting, which has to approve them. For the establishment of rates, advice will be obtained from a qualified Water Engineer who will determine on behalf of the Management Committee the cost of production, distribution, operations, and maintenance so that the water tariff will be based
13. *Water distribution*
- a) Water will be distributed through
 - i) Kiosks and/or public taps
 - ii) Individual Connections (Private and Institutional)
 - b) Kiosk Services
 - i) Only members will be eligible to get services at water kiosks and public taps, no water will be sold to non-members whatsoever. All kiosk members will be listed on a kiosk Register.
 - ii) Some kiosk will be licensed by the Management Committee to sell water to non-members at an established rate, e.g. at public places like markets, bars, etc.
 - c) Individual connections
 - i) Individual connection will mean unshared connection to households, Institutions, Industries and Business.
 - ii) In addition to contributions made under Act 6, members will pay deposits and costs of material for water connection at prices prevailing at the time of connection to cover the following items:
 - Water meter
 - Meter box
 - Connection fittings
 - Water connection labour fee
 - Water deposit
 - iii) For the sale of water to third parties, the member needs a license from the Management Committee, and the applied sale price may be not above 25% of the rate, applied by the WMG

14. All members wishing to own individual connections will be required to apply for individual connection by completing an official application form. Application forms will be obtainable from the supply office on payment of a non-refundable fee
All applications shall be put before the Management Committee, which may admit or reject any application without assigning any reason thereof. Where an application is successful, the secretary of the water supply will send to the applicant a letter of offer stipulating among other things, member's contributions and fees in accordance with By-law 7 of these by-laws. Full acceptance of application will be conditional upon full compliance with the requirements contained in the letter of offer.
On acceptance of application of the Water connection, the secretary of the WMG shall cause each member to sign the letter of offer and the Individual Connections Register, which act shall constitute an acceptance by the member of the binding nature of the Constitution of the WMG.
15. Supply and installation of lateral piping from main pipeline to member's plot is the responsibility of the concerned member after having obtained a formal approval
All connections must be made by WMG technical staff.
16. Each member with an individual connection will make a refundable deposit before connection is made. Deposit amounts required for each type of membership shall be provisionally set by the Management Committee and confirmed by the General Meeting.
17. Water consumption will be restricted mainly to domestic consumption (human consumption, cleaning and hygiene) and livestock, authorised commercial and institutional uses.
18. Any owner of individual connection ceasing to be a member for reasons other than expulsion may be repaid, after deduction of any debts owed by the member to the WMG, any deposit or sum held by the WMG on the member's behalf.
19. Any owner of an individual connection expelled from the Water Supply shall forfeit any deposits to the WMG.

Part 6. Funds and assets

20. The WMG is entitled to receive and manage:
 - a) Fees, charges and deposits obtained from members and non members (see Act 10)
 - b) Funds received from donors or raised on self-help basis.
 - c) Funds generated through the operations of the Water Supply.
 - d) Funds generated from bank interests
 - e) Loans from third parties
21. The funds of the WMG may be applied to the promotion of the objectives of the WMG. Funds may not be distributed among members.
22. The WMG shall have at central level at least one general savings account and one operational account. All received money is transmitted to the savings account, from where it is (partly) re-distributed to the operational account of the WMG and the operational accounts at scheme or village level.
23. All assets of the WMG (schemes, tools, installations, buildings and transport) are the property of the WMG

Part 7. Organisational set-up

24. The WMG is constituted of the following organisational units:
- General Meeting
 - Management Committee
 - Executive Committee
 - Scheme Management Committees
 - Village Water Committees or Zonal Committees

General Meeting.

