wsp
water and sanitation program

The Water and Sanitation Program is an international partnership for improving water and sanitation sector policies, practices, and capacities to serve poor people

Business Development Services for Community-managed Small Water Enterprises

From Post-Construction Support to Business Development Services in Kenya

Meera Mehta, Kameel Virjee, Barbara Evans and King'ori Wathobio

Contents

List of Figures

List of Tables

List of Boxes

Abbreviations

BDS	Business Development Service(s)
BOQs	Bill of Qualities
CPAs	Chartered Public Accountants
DWP	District Water Office
NGOs	Non Governmental Organizations
SWEs	Small Water Enterprises
MWRMD	Ministry of Water Resources and Development
PS	Private Sector
SO	Support Organisation
WSTF	Water Services Trust Fund

Exchange Rate 1 US$ = Kshs 73 (2006)

Acknowledgements

This paper was authored by Meera Mehta and Kameel Virjee (WSP-Africa), Barbara Evans and Kingori Wathobio (consultants).

The team would like to thank the following for their comments and contributions: Robert N. Gakubia, Director, Ministry of Water and Irrigation; Peter Jorgensen, SIDA/Danida; Anja Koenig, Economist, Ministry of Water and Irrigation/GTZ Water Sector Reform Programme; Tim Mander, Assistant Country Director, Program, CARE Kenya; Daniel Mwebi, DAP Coordinator, World Vision; Masaki Miyoshi, Program Officer, UNV Specialist, World Vision; K. Kivunzyo, Community Development Manager, Community Development Trust Fund; Luigi Luminari, Technical Adviser, Community Development Trust Fund; Harrison Nganga, Head, Small Practitioners, Institute of Chartered Public Accountants of Kenya; Engineer Kailikia, Kenya Water Institute; Wambui Gicheru, WSP Rural Team Leader; Mukami Kariuki, Senior Water and Sanitation Specialist, World Bank; and Eric Naivasha, K-Rep Advisory Services. The report was peer reviewed by Wambui Gichuri (WSP), David Ashiagbor (IFC), and Moses Banda (K-Rep Bank).

Valuable contributions were also made by participants at the stakeholder workshop held on October 6–7, 2005 at Kenya School of Monetary Studies, Nairobi. The workshop was organized by the Athi and Tana Water Services Boards and hosted by the Water and Sanitation Program Africa. In particular the report benefited from the contributions and ideas of chairs and managers of the 10 community rural water supplies who developed much of the thinking on business development services presented here. Proceedings of the workshop including the full list of participants are available as an annex to this report. Winifred Adhiambo and Jecinter Hezron provided able assistance during the document's production process. The generous financial support of the Public Private Infrastructure Advisory Facility is acknowledged.

Foreword

The rural water supply sector in Kenya has long been characterized by high contributions from community members in finance, labor and materials, and participation in development and management. Perhaps unique among East African nations, rural communities in Kenya are used to taking responsibility for at least some effort required to secure supply of safe water.

The Ministry of Water and Irrigation is currently leading a reform that will transform the sector into one that recognizes the potential of these community service providers. Under the reforms, oversight is now vested with seven regional water services boards and regulation with the Water Services Regulatory Board. The boards are licensed to ensure water supplies in their areas and to identify suitable independent water service providers who can enter into service provision agreements with them. Many of these providers are existing community rural water supply projects that have proved their ability, over many years, to operate and maintain rural water supplies.

One of the key challenges for Kenya is to ensure that these water providers maintain services; we need to find ways to focus efforts to support them operating the projects. In the past the district water offices provided this support, but under the reforms this will likely change. It is clear that while the excellent services provided by district water officers may continue to provide much technical support alongside existing private sector and NGO personnel, the challenge is to ensure this support, along with other services such as financial planning and community development. This support should be readily available to water projects at affordable prices. This is also important in exploring commercial funds from domestic financial institutions for the community water projects.

In short, there is a need to find ways to move support services toward becoming a market—where competent community-managed water service providers can purchase professional services from a range of local providers—to increase their own capacity and ensure service sustainability. Clearly, the water boards have a critical role to play in financing and organizing this market and assisting water providers. This report describes some of the thinking on how this market could be structured and what is needed to support its development. The Ministry of Water and Irrigation is committed to ensuring that reforms are achieved as quickly and efficiently as possible; providing support to water service boards and water service providers can facilitate reforms to lead to improved service delivery. We thank all the contributors to this current report and look forward to working together to develop the follow-up actions.

Eng. Robert Gakubia
Director, Water Services
Ministry of Water and Irrigation
Government of Kenya

Executive Summary

Background

Reform of the rural water supply sector in Kenya is expected to increase the autonomy of rural water service providers. The role played by water service providers engaged in developing, managing and operating schemes is separated from the regulatory role of the Water Services Regulatory Board, and oversight functions by seven autonomous regional water services boards.

The rural water supply sector in Kenya has significant user investment. Rural communities often mobilize substantial contributions toward the investment costs of rural water supply schemes. Technical assistance is often provided by NGOs, the water service boards' district water offices, and in a few cases, the private sector. It is estimated that community projects account for around 3,000 water supply schemes in Kenya. These often are operated as small enterprises and it is clearly the intention of the reform that this should become the norm, a sector served by small water enterprises with sufficient management skill to function autonomously within the regulatory framework.

To ensure their long-term sustainability and health, these small enterprises require business development services (BDS) covering technical, financial and social skills. The support needs to be sustainable so that the enterprises can have access to quality, affordable, professional services throughout the lifetime of water projects. Considerable professional capacity to provide business support exists in Kenya and the new institutions have a major role in promoting such services.

This paper examines the required business development services for rural water supply projects and institutional options for their delivery. It is based on analysis of the current situation and is informed by stakeholder consultation, including a national workshop of small water enterprise managers and operators.

Kenya is overwhelmingly rural, with 80 percent of the total population living in rural areas. Of this population, only 46 percent have access to improved water supplies. Estimates suggest that the annual growth in community piped schemes required to meet the Millennium Development Goals (MDGs) is 40 new systems each year, reflecting a total investment of about US$ 8.5–9 million (including rehabilitation costs). Clearly the market for business development services is already significant and will grow.

What support is needed?

Conventional scheme cycles in government and donor supported rural water supply projects tend to suffer from several shortcomings for developing viable small water enterprises:

- inadequate attention to financial and business planning during preparation, therefore failing to provide nascent water enterprises with tools for long-term tariff setting, staff development and strategic planning
- inadequate emphasis on understanding risks that may jeopardize project completion and sustainability, and on identifying risk mitigation and management strategies
- little emphasis on support during the post-implementation phase

For long-term sustainability, the support required by small water enterprises through BDS includes:

Scheme development support: developing a viable, sustainable community rural water supply requires inputs during the scheme development. Support includes:

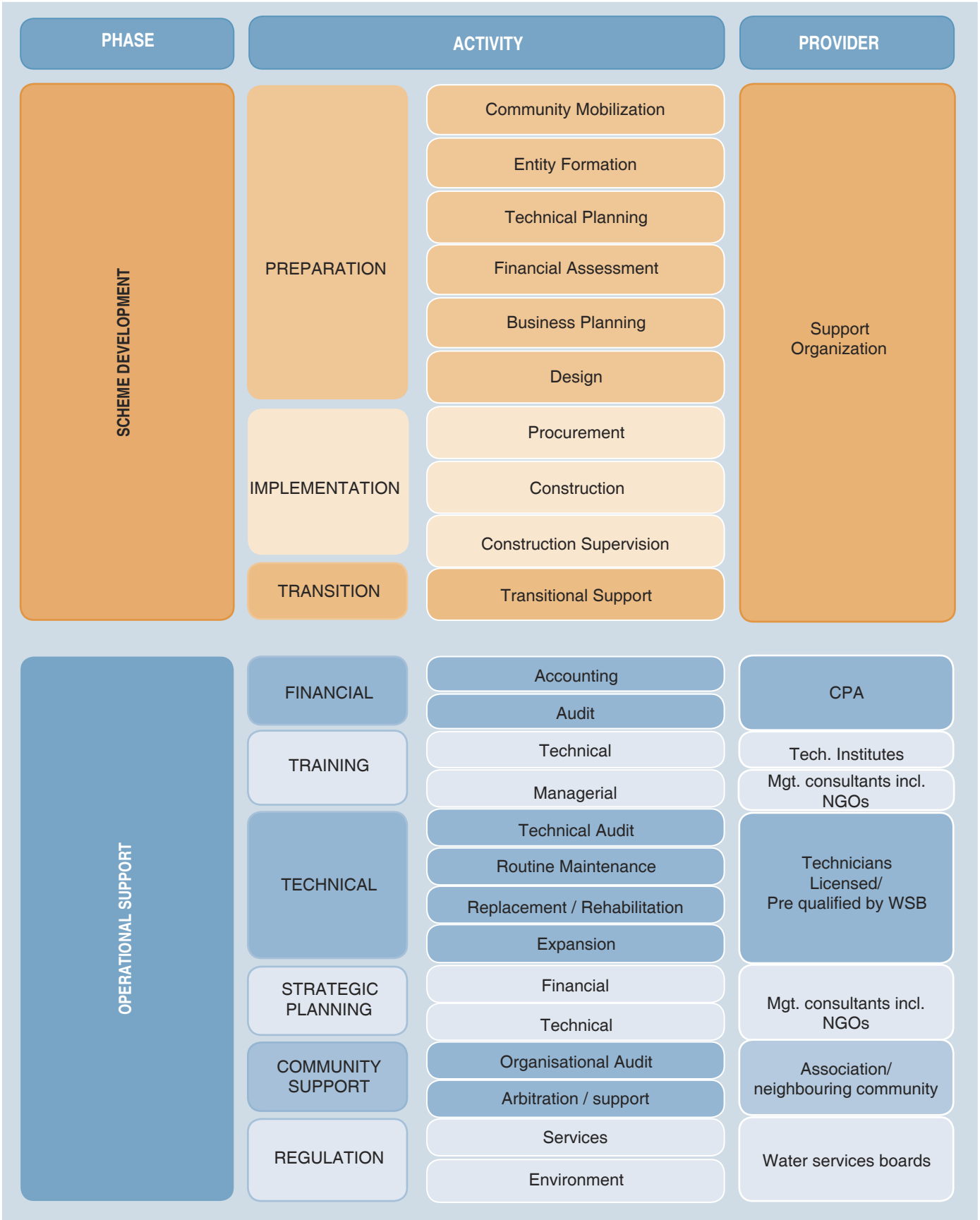
- During preparation: mobilizing the community for technical and financial input and business planning
- During implementation: assisting in procuring and supervising contracts
- Transition into a water enterprise: commissioning post-construction and warranty

Post-implementation phase support: obtaining and financing professional support for

- Financial services: accounting, bookkeeping and audits
- Ongoing training: technical and managerial aspects of water enterprises
- Technical services: audits to assess system performance, investments and maintenance
- Strategic planning: technical and financial input to prepare system business plans
- Community support: governance audits and arbitration
- Regulation and monitoring: ensuring compliance with legislation

See figure Ex1.

Figure Ex1: Business development services providers



Market assessment of business development services

Most public funded programs deliver scheme development support through contracted agencies that bring together needed technical and social skills. This approach is easy to justify for coordinated multidisciplinary interventions. Increased capacity will come because downsizing in the public sector will increase the number of skilled professionals in the private sector.

The delivery of operation support is more complex since services are needed regularly and continuously. Small water enterprises need to have access to this support from a range of professionals. Some services will be required regularly (annual technical, financial and social audits; regular equipment maintenance; accounting) and some periodical (major maintenance, strategic planning, community arbitration). The skill distribution and possible service providers are shown in figure Ex1

How can the environment for BDS be more efficient?

To ensure regular use of business development services by small water enterprises, they need to be affordable, readily available and of good quality. Various approaches applied in combination can promote sustainable delivery:

Bundling contracts: To reduce the transaction costs for small water enterprises and increase the size and attractiveness of contract packages for potential service providers, options include

- Bundling scheme development services: These might include contracts for scheme development, typically a preparation and transition or support organization contract, a construction contract and a construction supervision contract. Construction contracts may be a single turnkey contract, a commissioning and handing-over contract; or separate contract packages covering borehole production, goods only and/or civil works, with additional support through a contract supervision contract.
- Contract bundles for operation services: During operations, BDS can be divided by the frequency of their requirement and the skills needed. Contract bundles, which could be combined by some BDS providers, would, for example, include operation contracts, major technical support contracts or contracts to provide periodic input, such as business planning provided to a group of SWEs.
- Combined construction and operations: Some small water enterprises may prefer to contract out operation of new schemes. This could be achieved through a set time build-operate-transfer contract or a management contract that transfers full or partial commercial risk to a contractor.

