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SUSTAINABLE ENVIRONMENTAL SANITATION AND WATER SERVICES

Managing watsan services in small towns

Dr Cyrus Njiru and Kevin Sansom, WEDC

A SIGNIFICANT PROPORTION of people in developing countries live in small towns. Small towns often require more elaborate forms of water supply systems than villages, such as pipe networks. In addition, as villages are growing into rural growth centres and small towns, the transition of appropriate management of watsan and the institutional set up proves difficult, consequently many of the small towns have relatively low levels of water and sanitation services. Until recently, small towns have been largely ignored in terms of new investments in water supply and sanitation. Where investment has been made, deterioration of services occurs soon after commissioning, possibly because proper arrangements were not made for operations and maintenance of the systems, or because inappropriate management options were adopted. Low levels of water and sanitation services contribute to the poor economic growth in many small towns, thus hindering poverty reduction efforts in developing countries.

While different management options exist for managing water and sanitation services in large towns and cities and also in rural areas, there is limited knowledge on how best to manage watsan services in small towns.

WEDC has been undertaking research on managing water and sanitation services in small towns, as part of DFID funded research project entitled “*Optimised management of watsan services in small towns*”. Considerable review of both published and grey literature has been undertaken, including field research in Uganda, Tanzania and Ghana. Some of the key research themes include:

- Assessment of existing management models for watsan services in small towns
- Methodologies and good practice for different small town scenarios
- Best practices and typical problems when using different management models for watsan services in small towns.

The aim of this paper is to identify and briefly review options for management of small town water and sanitation services in developing countries. The key features of each management option are presented and strengths, weaknesses, opportunities and threats established. This information can be used to inform selection of sustainable management options for small towns’ water and sanitation services in developing countries.

Small towns are unique

Small towns are unique, and a working definition of what constitutes a “small town” can enhance discussion on

management options, using experiences from different countries. The Small Towns Water and Sanitation electronic conference held between 31st January and 10th March 2000 developed the following definition of a small town:

“Small towns are settlements that are sufficiently large and dense to benefit from the economies of scale offered by piped systems, but too small and dispersed to be efficiently managed by a conventional urban water utility. They require formal management arrangements, a legal basis for ownership and management, and the ability to expand to meet the growing demand for water. Small towns usually have populations between 5,000 and 50,000 but can be larger or smaller.”

There is no evidence to support the premise that a “conventional urban water utility” cannot efficiently manage watsan services in small towns. There is also no agreement on what constitutes a “conventional” urban water utility, since different institutional models currently exist and manage watsan services with varying levels of performance.

The following revised definition is therefore proposed:

“Small towns are settlements that are sufficiently large and dense to benefit from the economies of scale offered by piped systems, but may be small and dispersed to require a management model different from that applicable in big towns and cities. They require formal management arrangements, a legal basis for ownership and management, and the ability to expand to meet the growing demand for water. Small towns usually have populations between 5,000 and 50,000 but can be larger or smaller.”

Management options for small towns watsan services

The main management models commonly used in the water sector may be broadly categorised as follows:

1. Central/state Government direct management (by government ministry or department)
2. Management by a public water company, Corporation, Board or Authority
3. Community management
4. Community water company or co-operative
5. Municipal management (also known as Local government management)
6. Shared management (public)
7. Private sector management

The key features of these management options are summarised in table 1. The classification of the different management options is intended to be utilised as a means

of distilling lessons learnt and considering the advantages and disadvantages of each management option. It should be noted that many countries are using a combination of management options *within the same town*, such as municipal management and also informal private sector, with some central government advice and support. Each of the main management option is described briefly in the following sections.

Public Water Company, Corporation, Board or Authority

These are usually 100% owned by the government and have an independent Board of Directors responsible for policy decisions. The corporation generates all its revenue for operation and maintenance. The corporation can borrow funds for capital development projects. There are also instances when the Government can borrow from multilateral development banks at low interest rates then on-lend the borrowed funds to the corporation.

This management option is often used for small towns and is common in East and Southern Africa, in countries such as Kenya, Uganda, Tanzania, Zambia, Lesotho and Swaziland.

Municipal management

The Municipal management model is where the municipal/town council manages the water supply system as part of its administrative activities. This is usually done by creating a department or section within the council structure that is responsible for managing water services in the town. This model is common in many developing countries, perhaps because it fits well within the local government structure and also with the global move towards democratisation. In addition, delegating decision-making authority from the central government to municipalities has the potential to strengthen the role of municipalities in general. Many governments that are keen on decentralisation of water and sanitation services are continuously embracing the role of Municipal authorities as the providers of water supply services. This is the case in Latin America, Africa and India.