25. The supreme authority of the WMG shall rest in the General Meeting of members, which shall be held once annually, or on such other occasions as may be deemed necessary in accordance with this Constitution.
26. The annual General Meeting shall be held every year within one calendar month of the receipt of the final accounts by the secretary. A special General Meeting shall be held when convened by the Management Committee or within fourteen days of receipt by the Secretary of a written demand from 100 members or one half the total membership whichever is the less.
27. Notice of annual or special General Meeting shall be given not less than twenty-one days prior to the day on which the meeting is proposed and such notice shall include a statement of the items of business to be transacted, and the time and the place of the meeting. No business shall be transacted unless included in the notice calling the meeting.
28. The presence of 1/10 of the members shall constitute a quorum. In the absence of a quorum the chairperson shall adjourn the meeting and shall fix a date within one month to reconvene the meeting and notice shall be given as required in the By-law.
29. The following business may only be transacted in a general meeting.
- a) amendment of the name, the Constitution or enactment of new Acts.
 - b) making or amending rules in furtherance of the objects of the water supply for;
 - i) regulating authorised use of water,
 - ii) restricting the unauthorised use of water,
 - iii) the levy of fines and penalties,
 - c) election, suspension and removal of members of the Management Committee,
 - d) confirmation or otherwise of the action of the Management Committee in accepting, refusing, suspending or exempting members;
 - e) consideration of the annual statement of accounts and balance sheet and of the auditor's report;
 - f) approval of the fees and charges
 - g) consideration of the annual report of the Management Committee;
 - h) appointment of auditor;
 - i) such other business as may be relevant or necessary and which is included in the notice of the meeting.

Management Committee and Executive Committee

30. The Management Committee shall manage the daily affairs of the WMG. It shall consist of _____ members elected from all zones and schemes.
- a) Each such zone shall elect members, making sure there is fair gender representation. The election will be subject to ratification at an annual General Meeting of the Water Supply members;
 - b) A member of the Management Committee shall at least be 21 years of age and not an employee of the WMG

- c) The Management Committee may appoint from among its members an Executive Committee comprising the Honorary Chairperson, the Honorary Vice-Chairperson, the Honorary Secretary, the Honorary Treasurer, and not more than any other two members. If appointed, the Executive Committee shall be responsible for the day-to-day conduct of the affairs of the Water Supply provided, however that it will report and ask approval of the Management Committee at its monthly meetings and at such other times as may be required by the Management Committee
31. The chairperson of the Executive Committee shall be the chairperson of the Management Committee.
32. The Management Committee may co-opt non-voting members as may be required.
33. The Management Committee shall permit access to its sessions by the representative of any donor of capital funds to the WMG, for the purpose of listening to and advising with respect of the business of the water supply.
34. Members of the Management Committee shall be elected for 1 year and shall be eligible for re-election.
35. The Executive Committee members shall be eligible for election provided; that they shall be:
 - a) literate at least up to standard eight level
 - b) a member
 - c) without criminal conviction involving dishonesty;
 - d) without any debt older than 30 days owing to the WMG
36. Duties of Honorary Chairperson:
 - a) to chair Management Committee meetings
 - b) to chair Executive Committee meetings.
37. The duties of the Honorary Secretary shall be to:
 - a) ensure that the WMG's correspondence is correctly attended to;
 - b) ensure the recording of minutes of Committees and General Meeting;
 - c) keep WMG's seal under lock and key. The seal shall be used only by and in the presence of all the officers authorised to sign on behalf of the WMG
38. The duties of the Honorary Treasurer shall be to:
 - a) check all payments and sign all vouchers;
 - b) keep a general surveillance of the money management of the WMG
39. Authority to sign:
 - a) Unless decided otherwise by the General Meeting, all documents and contracts shall be signed on behalf of the WMG by the Chairperson and two of the holders of the following offices: the Vice-Chairperson, the Honorary Secretary, or the Honorary Treasurer. No contract shall be binding on the WMG unless so signed, having approved earlier by a minute of the Management Committee.
 - b) all cheques must be signed by the Honorary Treasurer and any other two Executive Committee members.
40. A member of the Management Committee shall cease to hold office if he/she:-
 - a) ceases to be a member of the WMG;
 - b) applies for insolvency or is declared insolvent;
 - c) becomes certified of unsound mind;