Contracting parties: The contracting parties will be determined partly by the funding source and partly by the regulatory responsibility for the tasks concerned. Options to consider include:

- Direct contracting—the small water enterprise contracts the BDS directly
- Tripartite agreements—the water enterprise and a facilitating or financing agency jointly contract the BDS
- Framework agreements—a financier or facilitating agency contracts a BDS for a series of projects

Facilitating BDS development

Public agencies can intervene to improve the BDS market in Kenya by removing supply and demand constraints and creating an environment for sustainable BDS growth. For instance, supply constraints could be eased by providing capacity development to BDS or helping providers innovate and provide specialized products or bundled services otherwise unavailable in the market. To address demand constraints, public institutions can help regulate the service quality and reduce purchaser risk or require certain outputs from BDS, such as a technical audit. Networks of BDS buyers would also help strengthen demand. Standardizing services and providing a marketplace for services would help create an enabling environment. See figure Ex2.

Recommendations for follow up

Several actions to develop business development services for the rural water supply sector in Kenya present themselves.

- Developing model contracts: BDS can help improve the pace and quality of implementing new schemes and supporting services to existing schemes. While water services boards can develop model contracts, the contracts can also be collated and coordinated nationally, so water boards that rapidly move ahead can help others progressing less quickly.
- Promoting a federation of small water enterprises: The large number of existing small water enterprises in Kenya form a valuable resource for the government as it moves ahead with reforms. Successful water enterprises can provide valuable input and feedback to the process. Furthermore, they can provide support to each other and to nascent SWEs. They could become BDS providers. To facilitate this, an umbrella structure or federation is needed. A federation should be anchored by each of the seven regional water services boards.

Figure Ex2: Facilitating BDS

	MARKET INTERVENTION	POTENTIAL FACILITATOR
SUPPLY SIDE	**Product Development** Developing new products to water enterprises or product bundles that decrease costs (economy of scope)	*Water Services Board* can host training programs for suppliers of BDS *Professional bodies* (i.e. ICPAK for CPAs) can develop new products and train suppliers *Funding agencies* (e.g. commercial banks, WSTF) can also engage in produce development targeted at financial capacity
	Increase Capacity Networking and confederating BDS and training courses to increase knowledge amongst BDS or expanding the BDS pool by creating social enterprises	
ENABLING ENVIRONMENT	**Quality Assurance** Develop empanelment and certification processes to contain the risk of BDS purchase	*Water Services Board* as a regulatory body and central information source *Funding agencies* as agents requiring purchasing quality of BDS
	Transaction Costs Standard forms of contract and work scope to help standardize services provided	
	Information and Marketing Develop clearinghouses and other marketing to reduce the transaction costs of finding quality BDS.	
DEMAND SIDE	**Increase in information available to SWE** Increased information about BDS availability and benefits will increase the chances that enterprises use BDS.	*Associations of SWEs* can provide a basis for collective purchasing and knowledge exchange on effective BDS *The Water Service Board or funding agency* may require purchasing BDS for regulatory oversight or to maintain and monitor loan performance.
	Increase in collective purchasing power Developing clusters and water project networks by forming associations will increase the demand for BDS	
	Demonstration of BDS value Provide demand subsidies for purchasing BDS in the short run to demonstrate their use or regulate the purchase of BDS by requiring specific BDS reports and processes	

- Impaneling BDS: Water services boards can create a clearinghouse where the small water enterprises can identify and contact potential BDS. Water service boards would need to call together potential BDS to assess their interest and capacity to participate and develop an approach to impanel providers.

Public funds can and should be used for these short-term actions and also for the long-term development of a BDS market. Public funds will be justified by increased access rates over the long term, provided by sustainable water services and the reduction in direct support and rehabilitation costs, resulting from the increased sustainable access to water services.

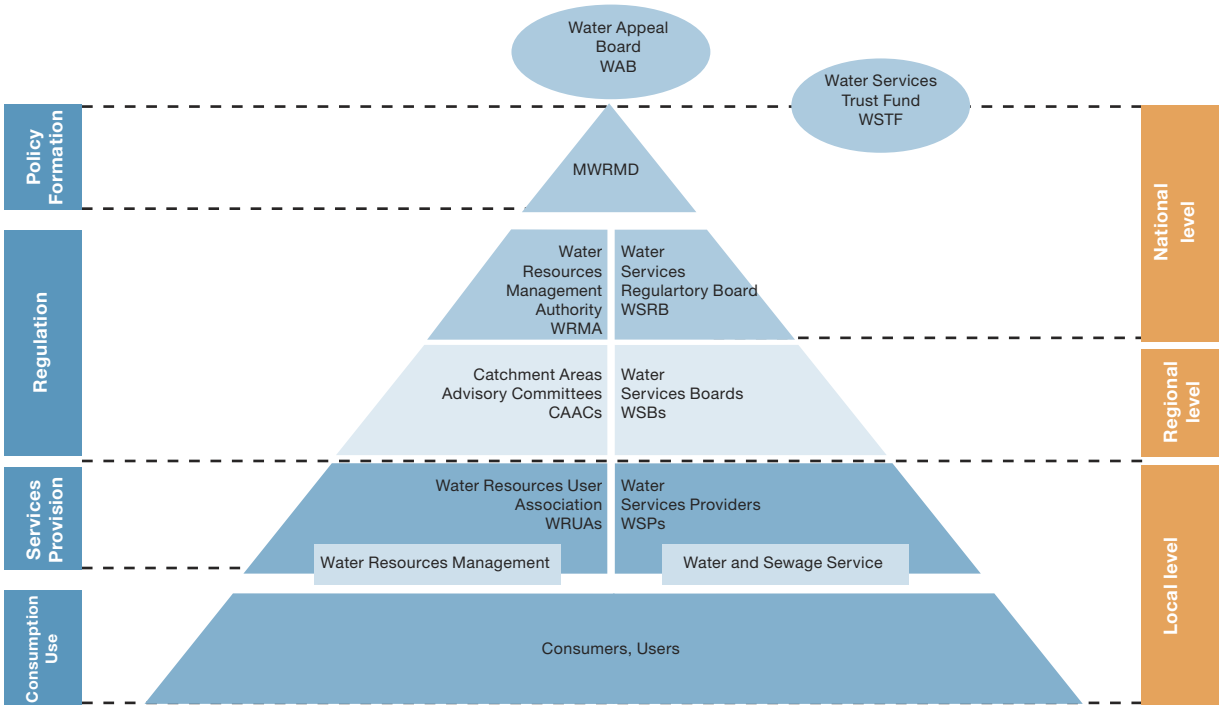
1 Background

Rural water supply reform in Kenya

The rural water sector in Kenya is currently undergoing reform, which includes the development of a new policy (Sessional Paper No. of 1999 on the National Policy on Water Resources Management and Development), legal instruments (Water Act of 2002) and institutional transformation process to address both water service delivery and integrated rural water resource management. While the policy and legal instruments are in place, institutions are in the process of being created to make the reform operational. The policy and Water Act open the door for new approaches for rural service delivery. A key plank of the reform is to improve the quality and sustainability of water supplies by increasing the autonomy of rural water supply providers. Providers developing, managing and operating projects are separated from regulation functions, now the mandate of the Water Services Regulatory Board, and from oversight functions, done by the seven autonomous regional water services boards. Government funds for capital investment will flow through the Water Services Trust Fund or the WSBs. The exact role played by members of the community will vary depending on project scale and complexity, the water provider itself and funding arrangements. Whatever form it takes, each water provider will have to enter into a service provision agreement with its water services board.

Most of these institutions—Water Services Regulatory Board, Water Service Trust Fund, and the seven regional water services boards (Nairobi, Central, Coast, Northern, Rift Valley, Lake Victoria North and Lake Victoria South) have already been formed and are now increasing operational capacity. Ministry staff will be managed by WSBs, with salaries paid by the Ministry, in the short run but only a few of these staff will be selected to join the water board permanent staff. This is being done to ease the

Fig 1: Institutional set-up under Water Act 2002



Source:Water Sector Reform Secretariat

transition of the approximately 6,000 current water department staff into employment within public or private institutions. The new sector structure is illustrated in figure 1; details of the new institution roles are summarized in box 1. Box 2 summarizes the service delivery principles under the reforms.

Box 1: Institutional roles and responsibilities under the Water Act of 2002

Ministry of Water and Irrigation
- Formulating policies and strategies relating to a) water resources, and b) providing water supply and sanitation services
- Supervising other institutions (Water Services Regulatory Board, Water Service Trust Fund, and the water services boards)
- Overall managing, coordinating and supervising the sector

Water Resources Management Authority
- Implementing policies and strategies for managing water resources
- Developing catchment management strategies, including appointing catchment area advisory committees and facilitating them

Water Services Regulatory Board
- Overseeing the implementation of policies and strategies to provide water supplies
- Regulating the provision of water supply services
- Licensing the water services boards and approving their water service providers
- Monitoring the performance of the water services boards and the water providers

Water services boards
- Responsible for the efficient and economical provision of water services under its license
- Appointment and contracting water service providers
- Asset holder of central government facilities

Water Services Trust Fund
- Assisting financing to provide water supplies in areas inadequately provided for

Water Appeals Board
- Adjudicating disputes within the sector

Water service providers
- Under license from the water services boards and with approval from the Water Services Regulatory Board, provide water supply services in their area.

Box 2: General policy principles

The Water Policy includes the following key principles:
- Government policy is to ensure that existing water supply schemes are rehabilitated and put under *sound management* involving the beneficiary communities and other stakeholders
- Strategies can be pursued within a *participatory framework* involving the communities and other parties in designing, constructing and managing the water utilities or other providers.
- Self-sustaining water systems where beneficiaries are encouraged to take *full responsibility* for operations and maintenance.
- The role of government is redefined with emphasis on regulatory and enabling functions as opposed to providing direct service. This calls for *institutional reforms* that promote an integrated approach, including changes *in procedures, attitudes and behavior and ensuring gender balance* in participation throughout the sector and institutions.
- Government will support *private participation and community management* of services backed by measures to *strengthen local institutions* in implementing and sustaining water and sanitation programs.

Community management of the rural water supply

The water sector in Kenya is characterized by unusually high level of user investment. Often rural communities will mobilize substantial contributions before seeking financial or technical assistance from NGOs or from staff in the district water office. About 3,000 community organizations and small private providers account for water supply schemes in Kenya. A number of rural projects appear to have been financed with no public subsidy. Many have been running quite successfully for many years. At a recent workshop representatives from 10 projects presented their experiences (see annex 1). The schemes served between 1,200 and 25,000 people, and used several management and staffing approaches. The largest, at Murugi Mugumango, serves 25,000 people, supports 3,000 house connections, employs 18 staff and has a monthly turnover of Ksh 200,000.

A recent review by WSP-Africa looked at 18 schemes with an average membership of 200–400

Box 3: Community rural water supply in Kenya

These schemes have the following general characteristics:

- Community commitment and interest to run schemes is high. Many communities have taken over government assets. There is a general history of community investment in rural water supplies.
- Projects are registered as formal entities with a defined set of rules. Projects commonly start as self-help groups and acquire more formal legal status over time.
- New schemes and major rehabilitation have invariably been financed partly from local fundraising, while operations have a reliable cash flow from user tariffs.
- Most schemes use water for many purposes, including domestic drinking water, livestock and small-scale agriculture. Scheme income is seasonal as a result of rainwater in the rainy seasons. Operation costs are heavily influenced by the technology and service.

Box 4: Good practice in community water supply: the case of Murugi Mugumango

This scheme was started in the 1980s when five small projects amalgamated to form Murugi Water Project. In 1983 Murugi merged with Mugumango Water Project to form the Murugi Mugumango Water Society. Construction of the project was supported by the Canadian Hunger Foundation, which hired a local NGO to train the committee and operations staff. Currently the project serves two locations covering about 140km^2 through 168km of main lines, 580km of branch lines and 12 storage tanks.

The scheme is managed by an elected management committee. The committee employs 18 staff, supported, when required, by contractors for specialized services. The project has 2,883 registered members out of whom 2,423 have individual metered connections. The project has adopted a commercial approach in its affairs and collects around Ksh 200,000 monthly against operation costs of around Ksh 150,000. The scheme is financially viable from the sale of water. An external auditor audits the scheme finances annually and the audit report is presented to members during the annual general meeting. In moving towards increased sustainability the scheme is embarking in strategic planning exercises. The scheme regularly hosts management committees and staff from other projects within the country and from outside the country who come to learn about its management systems. Such good practices provide opportunity for scheme learning exchanges to increase sustainability in the sector. Indeed the management committee has plans to the make the project a training center for community projects in the region.

households. The largest schemes served up to 1500 customers (for more information see *Financing community based water supply projects—summary of findings* WSP-Africa Study Report July 2004 (mimeo). Some summary findings from this review are shown in box 3. The first of a number of examples included in this report is in box 4.