A common problem with municipal management of water services is the lack of resources despite legal authority having been delegated from the central government. This is often compounded if revenue from water sales is not controlled by the water department but is used to finance other municipal council services. Another problem with this model is bureaucracy due to unnecessary layers of administration, where all transactions have to be approved by the town clerk or mayor.

Even where a water department is established within the municipal council, the head of the department is responsible to the town clerk. The lack of autonomy is a key problem associated with municipal management of water services. Perhaps the biggest problem with municipal management is political interference by local politicians who constitute the council. These problems are evident in many small towns under municipal management in Africa and

Asia. Several towns under municipal management are now moving towards private sector participation either through management contracts (as in Uganda) or by incorporating water companies (as in Kenya).

Community management option

The community management model, sometimes also referred to as co-operative management association, relies mainly on the beneficiaries from the water supply scheme for its management inputs. Under this management option, a Water Board, Water User Association or Water and Sanitation Committee perform executive functions. The executive can employ technical personnel to maintain the system or rely on the private sector for all maintenance activities.

There are several examples of community management options with varying degrees of success. Community management tends to be successful where a coherent “community” exists. Among the factors that promote a coherent “community” are (Batchelor and Scott, 2001):

- Existence of strong social relationships between members
- Many members may be linked through family ties
- People tend to share common goals and priorities, for instance most people are farmers
- Traditional social structures may still exist, such as village chiefs and elders
- Everybody knows what is going on
- A high degree of accountability can be enforced

Social conditions in urban contexts tend to be quite different, leading to a diverse population, making it much more difficult to identify a “community” that can manage water and sanitation services. In some towns, for instance (Batchelor and Scott, 2001):

- Low-income neighbourhoods often have a high proportion of migrants
- Communities are too big for effective accountability
- Certain towns have high transient population

These factors often lead to difficulties in community management of water and sanitation services in small towns. There are however a number of successful community managed water schemes managed through Water Boards in Senegal. Experience in Uganda (Woblenzi and elsewhere) shows that the idea of a community providing voluntary services as a form of community management does not always work well. Experience in Uganda shows that this management option can function if there is one or more proactive individuals. (Eyatu, 2000).

Ghana recently invested in the essentials for sustaining community managed small town water supplies, and provides a case study of decentralisation of formally centralised management of water supplies to community management.

Community water company

This management model is similar to the Co-operative management option, where a community sets up an au-

onomous organisation to run the water supply system. The community elects representatives who carry out the function of directors in a company. The directors recruit an executive (a professional manager) who is responsible for day to day management of the water system. Although the management of the Community Company is independent, the company has strong links with the community and surplus funds are potentially used to finance rehabilitation and extensions of the system within the community. An example of a community company is Kumbo water authority in Cameroon.

Private sector management options

Private sector capacity in small towns is often limited. The use of private companies for small operations like meter reading, repair of pumps and maintenance of supply mains is a well developed art in community managed water systems (WASH Report No. 71,1993). This is a lesson that can help to reduce staff levels in municipal authorities and the bureaucracy that was associated with direct maintenance of water systems.

In countries such as Ghana and Uganda, private sector participation in the management of water and sanitation services in small towns is being developed and contracts are being implemented. Lessons from these contracts will be very useful for other countries contemplating similar exercises.

Selection of management options for small towns

In the current WEDC research, a number of management options for managing watsan services in small towns have been considered, and it has been found that different types of institutions manage water and sanitation services in small towns of developing countries. There is no universally accepted option or model for management of water and sanitation services in small towns. Of particular importance to policy makers in developing countries is how to select the management option that is suitable for a given context.

A key aspect in developing efficient and effective management options is the need for institutional autonomy, decentralisation of management to the lowest practical level and the involvement of the private sector. Some of the key points coming out of the research and supported by fieldwork in Uganda, Ghana and Tanzania are:

- Need for organisational autonomy
- Need for commercial orientation to enhance efficiency
- Need to reduce political influence/interference
- Need for cost recovery and gradual reduction of subsidy
- Extending service coverage, particularly the provision of water services to the poor
- Need to optimise on staff
- Need to benefit from private sector participation

In selecting appropriate management options for each situation, a criteria could be developed in which important factors to be considered include:

- Billing efficiency

- Levels of service (service characteristics such as quality, quantity, reliability, frequency of supply, pressure, etc)
- Service coverage
- Technology in use

Organisational autonomy

An adequate level of autonomy is a prerequisite to the success of institutions in the water sector (WASH no.37, 1988). Effective organisational autonomy is the extent of authority to make decisions on key resources such as finance, human and water supply infrastructure. Issues such as the budget, revenues, hiring staff, payments to other institutions, control of personnel, institutional policies, planning and organisational goals are crucial for effective management of water services.