- d) is convicted of any criminal offence involving dishonesty or is imprisoned for three months or more;
 - e) is removed from office at a General Meeting;
 - f) absents himself/herself from three consecutive meetings without reasonable excuse, or the prior permission of the chairman of the Management Committee,
41. Meetings of the Management Committee shall be held regularly once a month, and at any other time when necessary. Sixty six percent of the members shall form a quorum provided that at least two of them will be Executive Committee members.
42. The Management Committee shall exercise all the powers of the WMG except those reserved for the General Meeting subject to any regulations duly laid down by the WMG in its General Meeting or in this Constitution, and in particular shall have the following powers and duties:
- a) to regulate, control, plan and administer the Management of the WMG;
 - b) to consider and approve or reject applications for membership;
 - c) to prepare for the General Meeting an annual report of the WMG on the activities and circumstances in the Supply Area within 3 months after conclusion of the year
 - d) to prepare for the General Meeting a programme of establishment and/or operation of the water supply;
 - e) to prepare annually for the General meeting an estimate of expenditure for the financial year next following the General Meeting;
 - f) to recommend for adoption by the General Meeting the rates to be charged against the services provided to members of the WMG, sufficient to cover all liabilities and obligations both outstanding and anticipated for the financial year next following the General Meeting.
 - g) to submit to the General Meeting proposals for the disposal of any surplus over normal reserve funds, at the end of the financial year and in particular such proposals may include provision for:
 - i) expansion of or improvements to the water supply,
 - ii) extension of services;
 - iii) and any other purpose determined by resolution.
 - h) to prepare and lay before the General Meeting accounts and balance sheets duly audited, provided that these shall be prepared within a period of not more than six months after the close of the financial year;
 - i) to determine the labour value of work done by members at rates approved by the Community Development Department and to cause an account to be kept of the same;
 - j) to maintain or cause to be maintained a true account of all the moneys received and expected and a record wherein members' labour contributions are clearly recorded;
 - k) to keep or cause to be kept a true account of the assets and liabilities of the Water Supply;
 - l) to prepare or cause to be prepared monthly balance sheet, trial balance, income and expenditure accounts and debtors and creditors accounts for the guidance of the Management Committee;
 - m) to examine or cause to be examined the accounts, to sanction contingent expenditure and to supervise or cause to be supervised the maintenance of all books of account;
 - n) to review monthly all the accounts;
 - o) to take such action as necessary to meet all obligations to creditors within a period not exceeding three months of the incurring of a debt;

- p) to proceed against any debtor whose obligation shall be in existence for a period in excess of sixty days;
 - q) to assess and authorise the employment of employees as shall be requisite for the achievement of the objectives of the Water Supply;
 - r) to appoint suspend or dismiss any paid servant of the Water Supply and to regulate and supervise their work;
 - s) to supervise the maintenance of a Register of Members;
 - t) to consider the reports of the Ministry of Land Reclamation, Regional and Water Development, the Department of Community Development, any other agency supporting the scheme and to take action on such reports;
 - u) to enter into contracts and to execute documents in furtherance of the objects of the WMG;
 - v) to convene meetings;
 - w) to co-opt members to fill vacancies on the committee;
 - x) to impose fines or penalties in accordance with the rules.
 - y) to determine and authorise petty cash limits for the paid staff.
43. All business discussed or decided at a General Meeting shall be recorded without erasures in a Minute Book which one week after the Meeting shall be signed by the Chairperson of the meeting and at least one other Management Committee Member who was present at the meeting to indicate that in their opinion the record of all important matters which were discussed or decided at the Meeting.
At the next meeting after approving any alterations or variations which shall be immediately written below the above signatures and not as alterations to the original record, the meeting shall by resolution, authorise its chairperson to sign and date the final record.
44. The Treasurer shall make no payment in any form unless it has been authorised, admitted and confirmed by the Management Committee.
45. No expenditure shall be authorised by the Committee unless and until formally provided for in a budget approved at an Annual General Meeting, provided, however, that a special General Meeting may be convened to make supplementary estimates.

Scheme Committees and Village Water Committees

- 46 The General Meeting has the right to introduce Water Committees at Village, Scheme or Zone level. The rights and responsibilities of these Water Committees will be regulated in a separate document.

Part 8. Hiring of Scheme Staff

47. The Management Committee is entitled to hire staff to perform various duties including the daily technical operations and maintenance, water production, distribution, sales and record keeping. The number and category of such staff will depend on amount of work and funds available to the WMG. It shall, however, at least include a Principle Scheme Manager whose duties are described below.

The duties of the Principle Scheme Manager shall include:

- a) to plan, organise and supervise the day-to-day operations of the water supply in accordance with the guidelines and policies set out by the Management Committee, the General Meeting and the Acts of the WMG;

- b) to keep the Management Committee informed of the water supply's performance and of problems, circumstances and conditions affecting the long-term and day-to-day operations of the Water Supply;
- c) to ensure the correct maintenance of all books of accounts, correspondences and records of the Water Supply;
- d) to provide the Management Committee with any information necessary to formulate policy in furtherance of the objectives of the Water Supply, interpret accounts, documents and records of the WMG;
- e) to assist the Management Committee analyse and interpret accounts, documents and records of the water supply;
- f) to ensure that all funds are properly accounted for, that all receipts are paid into the water supply's bank account and that at no time a sum exceeding the authorised petty cash limits is in his/her possession.
- g) to carry out such other duties as may be required by the Management Committee.