Private finance in rural water supplies

Domestic finance institutions are increasingly interested in entering the rural water supply market, to provide credit and other financial services to schemes that can demonstrate long-term viability. Financing institutions will however lend only where projects are likely to be run effectively, with adequate tariffs, and which have effective billing and collection systems. Access to private finance has the potential to significantly increase service delivery nationally and contribute to Kenya's rural water supply targets. It should also contribute to investment sustainability by improving system planning, design and construction. The current unpredictable funding climate results in ad hoc construction, inappropriate technology choices and erodes communities' interest and motivation throughout planning, design and construction. The entry of domestic finance institutions should introduce a degree of technical and financial rigor and result in lower costs and better cost recovery. For more details about the possibility and implications of private finance in the rural water sectorm see Mehta and Virjee (2003) and Mehta and Virjee (2005).

The challenge of sustainability—small water enterprises and BDS

The entry of financing institutions into the water supply sector highlights the intent of the reform to establish a robust, largely self-financing water supply sector where communities can develop systems and operate viably using a combination of private finance and public subsidies. Emphasis on communities managing schemes with minimal support from government; they need to become small self-sustaining enterprises. The proposed public sector restructuring reflects this intent.

Usually a shortage of community specialists with technical, financial and business skills requires rural water supply schemes to rely on outside support for development and management. Currently, communities in Kenya are reasonably capable of attracting support for scheme development, mostly through district water offices, local NGOs and, in a few cases, private individuals or firms. With shrinking district water offices, support will have to come from entities operating outside government, a combination of private and not-for-profit entities and individuals. Ideally, efforts will ensure that long-term support is available for operations and maintenance—an area mostly neglected in the past. The full range of support required can perhaps be described under the general heading of business development services for small water enterprises. (See Box 5)

Box 5: Business Development Services

BDS has been defined as 'the wide range of services used by entrepreneurs to help them operate efficiently and grow their businesses with the broader purpose of contributing to economic growth, employment generation, poverty alleviation.'*

BDS for rural water supply schemes could include training and capacity building for scheme operators as well as targeted specialized support for financial and technical planning, community development, dispute resolution and operations and maintenance. Services to support latent businesses may also find a market where scheme operators plan to expand their operations into neighboring areas.

Business development services may also be useful for nascent support organizations as they grow into the new market created by the rural water supply reforms.

** Miehlbradt and McVay 2003*

There is a shift to capacity and resources from the existing structure, designed to deliver a national supply program, into sustainable rural water supply businesses, enabling small enterprises to access high-quality BDS at affordable prices. The business structure should provide opportunities to receive public subsidies, when necessary, for effective supply or service demand.

The raw materials of BDS are the existing district water office staff, NGOs, goods suppliers and individuals who work in this sector, along with others who may be attracted as the market expands.This emerging BDS market will need support or facilitation to successfully mature and become sustainable. The BDS literature urges a focus on ensuring this sector is financially sustainable, and illustrates it is possible to deliver support so that it enhances the quality and depth of the market, without distorting competition or resorting to state control. This may be of particular relevance to the challenges faced by the Kenyan rural water supply sector today. Government can facilitate growth in BDS for small water enterprises, from the demand side by the proposed reforms and from the supply side by supporting entities to build and grow into the emerging market.

The outline structure of the new market and its relationship with existing entities is shown schematically in figure 2.

Purpose and structure of this report

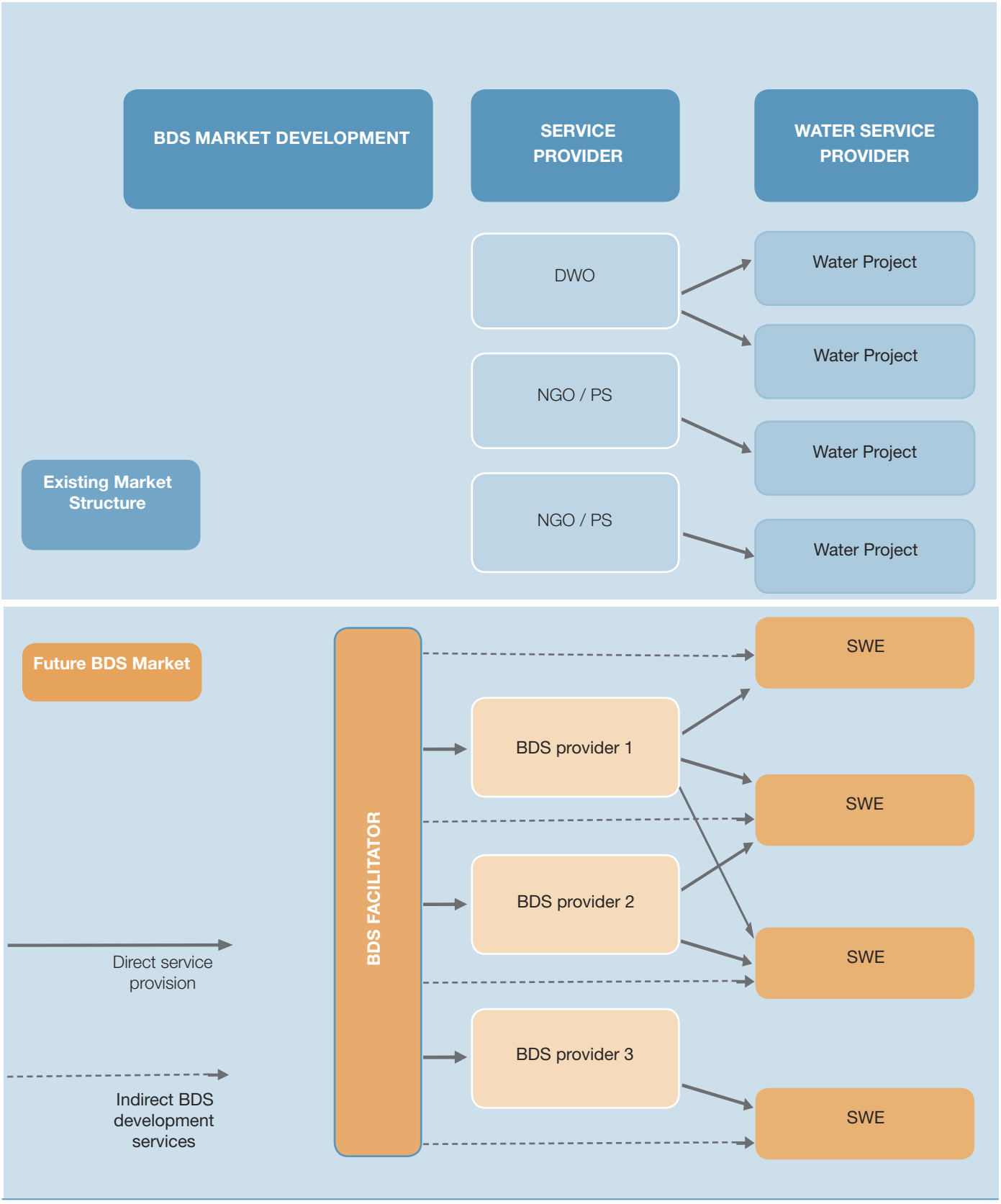
This report explores the nature of the rural water supply sector in Kenya. It looks at what BDS small water enterprises may need, where this support will come from, what options exist for structuring the new market and the role government can play in facilitating this market.

The report has been written for decision makers in Kenya, including members of the water services boards, the Water Services Trust Fund and Water Services Regulatory Board. Its purpose is to stimulate debate and provide a model and some options for a way forward. The report identifies what facilitation may be required to support the emergence of BDS, how and by whom it can be provided and what it might cost.

In section 2 we look at the scale and nature of the demand of the market, the community water supply schemes or water enterprises. In section 3 we examine what support is needed for water enterprises to develop and thrive, using the conventional scheme cycle of a rural water supply project in Kenya, but exploring what additional services could enhance sustainability. Section 4 looks at the nature of the supply market for each service required, how these services are currently delivered, and what are the options for future delivery.

Section 5 discusses how the BDS market can be made sustainable, including institutional options and financing arrangements. Finally section 6 discusses the role of a BDS facilitator and options for supporting the transition to market development services, including roles, responsibilities and interventions that could help BDS grow and section 7 recommends steps to be taken next.

Fig 2: Schematic relationship between BDS market and community water project



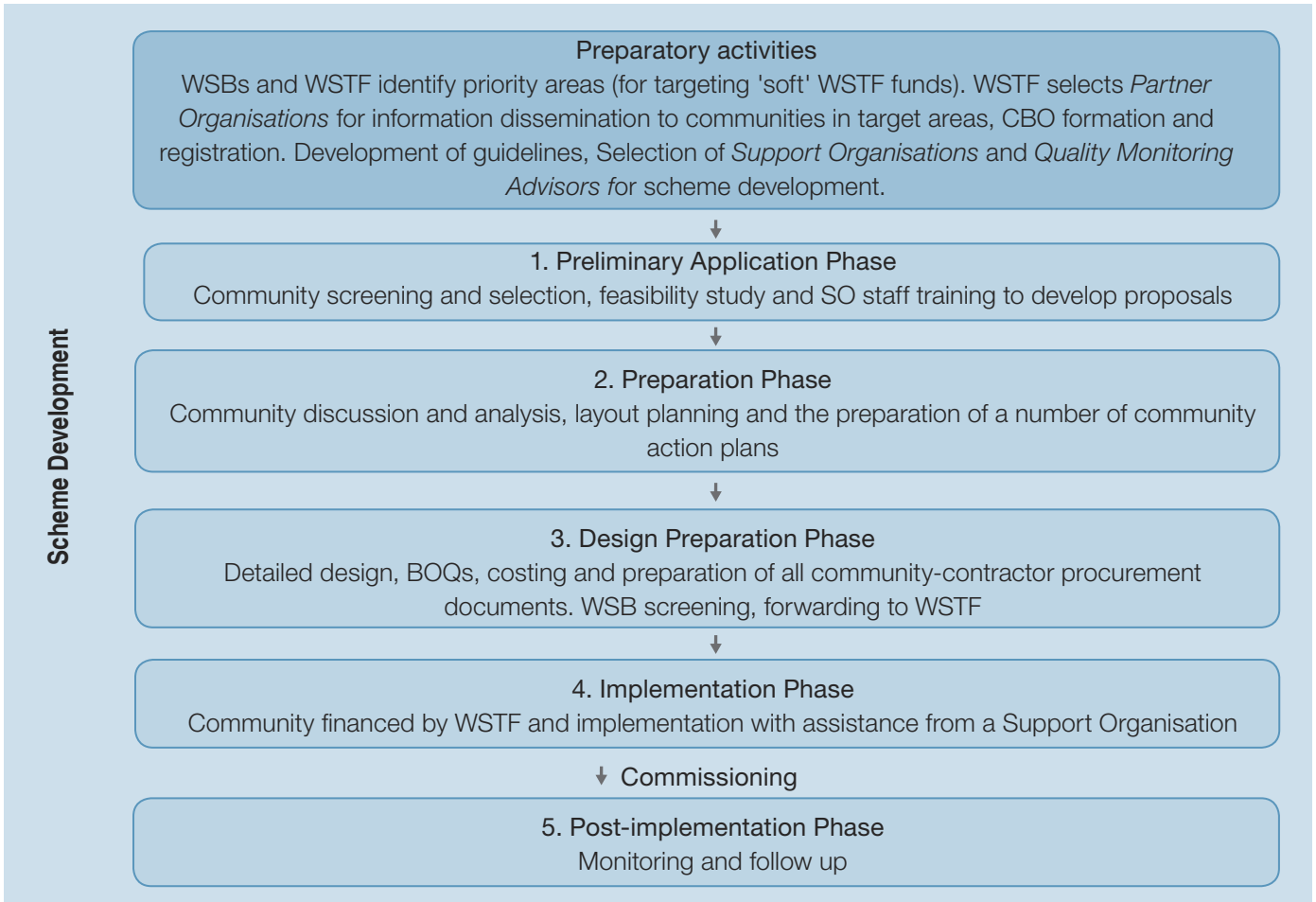
2 What support is needed?

The project cycle

Over the past 10 years the concept of demand driven and participatory rural water supply has solidified into a general approach, with many variations, characterized by a well-ordered scheme cycle.[1] Conventional wisdom generally accepts that for communities to manage sustained rural water supplies there needs to be a well-considered planning period, which includes technical decision making, attention to developing social capital for joint management and establishing community financing to cover the long-term scheme operation. The new rural water supply program in Kenya is no exception. A general scheme cycle is already under development by the Water Service Trust Fund; it will fund simpler projects in disadvantaged regions (WSTF 2005). The outline of this community project cycle as currently proposed is shown in figure 3.

This general development cycle neatly illustrates the attention paid to developing new or rehabilitated schemes up to the point of commissioning. Recognizing that technical capacity within communities will be limited, at least initially; this commonly includes identifying partner or support organizations to assist in social mobilization, community development, technical feasibility and design work, and perhaps financial planning. The cost of this support is usually subsidized from

Fig 3: Outline community project cycle - typical schemes funded by the WSTF



government or donor funds, even where there is some cost sharing for the capital costs. These support providers are commonly contracted through tripartite agreements, which include the community and the sponsoring agency.