Commercial orientation

Commercial orientation is the degree to which actions in an institution are driven by cost effectiveness and operating efficiency (WASH no. 37, 1988). The orientation is viewed at both the operational and policy level. Institutions are commercially orientated if they pay constant attention to cost factors in order to establish a reputation of a well run business in the eyes of financial and outside community for them to obtain financial support for growth. Institutions with commercial orientation also have customer focus, in recognition of the fact that the institution exists to serve the customer.

Private sector participation

The water sector in developing countries has largely been dominated by the public sector. The perceived inefficiency of the public sector has led many countries to seek the participation of the private sector in provision of water and sanitation services. The private sector is perceived as more efficient, largely because of the drive for profits. In order to safeguard public interest, the use of the private sector however needs to be complemented by other institutional support mechanisms such as appropriate legal frameworks with an independent and effective regulation.

Summary of emerging lessons from the research

Some of the interim conclusions that can be drawn from all the management options reviewed are:

- The systems that are more autonomous tend to be run more efficiently (and commercially) as compared to those under central government and municipal management. This is perhaps because appropriate policies and tariffs can be set with minimum political interference.
- For municipal authorities to effectively manage water systems they need to introduce commercial practices by use of the private sector and strict revenue collection practices.
- Community management offers limited scope and capacity for investment in the water sector. Communities are unlikely to expand the distribution network substantially or increase the abstraction capacity of the

system, unless the communities receive grants from donors and NGOs.

- Community and private sector managed systems are more consumer driven in their operations. There is little often only limited consumer involvement in municipal management, as they are preoccupied with a wide range of service provision.
- Service contracts can be used to handle many of the water utility activities in small towns. This can help optimise on staff and increase efficiency. Contracting out is a clear means of attracting the private sector to participate in water service provision.
- Management contracts tend to introduce more commercial orientation to the water management. They can also be used to bring competition between different operators (contractors).

A lesson emerging from the research is that the best management options are those that take account of the local situation, addressing the needs of all consumer groups in both the core and fringe areas of small towns, including the poor. Management options drawing on local management are more likely to offer solutions that meet the needs of local users. In selecting appropriate institutional arrangements a combination of management options may be the most beneficial.

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Dr Cyrus Njiru (Research Manager) and Mr Kevin Sansom (Programme Manager) are based at WEDC, Loughborough University in the UK, and are actively engaged in training, research and consultancy in the water sector with a focus on developing countries.

Table 1. Management options for water and sanitation services in small towns

Management option	Who manages?	Key features of management option
1) Central/state government direct management	Central or state government departments	Direct centralised management through a government ministry or department, rarely commercialised.
2) Public company or corporation		
2a) National water company, authority or board	An autonomous publicly owned national or regional water company, corporation board or authority	National/regional institution with autonomy over resources.
2b) Regional/local water company, authority or board	An autonomous publicly owned locally based water company, corporation board or authority	Autonomous local organisation, with autonomy over resources.
3) Municipal management		
3a) Municipal management- No autonomy for water section	Municipal (or town/county) council staff	Usually has combined tax collection without separate water charges.
3b) Municipal management- with commercialised water section	Municipal (or town/county) council staff organised as a distinct water section or department.	Water section or department is distinct and commercialised; Separate water billing and revenue collection, distinct budget.
4) Community management		
4a) Community management by user association only	Community members through a water committee or user association	Community association/committee, legality of committee often unclear.
4b) Community management by user association responsible to town council	Community members through a water committee, responsible to town council	Water committee usually assisted by town council officials. Distribution of responsibilities often unclear.
5) Community water company	Autonomous structured management team and workers, responsible to community through an elected governing council. Managed as a company.	Community owned water company; autonomous structured formal management responsible to an elected governing council.
6) Shared management (public)		
6a) A co-operative for a number of small towns	A number of towns get together to form a joint organisation to manage water services	Regional institution with autonomy over resources, some town councils represented in the board.
6b) Separate bulk water supply management for a number of towns	Management is shared by two organisations, one for bulk supply and a separate one for distribution	One organisation develops and manages bulk supply, while distribution is managed by separate individual organisations through various management options
6c) Split operation and maintenance management and revenue collection	Government officials and municipal/town council staff	Management is split between state water authority (O & M) and town council who collects revenue.
7) Private sector management		
7a) Formal private sector management	Delegated management by private operators; through various types of contracts	Assets owned by government or municipal/town councils; Contracting out of watsan services.
7b) Informal private sector using small entrepreneurs	Managed by informal private operators, often small scale	Can be the only system in the town or combined with a formal, often inadequate system; Often owned by the informal private operators who also manage the services.