Part 11. Procurement Procedures.

- 48. Procurement may only be done through a special Procurement Committee, consisting of the treasurer, three non-executive members of the Management Committee and five members elected at a General Meeting. The Procurement Committee will appoint procurement executive members from among its members.
- 49. The Procurement Committee will seek all the necessary professional/competent advice to ensure that the goods and services recommended for procurement meet the highest standards at competitive prices.
- 50. All requisitions for goods and services will be submitted to the Procurement Committee and the procurement committee will submit its recommendations to the Management Committee for consideration and approval.

Part 12. Auditors

- 51. The financial year of the WMG will be from 1st July to 30th June.
- 52. A General Meeting shall appoint auditors and their duties shall be as follows:-
 - a) Ensure that all income and expenditure is properly accounted for and documented;
 - b) Ensure that all payments made are properly documented, authorised and for genuine expenses of the supply;
 - c) Ensure that all allowances, salaries and benefits are paid in accordance with this Constitution, rules and regulations of the supply;
 - d) Ensure that all water consumption is properly accounted for;
 - e) Ensure that proper books of accounts are maintained in accordance with the Constitution
 - f) check and verify stocks of materials and balances of all bank and savings accounts and cash;
 - g) Ensure that all imprests are properly authorised and accounted for;
 - h) Ensure that all debtors and creditors pay or are paid within a reasonable period of time and that no one is given unreasonable credit;
 - i) Ensure that all contracts given are in accordance with the Constitution
 - j) Ascertain where possible that no committee members or staff benefit unduly by giving of purchase orders or contracts;
 - k) If requested by members, to explain the audited accounts and balance sheet at the annual General Meeting.

- 53. A copy of the balance sheet and trade account, duly signed by the auditor and his report attached thereto shall be open to inspection of the members at the office of the WMG at least 14 days before the date fixed for the annual General Meeting.
- 54. The books of account and all documents relating thereto and a list of the members of the Water Supply shall be available for inspection by any officer or member at the office of the Water Supply during normal business hours or any working day.

Part 13. General

- 55. Any violation of the provisions of this Constitution, whether by members or non-members, will be dealt with in accordance with any fines and penalties laid down in this Constitution, and where applicable, the criminal code.
- 56. Any dispute arising out of this Constitution or concerning the business of the WMG which cannot be settled by the Management Committee or General Meeting shall be referred to the relevant authorities.
- 57. Apart from the Constitution, the WMG will have several Registrations and forms. In case of conflicting texts, the Constitution has the highest value.
- 58. By the Secretary and shall be used only by and in presence of all the officers authorised to sign on behalf of the WMG
- 59. Annual returns shall be submitted to the Registrar of Societies and all accounts and Members Register shall be available for inspection by the Members or any other organisations or office supporting the WMG.
- 60. The WMG may be dissolved by resolution passed at the annual General Meeting by a two-thirds (2/3) majority.
- 61. If the WMG is dissolved by member's resolution, the assets will be valued by a reputable valuer and disposed of to offset any outstanding liabilities. If a surplus remains after discharging all liabilities, the surplus will be made over to any Project having similar objectives, or failing that, be applied to some charitable purpose approved by a simple majority of members at a General Meeting. No part of the funds or property of the WMG shall at any one time be distributed among the members.
- 62. If the WMG is dissolved by cancellation of its registration by the Ministry of Culture and Social Services the disposal of its assets will be carried out in accordance with the provisions of this Constitution.
- 63. A two-thirds (2/3) majority at a General Meeting at which such amendment is properly on the agenda may amend this Constitution or the name of the WMG.

CHAIRPERSON; DATE.....

VICE-CHAIRPERSON; DATE.....

SECRETARY;..... DATE.....

TREASURER;..... DATE.....

Appendix 3 *Operational Rules and Regulations.*

Attached is an example of a modified version of regulations, developed by WAMAS (1997) for a community managed water scheme in Kenya, which links to the Constitution of Appendix 3. Simple Rules and Regulations should be made for its consumers, especially those with individually connections. They address matters relating to:

- 1 Membership
- 2 Area and gender representation
- 3 Election procedures
- 4 Composition and duties of Committees
- 5 Application for individual connections.
- 6 Conditions of owning and operating an individual connection.
- 7 Kiosk membership.
- 8 Disconnection.
- 9 Tariffs.
- 10 Penalties.
- 11 Dismissal.