Common challenges

Commonly, the community project cycle has several potential challenges, seen in numerous rural water supply programs around the world. These are summarized below.

Inadequate attention to the business case for scheme selection and design of small water enterprises: Sometimes technical and financial performance can be enhanced by identifying clusters of villages that could usefully be served together.[2] Clustering can bring economies of scale to operations, reducing per capita investment and running costs, so that some villages that might otherwise never be able to have services may be served. Such gains often come at the price of more complex designs and potential conflicts between different users. Management challenges, social conflict and technical breakdown can contribute to very poor service or no water at all in downstream villages. There is probably an optimal scheme size where the small water enterprise can be large enough to gain efficiency, but not too large to prevent local management.[3] To offset the risk, upfront studies and analysis can contribute to identifying optimal schemes.

Inadequate attention to financial and business planning in project preparation: Community mobilization and technical planning for rural water supply schemes are challenging, time consuming and can be costly. Typically communities will work with engineers from government departments, often in Kenya, the private sector or not-for-profit organizations and these may provide support for community mobilization and collective planning and decision making. Financial support may be very limited and cost sharing may only be a preset amount of total capital expenses. Often detailed dialogue on tariffs setting and long term financial policies is neglected. In the early years of operation this may not have severe implications, particularly in gravity-fed schemes where ongoing costs are small. However, once more serious maintenance issues arise, this lack of financial foresight, coupled with a lack of ongoing support, can lead to a total breakdown of the system.

Inadequate attention supporting scheme operation or post implementation: Once a scheme is constructed and operating, most national or local programs move on to new communities, usually with the implicit understanding that they are leaving behind a robust community group, to operate the scheme in the long run. The assumption is that the investment in upfront community planning, build-up of social capital and capital cost sharing is sufficient to secure effective long-term management. However, the evidence to the contrary is strong and compelling—many schemes in many countries fall rapidly into disrepair. The reasons for this are numerous but fall broadly into three categories:

- Technical: For example, communities are unable to solve problems with the equipment and facilities and have no access to technical support or cannot buy replacement parts locally.
- Financial: For example, communities are unable to generate the income for operational costs or, more commonly, meet the costs of unexpected or costly repairs, such as replacing worn parts or reboring. Funds put aside for the water supply system may be used for other community works or simply be mismanaged.
- Social: For example, systems for community decisions break down, resulting in stasis, unresolved conflict or capture of the system by the elite.

A modified scheme cycle for small water enterprises

Under the proposed reforms in Kenya, community water projects are expected to become largely self-sustaining, with a more formal reporting relationship to the water services boards. In addition, some community schemes are contemplating borrowing funds to finance new investments. This is likely to emphasize the weaknesses of the existing scheme cycle. Much more attention will be needed for support that focuses on the water supply to ensure its long-term sustainability. Viewing the project

Box 6: Kenara Water Project

The water project at Kenera was constructed and is managed by the Kenera Women's Group. This group took over the affairs of the project when after three years the original committee, managed by men, failed to make any headway toward realizing the community's plan of a water project. The women's group, 120 women, took over in 1992 and started raising funds among themselves through member contributions and jambo sales, at the same time soliciting funds from donors.

By 1996, they had collected Ksh 97,000, a small portion of the millions required to complete the project. In 1997 the Swedish International Development Cooperation Agency (Sida) agreed to finance the project through a Ksh 8 million grant. Sida also engaged the services of a support organization, the Development Office of the Catholic Diocese of Murang'a, to build the capacity of the group to manage the construction and operations once the project became operational. With this funding, by 1998 the group constructed the intake, the gravity main and distribution lines and storage, as well as set up the operational systems. The community contributed manual labor, such as trenching and transporting construction materials.

The project has operated since then and currently has 400 members (over 20 km^2), with 387 having metered house connections. The project is managed by an elected management committee (women only), which has employed operations and maintenance staff, an accounts clerk, a secretary and two line patrollers. The committee has instituted prudent management practices, such as an annual budget presented for approval to the annual general meeting, monthly meter reading and billing, regular surveillance for illegal connections, a water audit every six months and regular consultative meetings.

The project collects between Ksh 70,000 and 100,000 monthly from the water sales while their operations and maintenance costs average around Ksh 40,000, always leaving some funds in reserve. In 2005, for instance, they were able to accumulate about a Ksh 400,000 reserve, which they spent expanding the distribution system. They get external support from the district water office and the local private sector when they require specialized work, such as pipe fitting. They also seek advice from the district water office and prominent members of the group before they make major decisions and subject the decision to a consultative meeting with the members before implementing them.

Box 7: The need for BDS services – the case of clogged meters and negative cash flow

The Kanunga Water Project in Kiambu District is typical of many Kenyan community projects. The project was constructed by the community with little external support. The community struggled to raise funds and construction was spread over a long time period. The group took construction shortcuts, leaving out air valves and washouts, to save costs.

Although customers are metered and the tariff appears reasonable the project has not been generating anticipated surpluses. A consultant supporting the project estimated that unaccounted for water was over 70 percent of total production. No system defects offered obvious reasons for this.

Interviews with operations staff revealed that customers regularly complained of clogged household meters restricting flow until no water passed through. Further investigations revealed that the meters were clogged by mud and silt entering the system due to the absence of washouts. The system's revenues were thus depressed due to underperforming meters.

This case demonstrates the benefits of competent technical-financial audits to diagnose operational problems that would otherwise go undetected and ultimately undermine the financial viability of the system.

as a small water enterprise focuses attention on the nature and timing of the required business development services.

Figure 4 shows a modified cycle, reflecting the emphasis on sustained support for viable water enterprises. Changes include

- adding business planning and financial assessment to the development phase
- focusing on permanent support in operating the project
- using audits and plans for management, moving away from reactive support

Fig 4: Modified general scheme cycle for water enterprises

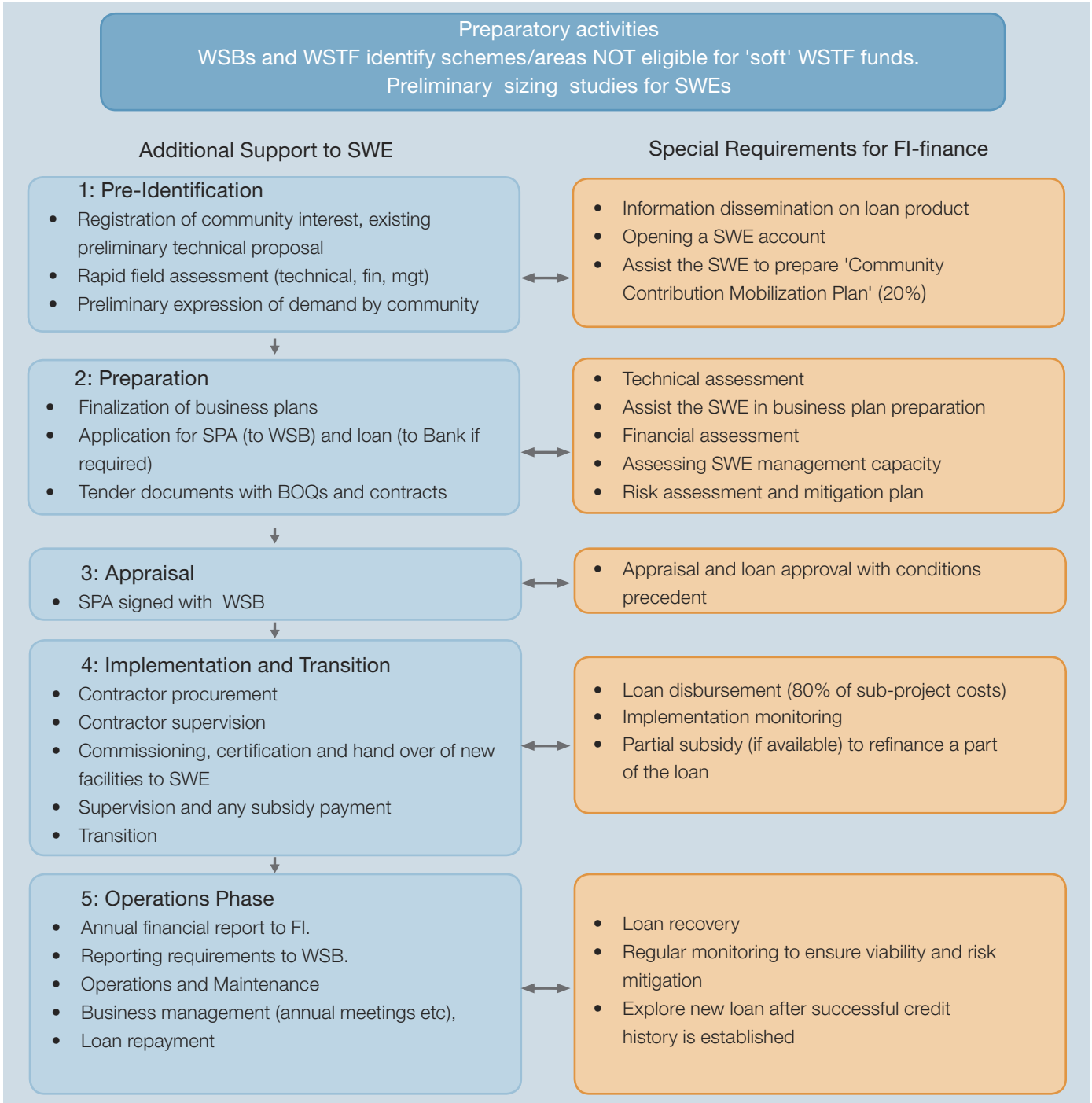
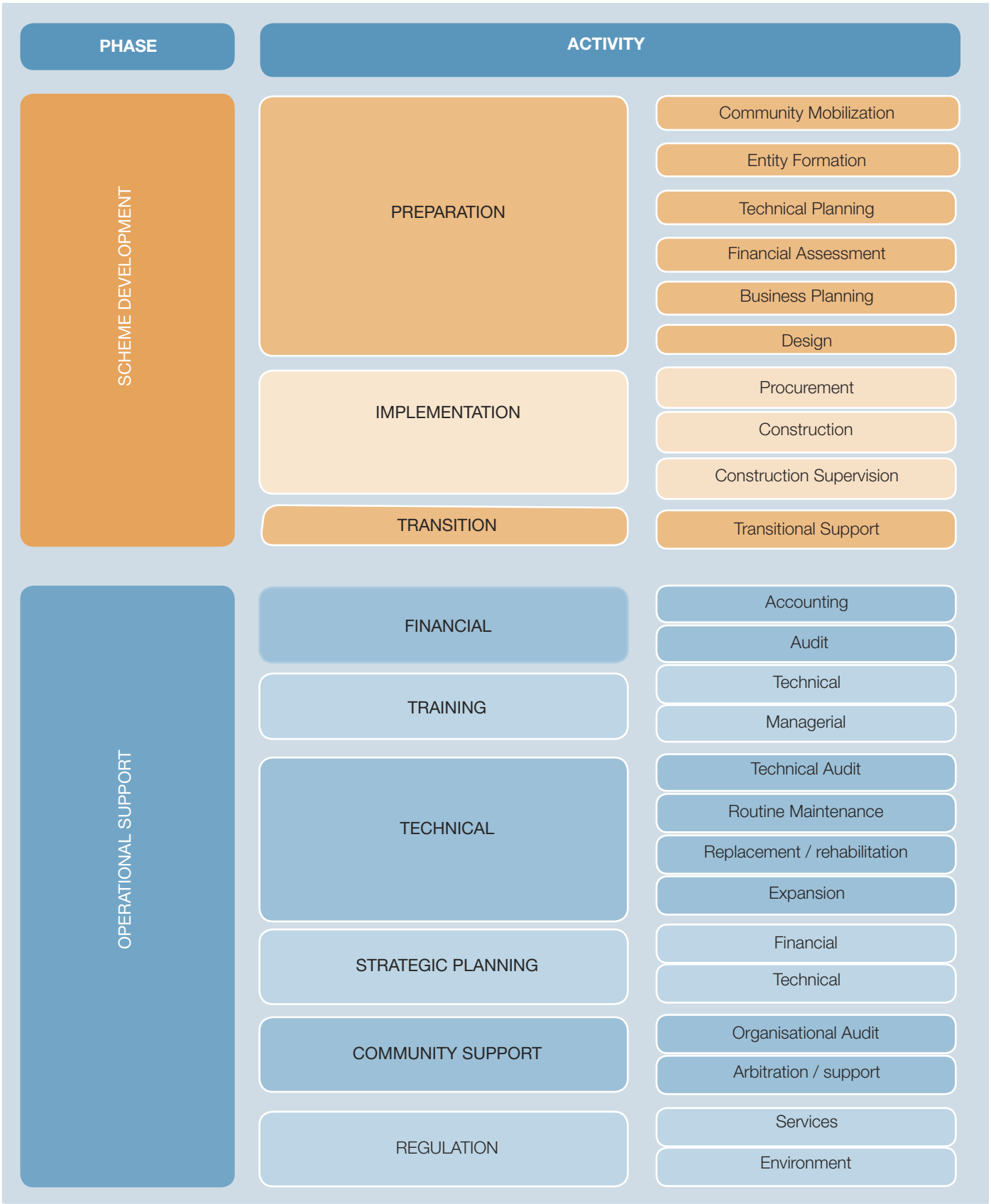


Fig 5: **Support for rural community water supplies**



Box 8: Market size assessement

Key Assumptions

- Average community piped water system serves 5,000 people
- Average cost of a piped system is Ksh 7 million (~ US$ 96,000)
- Average design life of a community system is 20 years, then it requires replacement
- 1999 Kenyan census coverage is representative; by 2015 the country strives to meet the rural Millennium Development Goals, 65 percent coverage

Assessment

- Total capital investment in piped rural water supply will grow from US$ 8.5 to 9 million from 2006 to 2009
- Over 50 percent of that will be for rehabilitating existing schemes or replacing assets
- About 40 new systems will need to be built each year, representing about US$ 4 million annually

From the modified scheme cycle it is possible to develop a more detailed listing of the services needed. Figure 5 shows the required services; divided between those required for developing the scheme and those required for operating it. Operational services need to be available permanently, on demand and at affordable prices. Without access to support, global evidence suggests few of Kenya's small water enterprises would be able to provide sustained, quality service.

Potential market size for water enterprises

Kenya has a 32 million population, of which 80 percent is rural. Roughly 46 percent of the rural population has access to safe water supply, while urban access is 89 percent (JMP 2004). Small water project management has largely been through community organizations.

While the exact number of community water systems in Kenya is not known, the consistent lack of government involvement in the rural and suburban water has meant most systems constructed in the past 20 years have been by communities. Many schemes have been developed by self-help groups, through their own efforts in saving funds and engaging in fundraising. Discussions with local experts suggest this trend is likely to increase with the new Water Act.

In addition to rural community schemes, domestic demand for water services is expected to increase steadily over the coming years near large and medium-size cities. With the planned transfer of more small systems from central government to autonomous local providers the role of community providers is set to expand.

Assumptions used to arrive at the market estimate, in absence of reliable data, are given in box 8, as welll as a summary of the estimated total market for rural piped water systems in Kenya. Most of these are run by communities, though it is possible that the local private sector may operate them.

[1] In the World Bank this has been formalized within the *Rural Water Supply and Sanitation Toolkit for Multisector Projects* , which is available on the web through the Rural Water Supply and Sanitation Thematic Group. Most other donors and some governments have also developed "standard" scheme cycles (see for example DFID 1998).

[2] In India, for example, such multivillage schemes are not uncommon in states that are highly dependent on surface water sources, and often reach very large sizes, serving over 100 villages.

[3] Optimal sizing of rural water utilities has been a largely neglected issue in the rural water supply debate and merits further investigation.

3 Market assessment of business development services

What makes a good BDS?

Once it is accepted that the long-term availability of good-quality BDS is the key to the sustainability of rural water projects, the next step is the sustainability of the BDS market. Sustainable BDS must have the capacity to

- deliver services on demand to dispersed water enterprises
- keep costs to a minimum and affordable to the water enterprises
- build internal capacity to contribute to innovation and emerging challenges
- manage commercially with appropriate accounting and management systems

In this section we will examine in detail the services required, the available requisite skills and options for sustained delivery. Box 9 provides examples of how such support is currently being accessed.

Support organizations

Support organizations capable of providing the needed support are not currently operating in rural Kenya. However, the skills do exist and are delivered currently by several providers, principally small local NGOs, national and international NGOs, staff of the district water offices, private technicians and suppliers, and, to a limited extent, consultants. Skills in new support organizations are likely to be drawn from the following:

- engineering consultancy firms, contracting additional services
- former district water office engineers and technicians, forming small companies with staff who can provide additional services
- local entrepreneurs—pipe and pump manufacturers, drillers, retailers—contracting technical skills (see box 10 for an example of a local firm with support potential)
- NGOs and community-based organizations, forming partnerships or consortia or taking on skills
- Neighboring existing water users associations or commercial operators
- Consortia of some of the above

Examples are presented in box 11.

Box 9: Private sector support to existing community water projects

Existing community water projects require external specialized input regularly. The following are examples of the support projects required:

Kabuku Water Project in Kiambu District has a standing contract with Jojosen Plant and Machinery Services, a private firm in Kiambu. Jojosen has assigned a pump mechanic for scheduled servicing and for repair of the project pump any time it has a problem. The project also has a contract with an audit firm to audit the books annually.

Nkaimurunya Water Project in Kajiado District has a contract with a pump mechanic who inspects the pump quarterly. The mechanic may also be called if the pump has a problem or if production drops too low. They have an auditor who audits the books annually.

Kamirithu Water Project in Kiambu took over from the government a borehole that required rehabilitation. After soliciting quotes from a number of drilling contractors, the project let a contract for Ksh 300,000.

Karweti Water Project in Kiambu produces water with an electric pump. The project is now planning to develop a second intake and use a turbine pump. The committee approached the Ministry of Water and Irrigation for advice in design, but they were told the expertise was not available. They have made a study tour to a turbine system and have identified a private consultant to design it for them when they are ready.

Box 10: Davis and Shirtliff

Davis and Shirtliff is one of Kenya's most successful suppliers of water-related goods, notably pumps and borehole equipment. The company is headquartered in Nairobi, but has built a successful regional network with many retail outlets. The strength of its operation lies in enabling local entrepreneurs to operate independently while maintaining a network of training, support and backup. Davis and Shirtliff suppliers can design, source, install and commission borehole equipment with reliable warranties to support their users in all parts of Kenya.

Box 11: Examples of past and existing support structures

Among earlier attempts to create support systems for SWEs is the District Technical Team (DTT), a concept that had been tried with the Self-Help Project of Kenya and Sweden Rural Water Supply Program. Project funds would be deposited into a community's bank account and the management committee would administer the funds, including tendering and construction supervision with support from the DTT. The program designed a district support structure to help communities develop proposals and train them to implement the project and manage operations when the project is completed. DTTs had representatives from the district water engineer's office, the public health department, department of social services, district development office and district agriculture office and worked well in the pilot districts of Meru, Baringo and Nyandarua, but ceased to function once the project was discontinued.

Other support services can be found among NGOs and also within the private sector. Among NGOs, Plan Kenya supports communities in their operations. Plan Kenya funds community water projects from construction to operation. In construction, Plan Kenya engages contractors for skilled tasks, while the community provides the manual labor. Plan Kenya also trains the committees and operations staff, with training mainly carried out by hired consultants. The training includes business planning. However, like much other external support, Plan Kenya's program is limited in providing long-term support.

The private sector provides various different support services: preconstruction services such as system design, operation support such as the contracts for pump repairs, audits, and other specialized services such as meter testing and calibration.

BDS options—scheme development services

Developing viable, sustained community rural water supplies requires technical skills delivered in a coordinated program, enabling communities to build social capital and develop a water supply using the least costly and most appropriate technical approach within a sound financial framework. As in figure 4, the package of work includes

- Community mobilization: do initial planning, identify scheme, arrange for community management and decision making, make financial commitments
- Entity formation: undertake legal registration where required
- Feasibility planning: identify the scope and cost
- Financial assessment: establish the financial basis, including long-term projections for tariffs
- Business planning: establish the operations, including management, staffing, establishment costs, financial management
- Design
- Procurement of construction contractors: may include some community procurement
- Construction: include supervision
- Transitional support: ease the community from development into operations, including technical support or commissioning and warranty

In recent years many government and donor programs delivered such support through consortia,

combining the needed skills and often led by NGOs with local knowledge or by small local consultancy firms. This approach is advocated by the Water Service Trust Fund to identify and contract partner organizations to support scheme development. For schemes not funded by the Water Service Trust Fund this approach is likely to be the most effective: financing partners and water enterprises identifying qualified consortia to provide development services. Staff currently in the district water offices will be important, however not in a role as government officers. As the district water offices are dismantled these staff may transition into

- independent technical consultants who can be hired into scheme development consortia by NGOs or private firms
- small private firms who can lead, subcontract or participate in joint ventures for scheme development
- staff of NGOs or larger private firms who win significant scheme development contracts

Operation support

The second type of support is required during the operational phase. Such support needs to be sustainable, where communities can access and finance professional support from a range of providers

- financial services: accounting, audit
- training: technical, managerial
- technical services:
  - regular technical audit to assess operations and maintenance
  - routine maintenance
  - periodic rehabilitation and replacement of system elements
  - planning and implementing system expansion
- strategic planning:
  - financial projections and planning
  - technical projections and planning
  - combining the above to develop 3, 5 and 10 - year plans
- community support:
  - organizational audit: assess the state of community and management processes
  - arbitration and support: deal with failures in either community or management
- regulatory interventions: ensure that schemes meet public policy requirements

Since these do not have to be delivered as a single package within a set time, water enterprises will benefit from using services from individual providers who can provide least-cost professional services. These supports are considered separately.

Financial

Two main areas of financial capacity support are required: routine bookkeeping and accountancy, and annual or more regular financial audits, including meeting the likely regulatory requirements of the water services boards. Many schemes currently employ accountants, although not always chartered public accountants (CPAs) to manage the regular accounting. Some contract with CPAs to carry out monthly, quarterly or annual audits. The Institute of Chartered Public Accountants of Kenya estimates the cost of a professional annual audit should range between Ksh 30,000 and 40,000, slightly higher if the review is to include business advice. There is little evidence that schemes currently pay this, so some work is needed to ascertain the required detail and specialization required. However, CPAs are generally available even throughout the rural districts of Kenya.

Training

While there is often a focus on training during scheme development, it is often neglected during operation. Many schemes have elected committees as part of their management and new committee members need assistance to build the necessary technical understanding and management skill. Furthermore, the population can often contribute both positively and negatively, to management decisions; better general awareness about scheme requirements can make these contributions more positive. Finally, technical staff employed by the scheme would profit from regular technical training to keep them up to date with developments and maintain their interest and motivation.

Training thus falls into technical training, both overall and hands-on, and management training. Regional and district technical training institutes could be provided, with some oversight and input from, for example, the Kenya Water Institute. Another source of technical expertise comes from private pump and equipment suppliers and water supply engineers.

Management training may come from management consultants including local firms, small enterprises and NGOs with good management and training skills.

Technical

Technical support in operations is perhaps the best understood small water enterprise requirement. Government programs in many countries have aimed to provide technical support, but success has been limited, usually because insufficient resources and a supply side approach do not enable small water enterprises to get the support they need when they need it. In general four types of support are required:

- regular technical audits to assess operations and maintenance
- routine maintenance
- periodic, programmed rehabilitation and replacement of system elements
- planning and implementing system expansions

Regular technical audits could help to move SWEs into active operation and maintenance, where regular maintenance can be planned, rather than systems being allowed to deteriorate until they require crisis maintenance or replacement. Regular audits would reduce and smooth operation and maintenance costs and enable the enterprises to plan expenditures. While some SWEs may have in-house capacity to carry out technical audits there may be advantages in having an external audit done by an independent technician who can see the scheme as a whole, without being immersed in its daily operation.

Once regular audits are in place routine maintenance can be implemented. While some SWEs employ technical staff capable to carry out all routine maintenance others do not and seek this support from the private sector. Even where schemes have qualified technical staff they will have to use external support for larger rehabilitation and replacement activities—a planned part of a maintenance program. This might include replacing key elements of the system, or repairing or replacing lengths of the distribution network or other larger work that might arise in normal operations. Finally, technical inputs would be required to support SWEs in planning and implementing network expansions and increasing capacity in response to growing demand.

The capacity to deliver support exists in the private sector and in district water offices. However, district offices have limited funds for delivering support for operations and staff are sometimes obliged to focus more attention on new schemes because resources are more readily available. In the future, many schemes should be willing to use their internal resources to pay for professional technical support. The main constraint may lie in the ability of the water enterprises to identify qualified and professional technical service providers. Quality control is essential to maintain the safety and integrity of water supplies. Quality control should be the responsibility of the water services board. The balance will be between maintaining quality and containing service costs.

Strategic planning

Financial and technical support and management training will enable small water enterprises to maintain their service quality and plan for daily operation. But schemes must to be equipped with the information they need to plan their businesses over the long term. This includes projecting future demand and income, planning future investments, pricing policies and management decisions. A strategic plan enables SWEs working with communities, to develop schemes progressively, to save, borrow, and invest funds effectively, and to maintain and improve services.

Strategic plans have both a technical and a financial element. Water enterprises will require support to develop them. This could be provided by independent management consultants, local consulting firms, NGOs or others with business and technical skills who can work with the SWE to develop a 5 or 10-year vision and detailed long term plans.