These rules should also explain what members could expect from their Committees so as to hold them accountable.

GENERAL RULES

1. Membership to WMG must be as outlined below:-
 - a) Individuals/registered inhabitants above 17 years old,
 - b) Property owners within the supply area
 - c) Communal Institutions such as schools, hospitals, and churches.on condition that they have paid their initial contribution (in cash, labour or kind) and their water fee in line with the regulations.
2. All members should abide and follow the Constitution
3. Water consumption will be restricted mainly to domestic consumption (Human consumption, cleaning and hygiene), Livestock and authorised institutional users. Water will not be used for irrigation unless authorised by the annual general meeting.
4. Water supplied by the scheme must not be resold without a license of the WMG
5. The General Meeting will be responsible for the application of suitable water tariffs which shall be based on cost of production and distribution and which shall be subject to annual review by the Management Committee. After approval, the members will be informed about the new rates by a publication at public points in the area
6. In accordance with the Constitution, the Management Committee must convene an annual General Meeting (aGM) every year during which:
 - (1) Accounts of the scheme are presented for approval, which are audited by independent persons appointed by the last annual general meeting.
 - (2) The annual budget is presented for approval
 - (3) A proposal for modification of fees and charges is presented for approval
 - (4) Elections for the Management committee are organised and carried out. The elections shall be conducted according the procedures stated in the Constitution.
7. Length of term of office for the Management Committee is one year
8. The rules on the annual General Meeting and on the length of office must be strictly adhered to. In the event of default, the Management Committee is automatically disqualified and a minimum of _____ members can call for a General Meeting, which requires a quorum as defined in the Constitution.
9. Any violation of the rules will be dealt with in accordance with any fines and penalties laid down in the Constitution and where applicable, the criminal code.

INDIVIDUAL CONNECTIONS (ICs)

(households, institutions, businesses etc.)

1. An applicant must be a member.
2. An applicant shall make an application to the Management Committee, which shall approve or reject the application without having to give reason to the applicant for the refusal. The application form shall be availed to the applicant upon payment of a non-refundable fee
3. On approval the applicant shall:

- a Pay a refundable deposit
 - b Pay for the purchasing a water meter, equal to 125% the current price of a 1/2" water meter
 - c Purchase the necessary pipes and fittings.
 - d Sign the individual connections register and the letter of offer thereafter.
4. In the event of any pipe bursts or breakage within the individual connections lateral line, it must be reported to the technical staff immediately.
 5. Meters will be read between 24th and 27th of every month.
 6. Bills shall be prepared and made available for collection from the scheme office between the 28th and 30th of every month.
 7. Payments for water shall be made between the day of collection of the bill and the 14th of every month and a receipt for the payment should be obtained for every month.
 8. Failure to pay the bill will result in immediate disconnection.
 9. A fine will be paid as a penalty before reconnection.
 10. No reconnection will be done until all outstanding bills are cleared including the reconnection fee.
 11. Illegal connection or illegal reconnection shall result in immediate dismissal from the WMG.
 12. Existing individual connections should be regularised within a period of one month upon reading of these rules; failure of which shall result in immediate disconnection.

WATER KIOSKS

1. All those purchasing water from kiosks must be members of the scheme; except for kiosks at selected points like markets.
2. Water in the kiosks must be paid in cash at rates approved by the general Meeting.
3. A responsible attendant duly appointed by the Management Committee will man every kiosk.
4. Any misconduct at the kiosk by a member will lead to revocation of membership by the Management Committee.
5. Water will be sold at fixed times to be agreed upon between the attendant and the management committee.

MANAGEMENT COMMITTEE

1. The management committee is responsible for the management of the water supply.
2. The committee is elected on basis of zone and gender representation.
3. Length of terms of office for the management committee is one year.
4. Members of the management committee wishing to become employees should resign from the committee immediately.