Community support

Community support can help prevent disputes, maintain communication between community elements, reduce distrust between users and managers, and generally improve the engagement of the community in the scheme. This has often been neglected; many schemes fail not because of technical problems but from a breakdown in community governance structures. Community audits can assess the health of management and

community structures in the water enterprise, and help arbitrate in resolving disputes.

Some groups, mainly NGOs, highly skilled in community planning, may often have less experience in maintaining consultative participatory structures and helping them grow. Much of this expertise resides within successful water and other community enterprises. A network of existing water enterprises, perhaps an association, could support new water enterprises and provide audit and arbitration services to its own members.

Regulation

The water services board works with SWEs to identify needs and issues service provision agreement to the SWE. The agreement will have conditionalities such as the need to conduct regular financial and technical audits and the SWE may require support to satisfy these agreement requirements. The WSB has an interest in ensuring that water enterprises can comply, to achieve their mandate and ensure that services are delivered to as many people as possible. Until service provision agreements are universally in place the exact requirements and the Board's role in supporting SWEs to meet those requirements remains unclear.

Summary

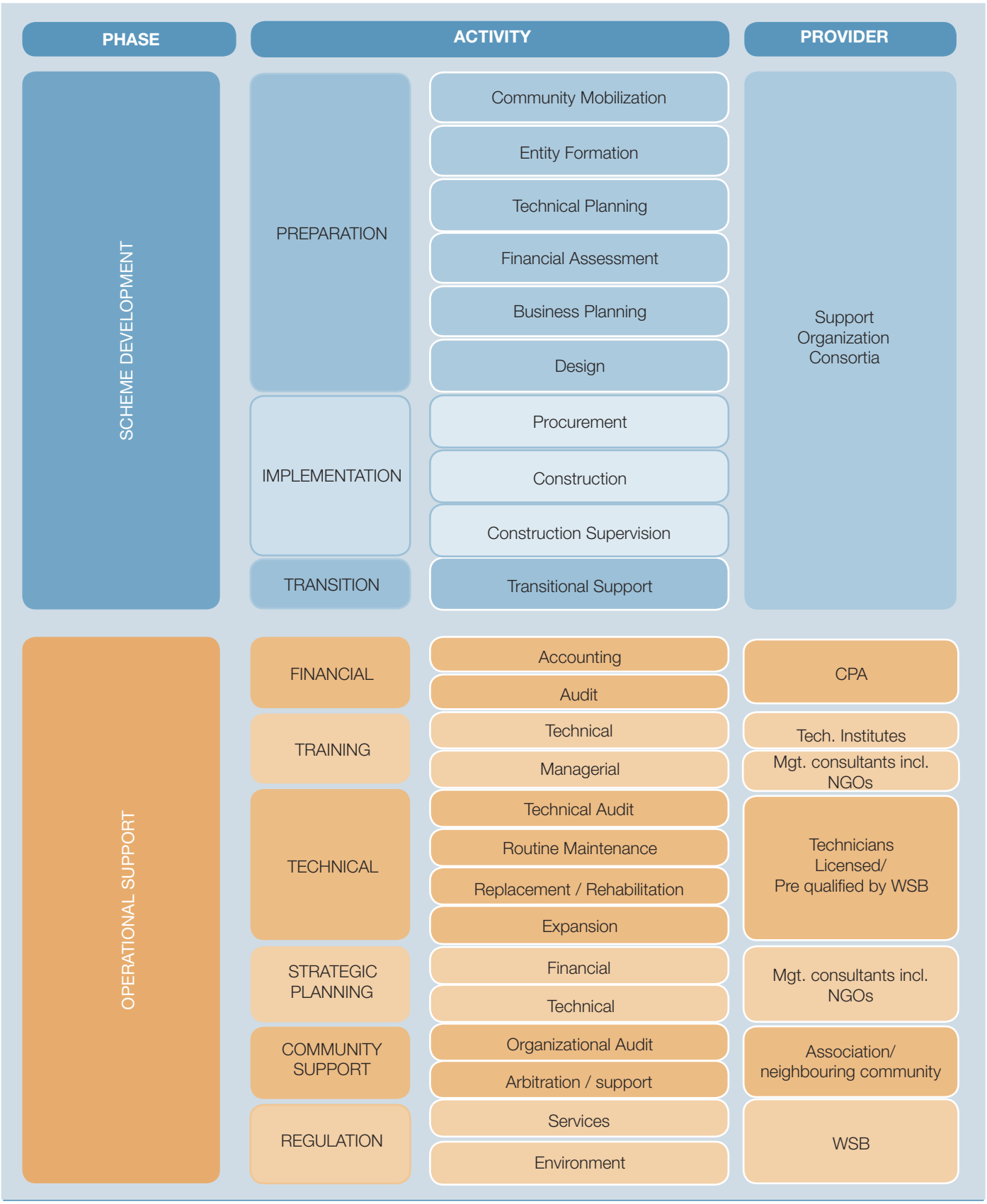
The relatively sophisticated SWEs that characterize the Kenyan water sector require a range of business development services that go well beyond the traditional package of scheme development support. They require enhanced, more business-oriented support during scheme development and professional business services during operation: financial, training, technical, strategic planning and community services. During scheme development support could be provided through consortia that would bring in the needed skills, much as proposed by the Water Service Trust Fund for their schemes. However, during operation two things are likely to shift. Funding will change from public subsidy to direct payment and support service will shift from packaged service toward a market with services available from a range of providers.

The range of service providers is likely to include

- public accountants: individuals or firms
- technical training institutes
- management consultants: private firms, NGOs
- licensed and qualified technicians
- neighboring water enterprise committees and communities
- association of water enterprises
- water services boards

A summary of the BDS requirements and likely providers is shown in figure 6.

Fig 6: BDS support providers



4 How can the enabling environment for BDS be made more efficient?

Institutional strategies—general principles

While the reform is to empower SWEs, it is also important to consider the existing capacity to deliver water services and to contract BDS. Interventions to reduce risks and the transaction costs for BDS could significantly improve the quality and quantity of support delivered. Choices need to be made about appropriate BDS contracts. The objective is to simultaneously provide sustained support and build market capacity.

A 2002 review of post-implementation support in Latin America (Lockwood, 2002) is relevant to BDS throughout the scheme cycle. The study identified four generalized models:

- Centralized model: Support services are provided by a government ministry or agency operating from a central point. This is common in small countries—Costa Rica, for example, has a single national directorate to deliver support nationwide.
- Deconcentrated model: Support services are provided by a government ministry operating from regional offices. The district water offices in Kenya conform to this model.
- Devolution model: A decentralized tier of government is responsible for support services. Commonly this is through municipalities or regional government.
- Delegation model: Support is delegated by contract to a third party. Mali has a good example of delegation by contract—see box 12.

This analysis proved that in Latin America there has been little or no experience of community water enterprises directly contracting BDS. However, it also highlights that nationally funded and managed support mechanisms often are not sustainable (see box 13).

In Kenya, the experience of the Community Development Trust Fund illustrates that BDS for scheme development can be successfully managed and delivered by a deconcentrated national structure. But for water supply, only extremely simple schemes requiring quite limited support are financed through this mechanism and little or no follow-up support

Box 12: Mali – 'cellule' support for rural schemes

Since 1993 some community rural water supply schemes in Mali have been supported by the Cellule de Conseil aux AEP (the 'cellule'). Currently the cellule is supporting 57 community schemes with:

- technical and financial advice through daily radio communication
- settlement of accounts every six months
- technical and financial audits every six months and release of the results to the General Assembly, the community and the regional water agency

The cellule also provides additional support on request, such as assistance with purchasing service provision agreements, parts, training and studies.

The financial viability of the cellule is assured through a guaranteed fee levied on the water charges in all the schemes it supports (about US$ 0.03 per m^3), along with fees for some of its services. However, in its earliest days it was subsidized, and initially it provided support to fewer schemes. Even now it appears to have difficulty recovering costs from the smallest and most remote schemes. Overall it has proven highly successful and the Direction Nationale de l'Hydraulique is now planning to expand support by letting contracts for two or three regional operators to extend cellule services to over 200 communities.

is provided (see box 14). Despite the lack of public sector models successfully delivering such services, including operational support, commentators agree that most rural communities cannot be expected to manage on their own indefinitely (Lockwood et al. 2004). This reinforces the need for a sustained BDS supply.

Kenya faces an important challenge as it moves into implementing its water sector reforms, empowering communities to take control of decisions and managing water supplies, while maintaining access to reliable BDS in the long term. It seems that a radical new approach will be needed, the creation of a market of professional BDS providers. The challenge lies in making this market efficient and effective while minimizing the risks and transaction costs.

Options for contracting BDS in Kenya

The SWEs can select and contract BDS while the water board reduces risks and transaction costs through contractual relationships with potential BDS. There are five contracting options:

- direct contracting with a funding agency (e.g. Commercial bank or the Water Service Trust Fund)
- direct contracting with the WSB
- framework agreements with the WSB
- direct contracting with SWE; WSB quality control
- tripartite contracting between SWE, WSBs or the funding agent and BDS providers

A summary is shown in table 1

Box 13: Deconcentrated support in Honduras

Since 1995 the system of Técnico en Operación y Mantenimento or TOM in Honduras has provided support nationally to over 4,000 rural water supplies serving more than 2 million people. Eighty-six technicians (known as TOMs) are employed by the National Water and Sewerage Company (SANAA) and based in six regional offices. Each TOM is responsible for an average of 50 communities and provides support to the community water boards in all aspects of system operation, principally providing informal support and advice. In 2000, the TOM program had an annual US$ 1.25 million budget, with 35 percent financed through a USAID subsidy and the balance by SANAA. Observers have noticed that the TOM system, while it has many positive features, has possibly been over reliant on external donor funding and its sustainability has been called into question. Interestingly, it was developed from the circuit rider model of the National Rural Water Association in the US, which has demonstrated long-term sustainability.

Summarized from Lockwood et al. 2004

Box 14: The Community Development Trust Fund

The Community Development Trust Fund, headquartered in Nairobi, supports community development projects throughout Kenya. Its four-year funding up to December 2006 had an investment budget of Ksh 1 billion. The Community Development Trust Fund has approximately 30 staff, in Nairobi and in four regional offices. The fund has its own detailed project development cycle, with a single project taking on average 12 months or longer for detailed planning and implementation. The Community Development Trust Fund board considers a minimum of 10 projects for approval at each monthly meeting. Projects have a maximum Ksh 5 million value for single investments and Ksh 21 million for integrated projects. The fund has supported rural water supplies using a very light administrative structure and in-house technical and social development staff. It targets the very poorest communities and has a policy of avoiding exclusive service delivery, such as through house connections. Its structure and operating norms are for schemes that will attract funding through the Water Service Trust Fund.

K. Kivunzyo, Community Development Manager, Community Development Trust Fund, personal communication

Table 1: Summary of contracting options

Option	Advantages	Disadvantages
1. Contracting with funding agency (e.g. Water Service Trust Fund)	Simple, funding agency retains control over timing and technical quality. For new schemes the funding agency supports the water enterprise as it becomes established without excessive management. For a funding agent other than the Water Service Trust Fund, costs could be recovered later.	The water enterprise has limited or no control over choice, timing and service costs. Lack of competition may stifle quality and raise costs. High operation and transaction costs to funding agent may constrain sustainability.
2. Contracting with water boards	Simple, low apparent transactions costs to communities. The water board maintains control.	Limited control and choice for the water enterprise. Lack of competition may stifle quality and raise costs. High operation and transaction costs to the water board may constrain sustainability.
3. Water services board framework agreement	Blends quality control from the water board with some limited choice and control for the water enterprise. Financial sustainability potentially enhanced through sharing costs between the water board and the water enterprise.	More complex to establish. Raises transactions costs on both sides. Financial sustainability constrained by water board budgets.
4. Direct contracting with water enterprise	Maintains control with water enterprise. Choice should drive improvements in quality. Financial sustainability should result as BDS is financed through scheme revenues. Competition drives down costs and raises quality. The water board can perform oversight and quality functions with no conflict of interest.	Higher risk and transaction costs to the water enterprise.
5. Tripartite contracting	Maintains control and builds capacity of the water enterprise without passing fiduciary responsibility away from the funding agency.	Can be complex and contracting by the water enterprise may be overridden by funding agency.

Who pays?

There are two potential sources of BDS funding:

- grants from donor and public funds
- service payments by SWEs from direct revenue or loans from financing institutions

It would seem that the payment source would be perhaps the strongest driver of the contracting arrangement. Schemes with development and investment financed through funding agent may be suited to have BDS contracted through the financier. However, it prevents the water enterprise from building its own capacity through learning about contracting and getting to know the local BDS providers and it is likely to limit competition, leading to lower quality and higher costs. For these reasons, many publicly funded schemes use tripartite contracts with the funding agent, BDS provider and the SWE.