ANNUAL GENERAL MEETING

1. The minutes of the last annual General Meeting will be read and confirmed
2. In the annual General Meeting the accounts of the foregoing year will be presented. These accounts have to be approved by somebody outside the WMG appointed by the last annual General Meeting.
3. The budget for next year will be presented. This budget is for the operational account. The planned activities are for operations, staff expenses, committee allowances and small maintenance. Only after approval of the budget by the annual General Meeting are corresponding funds allowed to be transferred from the water fee account to the operational account.
4. In each annual General Meeting, the sitting Management Committee has to have its mandate reconfirmed if they are willing to continue. Therefore elections are held in the same meeting. Committee membership is based on area en gender representation. Only those members belonging to that area will participate in the election of its representative.
5. General Meetings are to be held annually. The interval between 2 annual meetings is not allowed to be over 13 months. Additional general meetings called special general meetings may be held if the need arises. If the sitting committee fails to call an annual general meeting in time, they are automatically dismissed, lose their seats and have to hand over to a newly elected committee.
6. Special General Meetings may be called by _____ of the members of the WMG for a specific reason, for which they have to inform the sitting Committee in writing. The committee will have to organise such a special general meeting within 20 days after receiving the request signed by the members. No other issues are to be discussed as those mentioned in the letter to the Committee.
7. A group of _____ members is allowed to call a special annual meeting in case the sitting committee failed to hold the annual general meeting in time or failed to honour the request for a special General Meeting in time.
8. The minimum requirements for an annual meeting will be:
 - a) Presentation of accounts approved by an appointed outsider
 - b) Presentation of budget for next year
 - c) Presentation of the annual report
 - d) Presentation of a proposal for modifications of fees and charges
 - e) (Re)election of present Committee
 - f) Period of 13 months within the next annual meeting is to be held
 - g) Automatic dismissal of sitting Committee if these conditions are not met
 - h) Procedures to be followed if such a case may arise

Appendix 4: *Contents of a provider-client contract*

It is recommended to have a Provider-Client contract for all individual house connections or for permanent consumers of a public water point. Such a contract should indicate the duties and rights of both the provider and the client. The contract should be in line with the rules, stipulated in the Constitution and/or the Rules and Regulations.

A contract may include:

- the right to a certain service level
- the technical conditions of supply, including units or standards of measurement, verification of meters, limits of error and settlement of disputes relating to the measurement of water services provided
- procedures for complaints and requests
- the installation, alteration, operation, protection and inspection of works and consumer installations
- the determination and structure of tariffs
- the payment and collection of fees
- the right to ask for a reduction of fees for certain groups of users
- the duties and limitations in regard to water use; and the prevention of wasteful or unlawful use of water
- the duty to maintain the installations within the property and to alarm the provider in case of problems in the vicinity
- the duties in regard to waste water
- the requirement to have a licence for resale of water
- the circumstances under which water provision may be limited or discontinued and the procedure for such measures

Appendix 5: Example of an application form for water connection

TO: MANAGEMENT COMMITTEESELF HELP WATER PROJECT, P.O. BOX

FROM: (full name in Capitals) _____ P.O.Box.....

I hereby apply for a Household/Institutional /Business water connection. (delete what is not applicable).

Plot or land registration number _____

Main distribution line _____

Water is required for the following purposes:

- 1 _____
- 2 _____

As a member of the WMG I agree to abide the scheme Constitution, Rules and Regulations as set out for individual water connection holders.

signature of applicant _____

date _____

FOR OFFICIAL USE ONLY.

Application is accepted/rejected. On behalf of Management committee:-

Signature _____

Name _____

Designation _____

Appendix 6 *Types of record forms*

The records are itemised below pointing out those that should be present in schemes with individual connections and without. They include:

- Master register of Individual connections
- Register of Kiosk Members
- Agreement or application form for Individual Connections
- File for keeping scheme correspondences
- Committee meeting minutes book
- Chart showing materials used daily (Fuel, chemicals, Electricity etc.)
- Chart showing daily activities for the personnel
- Chart showing Breakage and repairs
- Personnel files
- Record books care takers

When these records are kept and properly maintained in a scheme it will ensure adherence to requirements laid out in the Constitution, and the operational rules, vital for successful running of the scheme.

Sample Ledger for Individual Connections without Meters.

.....WATER SCHEME
CONSUMER LEDGER.

Account No..... Connection No.
Date Account Opened Area (Zone).....
Application/Agreement No..... Plot No.
Name Folio No.
Address.....

Date	BF	Water charges	Other charges	Total charges	Payments	Balance	CR	Notes
	Kshs	Kshs	Kshs	Kshs	Kshs	Kshs		

Balance Carried Forward to 200.....Folio.....
Checked.....