When possible, even where subsidies are provided, financial mechanisms should be designed to promote high-quality technical support with access

to contracts based on performance. Subsidies for scheme development could, in some cases, be channeled through SWEs to pay for services contracted from competitive BDS. This might be the case where a competent professional water enterprise is looking to expand services to neighboring communities or where a large government scheme is about to be handed over to a small water enterprise. Blending finances from both a SWEs and the Water Service Trust Fund or other funding agent can demonstrate strong commitment to the new development and reduce the public subsidy.

Where financing is coming directly and solely from the water enterprise, from savings, borrowing or revenues, contracting becomes much simpler. When water enterprises risk their own resources, there seems little justification for anything other than direct contracting. Small water enterprises should be expected to finance BDS as often as possible.

Quality assurance and regulation

Choices about the best methods of regulating the quality of support services will drive the development of services to a large extent. The drivers for quality come from three directions:

- from the schemes, which benefit from high-quality support services
- from water service boards and the regulator; well-functioning support improves the quality and sustainability of the service and increases the chances that service provision agreements will be honored
- from financing institutions; quality support enhances financial performance and sustainability

Instruments for enhancing and securing quality exist:

- regulation by contract; well-performing BDS secure repeat contracts at competitive rates
- performance incentives built into contracts, particularly when they attract some element of public subsidy
- benchmarking BDS performance
- third-party approval in ex ante impanelment or qualification or through review of services that could be done by the water board, Water Service Trust Fund or financing institutions

A range of approaches can be appropriate, with one caveat. With technical support services, health and safety standards must be maintained. It is strongly recommended that water services boards license or qualify technicians to ensure this happens.

Bundling services

Contract bundles for scheme development

The market for scheme development services is relatively well established. Where conventional construction contracts are used scheme development is commonly bundled into three contract packages:

- a 'preparation and transition' or 'support organization' contract to cover scheme preparation and the transition to a small water enterprise
- construction and operation contracts to support scheme construction
- construction supervision contract to support SWE management of construction

The scheme preparation contractor often called a support organization, needs to combine technical, financial and social development skills. The contract will be a complex mix of defined input and measurable results.

The construction contract may need to cover a range of activities:

- borehole production (drilling)
- mechanical and electrical goods and services (pumps, switching equipment)
- civil works (distribution, storage, structures)

In addition, each element may require some training for the SWE. Contracting options for the construction phase may comprise either:

- a full, turn-key contract in which a contractor delivers everything: drilling, mechanical and electrical work and civil works, and hands over the completed scheme

- three separate contracts with oversight from the water enterprise with the option of additional support through a construction supervision or project management contract

The construction supervision contract may be separate or may be bundled with the preparation contract, depending on the skills and capacities of supporting organizations.

Contract bundles for operation support

During scheme operation, BDS can be divided up by the frequency with which they are required and the technical skills involved. Contract bundles, which could be combined by some BDS, would comprise:

- operations—regular tasks, including accounting, technical and managerial training and routine maintenance
- management—periodic management review, which may be stipulated annually or periodically in the service provision agreement and include a financial, technical and organizational audit
- strategic planning—long-term planning by the water enterprise
- major technical support—highly technical input for replacing, rehabilitating or expanding the works
- major organizational support—arbitration and dispute resolution, capacity building and organizational development, which may be required periodically to maintain the health and well being of the water enterprise

Combining construction with operations

In some cases, water enterprises may prefer to contract out operation of new projects to operators who are responsible for constructing and operating the works. There are two contractual options in this case:

- a set time build-operate contract, where a construction and a limited service and management contract for operations are combined
- a full management contract, which transfers full or partial commercial risk to a contractor who constructs and operates a project for a management fee

Contracting parties

Direct and tripartite contracting for scheme preparation and support organizations

Where public funds are used for scheme development, there is a strong case for the funding agency, for example the Water Service Trust Fund, to contract the BDS. This enables economies of scope and scale, allows the funding agency to maintain control over how funds are spent, and enables the SWE to build capacity slowly. However, this approach limits the water enterprise and may constrain its capacity during scheme development. It is essential in tripartite contracting that the water enterprise has a clear role and takes on some supervision early as it gets to know potential service providers for operations.

When water enterprises contribute significantly to investment they may, justifiably, prefer to contract service providers directly or request assistance in contracting. The simplest assistance may be advice about experienced, qualified consortia. This information could be housed in a WSB or in the WSTF.

Framework agreements and direct contracting for operation BDS

In operations, the evidence suggests it is most effective and efficient for water enterprises to contract services directly. This encourages a flexible market where providers who perform well get repeat contracts. In the public interest, the water board should ensure the work is provided and quality is assured. This can be done through:

- a service provision agreement that may, for example, call for annual technical, financial and social audits
- licensing technicians eligible to work for SWEs
- periodic monitoring and auditing of BDS providers

A more rigid arrangement would see the water board enter into framework agreements with qualified BDS to compete for work from water enterprises. This is more complex and may raise the transactions costs on all sides. It also means that BDS is tied to the WSB operating budget and the financial health of the water enterprise, putting it at higher risk. In either case, operation contract (O1–O5) may be bundled if suitable BDS exist. A summary of contracting options is shown in table 2.

Table 2: Summary of contracting options

Contract Bundle	Principal Source of Finance	Contracting parties	Type of contract
P1: Preparation and support organization contract	Water enterprise	Water enterprise, support organizations	Variable blended performance and input contract
	Other (Water Service Trust Fund)	Tripartite: water enterprise, financier, support organizations	
P2. (option 1) Construction	Water enterprise	Water enterprise, support organizations	Performance construction contract(s)
	Other (Water Service Trust Fund)	Tripartite: water enterprise, financier, support organizations	
P2 (option 2) Construction and operations	Water enterprise	Water enterprise, support organizations	Performance management contract (variable risk transfer)
	Other (Water Service Trust Fund)	Tripartite: water enterprise, financier, support organizations	As above (but less likely)
P3. Supervision	Water enterprise	Water enterprise, support organizations	Input contract or output management contract
	Other (Water Service Trust Fund)	Tripartite: water enterprise, financier, support organizations	Input contract or output management contract
O1. Operations	Water enterprise	Water enterprise, support organizations or individual BDS with water board framework	Direct output contract or under framework agreement with water board
O2. Management	Water enterprise	Water enterprise, support organizations or individual BDS with water board framework	Direct output contract or under framework agreement with water board
O3. Strategic Planning	Water enterprise	Water enterprise, BDS with water board framework	Direct output contract or under framework agreement with water board
O4. Major Technical Support	Water enterprise and other financiers	Water enterprise, BDS provider or Tripartite: water enterprise, financier, support organizations	As for P1, 2 and 3
O5. Major Organisational Support	Water enterprise	Water enterprise, BDS with water board framework	Direct output contract or under framework agreement with water board

5 Facilitation of BDS Development

The role of facilitation

Traditionally donors and governments supported water enterprises by directly providing BDS through the district water officers in Kenya, or through permanent subsidies to non-governmental providers. Market development focuses on establishing a robust permanent market for BDS and seeks to remove governments and donors from direct support. This does not imply a government withdrawal, rather a shift in focus. As the old institutional arrangements are removed and the district water offices are closed, the BDS market will likely be too weak to function without support. Technical assistance and incentives will be needed

- to strengthen BDS
- to encourage new entrants into the market
- to build SWE capacity to use BDS effectively
- to encourage the market to reach the poorest and most remote water enterprises

Government should pull back from directly providing BDS to facilitating it.

The facilitating strategies

What the BDS market needs

What does the BDS market really consist of? The ideal BDS market contains:

- **supply** of qualified, affordable BDS
- **demand** from informed and encouraged water enterprises
- **transactions** that efficiently match supply and demand
- **environment** that stirs the growth and health of the entire market

In most markets weaknesses occur from time to time, when supply or demand outstrip the other or when transaction costs become too high. The job of a market facilitator is to design and deliver short-term interventions to address imbalances and weaknesses in the market. The nascent BDS market in Kenya will require significant support to build up all elements.

Considerable experience exists in developing BDS markets (Miehlbradt and McVay 2003). It includes using vouchers to reduce the service cost and promoting early adoption of new services. Demand has often been created by providing information to users. Responsive product development bundles different services or creates new products that target the latent demands of potential customers. Voucher experience in Peru and Ukraine were successful when combined with other services to augment capacity of BDS suppliers (Miehlbradt and McVay 2003).

Despite its potential, the present BDS market in Kenya faces constraints:

- **Supply constraints:** insufficient BDS suppliers in the market, suppliers lack information about the market, suppliers lack the required combination of skills
- **Demand constraints:** SWEs lack information about BDS, high costs in locating and negotiating with BDS, SWEs lack clarity on service provision contract details
- **Environmental constraints:** lack of clarity on responsibilities during transition period constrains market development, free poor quality services distort the BDS market, water enterprises cannot afford upfront cost of BDS, water enterprises and BDS are both risk averse (enterprises do not want to pay upfront, BDS do not want to start work without payment), and BDS providers are not near to the dispersed water enterprises

Strategies for supporting the development of the BDS market can be clustered:

- increasing and improving the supply of BDS
- increasing the demand for BDS
- increasing the efficiency of BDS transactions and market

These ideas are discussed in more detail in the sections following.

Increasing and improving BDS supply

In the early stages of sector reform, a big constraint is likely to be the absence of sufficient reliable and experienced BDS providers. Previously SWEs were able to access support through the district water office. This will no longer be available, and potential BDS may not yet have entered the market or have developed the appropriate skills and products. (An illustrative example relates to chartered public accountants, who can provide support to water enterprises in accounting and audit but yet may not have realized the scale of the market nor developed an approach to providing services to SWEs.) Some approaches are available to policy makers to help increase and improve the BDS supply in these early years. These are discussed briefly here:

Product development and commercialization. Potential BDS may have limited skills in developing products and may be unable to develop new products. They also lack experience and resources to carry out the market research. A facilitator, maybe a WSB or the National Ministry, may assist a number of BDS providers or develop generic products and marketing efforts. This will require a better understanding of the water business to share with BDS and facilitate collaboration and joint ventures among BDS to achieve economy of scope. Over time, successful BDS will increasingly do this themselves, but initially support will be required.

Creation of viable packages of support services and achieve economies of scope. In some cases it may be beneficial for a third party to assist water enterprises to package services so that BDS can achieve economy of scope, by supporting a single water business with several services, or of scale, by supporting several water businesses.

Networking and confederating BDS to reduce transaction costs. In the water sector there is clearly a need for multidisciplinary support. The elements of support in operations were separated in section 4, but there may be advantages to delivering some operation support in packages. Scheme development almost by definition requires simultaneously mobilizing many skills. Even within disciplines, among technicians, for example, there are advantages in collaborating, exchanging information, and subcontracting. Supporting the formation of confederations or networks, probably within the jurisdiction of a single WSB, could greatly enhance the ability of BDS to work together and experience mutual learning as the BDS market grows.

Increase in available skills by building supplier capacity. Technical assistance and training, sometimes coupled with financial support, are effective at stimulating BDS provided they enter a market with sufficient potential demand and ability to pay for their services. Technical assistance and training should cover technical skills and business skills, marketing, pricing and management. They can be tailored to support the developing appropriate services, such as supporting CPAs in developing a regular accounting and auditing service. A challenge to policy makers is to find ways to deliver technical assistance sufficiently to ensure impact and avoid selective development within the market.

Growth of social enterprises. Relevant in some parts of Kenya and for stimulating the supply of community development, management and strategic planning skills would be facilitating the growth of social enterprises. Not-for-profit social organizations could be supported so that they can provide BDS while retaining their social agenda and not-for-profit status. Not-for-profits might be interested in establishing a subsidiary business to facilitate the entry of others into the BDS market. The challenge is to marry a financially sustainable market for BDS with the not-for-profit social agenda. One constraint for existing not-for-profits may be a lack of capital or financial resources and an unwillingness to charge market rates for their services. In some poorer regions it may be worth exploring some subsidies through these potential BDS, either directly or by issuing vouchers to water enterprises. Then they can access BDS within a market, but at less than market rates.

Increasing the demand for BDS

There is demand for high quality BDS. Evidence from consultative efforts suggest some SWEs value professional support services. However, as the structure of the sector changes there will be a need to build awareness of the new situation and to help water enterprises access BDS without excessive costs to identify them and assess their quality. A number of interventions may be useful.

Make information available: provide information about potential services to water enterprises. To help water enterprises find BDS several simple interventions may be used. Water services boards can establish a clearing house or directory of potential BDS. This could be coupled with a voluntary quality assurance scheme. For technical services this could be required, and a feedback system would enable the enterprise to rate the services they receive. Other means of disseminating this information could be the mass media (radio), or working through an association of water enterprises.

Increase collective purchasing power: take collective action, through clusters or water project networks. Helping water enterprises form clusters or wider associations can improve the efficiency of the market by enabling water business to purchase BDS in bulk. This could also facilitate information exchange among water enterprises and the water services boards. While forming a group can be time consuming the existing core of small water enterprises could fairly easily be supported in establishing an association, possibly with regional arms in each water board. This association, likely a voluntary one financed through a small subscription, would form the nucleus for growing water enterprises as reforms take shape.

Demonstrate BDS value: provide demand subsidies to purchase BDS. To achieve public benefit and ensure that all water enterprises have access to good services, a demand subsidy could be used, particularly in the early stages of market development. The advantage, compared with a supply subsidy using free services offered by a public agency, is that water enterprises retain control and build their own capacity. The subsidy helps the water enterprise pay for services on the open market and it supports growing viable BDS. Options for delivering the subsidy would need to be explored. Vouchers to pay for BDS could be redeemed from the public sector, the Water Service Trust Fund or a WSB.

Regulate the purchase of BDS by requiring regular financial and technical audits. The requirements of the service provision agreement and the WSB for the SWE can be used to stimulate demand for professional BDS. If the service provision agreement requires an annual financial, technical and social audit, the water enterprise would be encouraged to find BDS and to pay for it. In the long run water enterprises will come to see these as vital management tools, but a regulatory requirement can be used to stimulate demand and secure the minimum information the water board needs to assess the operating health of the water enterprise.

Increasing transaction efficiency and market

The overall environment in which BDS are delivered and purchased will affect market success. Reducing transaction costs, increasing access to information and regulating quality in BDS will ease finding and purchasing services. The cost of supplying services will be reduced. The market will be enhanced by these interventions.

Assure quality: develop impanelment or certification processes. By certifying capability, confidence in the quality of services can be increased and result in greater purchase of services. By regulating the service supply, the constraint on market size in the short run could help aggregate contracts and increase provider viability.

Standardize transaction costs of contracts and other processes. The upfront costs of BDS can be reduced through facilitating actions to stimulate the BDS market. The cost of developing contracts can be greatly reduced by using standard contracts, providing some comfort to the purchaser. It may

be useful to partially support high transaction costs during the initial phase until a BDS market is developed. The development of standard services through certification processes can be considered analogous to franchising.

Overcome Information and marketing constraints: support BDS marketing including establishing clearinghouse mechanisms. A simple but effective intervention may be for water services boards to establish a clearinghouse where all interested BDS can record their details and advertise their services. This 'one-stop shop' or 'yellow pages' can serve as a reference for water enterprises. Feedback from water enterprises could be added, common with internet auction and sale sites, so BDS that perform well gain better credentials.

Who is the facilitator?

In many cases the water services board has a strong and important role, but others may step in. Figure 7 distills the options for facilitation. The potential facilitators are described here:

Water services board. The water services board can, through service provision agreements, require water enterprises to obtain certain BDS. Its regional mandate to supervise and its proximity to the water enterprises place it favorably to provide transaction support. It can facilitate supply interventions to increase BDS capacity in its jurisdiction.

Funding agencies. Three main funding agents are envisaged with the sector reform: the Water Services Trust Fund, NGOs who continue to play a role in funding, and possibly, commercial finance institutions. These institutions have vested interests in BDS, since these will increase SWE sustainability. They may include BDS purchase requirements as conditions to their financing.

Associations of small water enterprises or BDS. By aggregating contracts, small water enterprise associations can increase the purchasing power of water enterprises and affect demand. They can also share the cost of developing new products or of marketing across their entire membership and thus help reduce entry cost for BDS.

Fig 7: Options for facilitation

	MARKET INTERVENTION	POTENTIAL FACILITATOR
SUPPLY SIDE	**Product Development** Develop new products to water enterprises or product bundles that decrease costs (economy of scope) **Increase Capacity** Networking and confederating BDS and training courses to increase knowledge among BDS or expanding the BDS pool by creating social enterprises	*Water Service Board* can host training programs for suppliers of BDS *Professional bodies* (institute of Certified Public Accountants of Kenya for CPAs) can develop new products and train suppliers *Funding agencies:* commercial banks, Water Service Trust Fund can help develop targeted financial capacity
ENABLING ENVIRONMENT	**Quality Assurance** Develop empanelment and certification processes to contain the risk of BDS purchase **Transaction Costs** Standard forms of contract and work scope to help standardize services provided **Information and Marketing** Develop clearinghouses and other marketing to reduce the transaction costs of finding quality BDS	*Water Service Board* as a regulatory body and central information source *Funding agencies* as agents requiring purchasing quality of BDS
DEMAND SIDE	**Increase in information available to enterprises** Increased information about BDS availability and benefits will increase the chances that enterprises use BDS **Increase in collective purchasing power** Developing clusters and water project networks by forming associations will increase the demand for BDS **Demonstration of BDS value** Provide demand subsidies for purchasing BDS in the short run to demonstrate their use or regulate the purchase of BDS by requiring specific BDS reports and processes	Associations of small water enterprises can provide for collective purchasing and knowledge exchange on effective BDS The Water Service Board or funding agency may require purchasing BDS for regulatory oversight or to maintain and monitor loan performance

6 Conclusions

The rural water supply sector in Kenya has high levels of user investment. Rural communities often mobilize substantial financial contributions toward the investment costs of rural water supply schemes. Communities generally seek technical assistance from NGOs or from government staff who have, until recently, been based in district water offices. In a few cases, technical support comes from the private sector. Additional financial contributions often are provided through the government's own rural water supply program or from NGOs. About 3,000 community organizations and small private providers account for water supply schemes in Kenya. Some rural schemes appear to have been financed with no public subsidy; many have been running quite successfully for years.

Reform of the rural water supply sector has been under way for some time, transforming water supply and water resource management institutions. The reform is to improve the quality and sustainability of water supplies by increasing the autonomy of rural water supply providers. The role played by the providers in developing, managing and operating projects is to be separated from regulation, now the mandate of the Water Services Regulatory Board, and oversight, from the seven autonomous regional water services boards, while government funds for investment will flow through the Water Services Trust Fund.

In a parallel development some domestic financing institutions have expressed interest in entering the rural water supply market to offer access to credit and related financial services for schemes that can clearly demonstrate their long-term viability. This reflects the robust nature of many of these schemes, where managers, usually drawn from within the community, are able to set and levy water user charges sufficient to secure the long-term financial well-being of the project and often hire private, professional technical, financial and managerial support. These schemes resemble small enterprises. It is clearly the intent of the reform that this should become the norm: water enterprises with sufficient management skill to function autonomously within the regulatory framework provided by the Water Services Regulatory Board and the water services boards.

These SWEs need technical, financial and managerial support to develop their businesses. To ensure their long-term sustainability and health, business development support needs to be delivered in a way that the water enterprises have ready access to quality, affordable professional services throughout the lifetime of the schemes.

Much of the professional capacity already exists, within the district water offices, NGOs and private businesses in the districts. Many water projects hire private technicians, accountants and management consultants to assist with planning and operating their schemes. As the district water offices are downsized the WSBs and Water Services Regulatory Board will help ease the transition of staff out of the district water offices and build a market where the needed services are available from several private and not-for-profit providers. The Water Services Regulatory Board, WSBs and the Water Service Trust Fund will have to make it possible for BDS in the regions and districts to grow.

This report has looked in detail at what services are required, explored the institutional options for its organization and discussed the role of new public institutions in promoting the growth of a viable long-term market in BDS for small water enterprises. It analyses the current situation and consulted widely; it profited from a national workshop of small water enterprise managers and operators held in October 2005, hosted by Athi and Tana Water Services Boards.

7 Recommendations for follow up

We recommend the following immediate actions to start sustained business development services to the rural water supplies in Kenya.

- ***Develop model contracts.*** Model contracts for BDS can improve the pace and quality of implementing new schemes and providing support services to existing schemes despite the disruptions likely to arise when the district water offices are dismantled. Model contracts can be developed around the work identified in this report, with a priority on developing high-quality contracts for scheme development preparation, implementation and transition. The water services boards can play a key role in developing model contracts, which can then be collated and coordinated nationally. Water services boards that move ahead rapidly in doing this can facilitate others whose progress is less rapid.

- ***Promoting the federation of small water enterprises.*** The many water enterprises in Kenya are a valuable resource for the government as it moves ahead with sector reforms. Successful water enterprises can provide valuable input and feedback to proposals. Water enterprises can provide support to each other and to nascent community water supply schemes. They could provide BDS, particularly in business planning, strategic planning, training and community management. To facilitate this, an umbrella structure or federation is needed. A federation would most usefully be anchored at each of the seven water services boards. Water services boards can facilitate establishing such a federation. The first step would be to inventory and call together active small water providers to initiate the formation of a new federation.

- ***Impaneling BDS.*** A wide range of organizations provide BDS, not only traditional engineering contractors and NGOs, but CPAs, management consultants, neighboring water enterprises, and local and national technical institutes. Water services boards can create a clearinghouse where water businesses can identify and contact potential BDS. The water services boards should call together potential BDS to assess their interest and capacity to participate and develop an approach to impaneling providers.

These immediate, short-term actions, along with the longer support needed to facilitate BDS, cannot happen in isolation. At early stages, while both the supply of services and the demand from water enterprises is constrained by the nascent reforms, market development and current scheme development and operation support may require additional financing beyond that available from the water enterprises themselves and water organizations. BDS development will be greatly enhanced if additional funding can be identified to support market development.

8 References

[DFID] Department for International Development. 1998. *Guidance Manual on Water Supply and Sanitation Programs*. London: DFID.

[GOK] Government of Kenya. 1999. *National Policy on Water Resources Mangement and Development, Sessional Paper No 1*. Nairobi: Kenya. Republic of Kenya.

[GOK] Government of Kenya. 2002. Water Act 2002, *The Kenya Gazette Supplement No. 107,* Nairobi: Kenya. Republic of Kenya.

[JMP] Joint Monitoring Program. 2004. *Meeting the MDG Drinking Water and Sanitation Target: A Mid-Term Assessment of Progress*. Geneva: UNICEF and WHO.

Lockwood, H. 2002. *Institutional Mechanisms for Community-managed Rural Water Supply and Sanitation Systems in Latin America.* EHP Strategic Report No. 6.

Lockwood, H., A. Bakalian, and W. Wakeman. 2004. *Assessing Sustainability in Rural Water Supply: The Role of Follow-up Support to Communities.* Literature Review and Desk Review of Rural Water Supply and Sanitation Project Documents. Washington, D.C.: Bank-Netherlands Water Partnership, World Bank.

Miehlbradt, Alexandra O., and Mary McVay. 2003. *Developing Commercial Markets for Business Development Services: A BDS Primer.* Turin, Italy, Small Enterprise Development Program, International Labour Organisation.

Mehta, M., and K. Virjee. 2003. *Financing Small Water Supply and Sanitation Providers: Exploring the Microfinance Option in Sub-Saharan Africa*. Working Paper, Water and Sanitation Program–Africa. Nairobi, Kenya: World Bank.

Mehta, M., and K. Virjee. 2005. *Credit Assessment Tools for Community Water Projects.* Working Paper. Water and Sanitation Program–Africa. Nairobi, Kenya: World Bank.

World Bank. 2004. *Rural Water Supply and Sanitation Toolkit for Multi-Sector Projects*. Washington: DC. World Bank,

WSP-Af. 2004. *Financing community based water supply projects – summary of findings*. WSP-AF Study Report. Nairobi: Kenya. (mimeo)

[WSTF] Water Service Trust Fund. 2005. *The Community Project Cycle*. Draft report. Water Services Trust Fund, Nairobi, Kenya

Annex: Workshop Report: Support Services for Community Water Projects in Kenya

Background

The Ministry of Water Resources Management, the Athi and Tana Water Services Boards and WSP-Africa are currently developing new thinking on how to support community rural water supply projects within the reform of the rural water supply and sanitation supply sector. WSP-Africa has been exploring potential models for delivering appropriate support services, particularly in the operating community schemes, especially for making support sustainable and promoting the long-term sustainability of the schemes.

The scope of this work includes examining

- what services are needed
- who can deliver them
- what current arrangements can be used and what needs to change
- how these services can be financed, contracted and assured
- what existing institutions can promote developing a viable market for these services

The workshop

The Athi and Tana Water Services Boards hosted a workshop on October 6–7, with support from WSP-Africa. The objectives of the workshop were

- to refine the understanding of what support services communities look for
- to refine the understanding of what the market for support services currently looks like
- to explore possible institutional models for sustained service delivery

About 50 people attended the workshop. Participation was drawn from

- Community rural water supply schemes (2 participants from each of 10 schemes)
- Water Services Boards
- Water Services Trust Fund
- District water offices
- Private service providers (goods and services)
- NGOs active in district rural water supplies
- K-Rep Bank and K-Rep Advisory Services
- WSP-Africa

Summary of discussions

Background

Aspects of the government of Kenya reform program include

- A focus on the sustainability of community rural water supplies, where sustainability suggests attention to long-term financing, carrying out of regular and effective operations and maintenance, and capacity for strategic planning
- A focus on partnership, suggesting that many skills are needed to support rural water supplies focused on communities, and it is unlikely that communities can manage their systems in the long run without access to reliable external support
- A focus on using limited public funds to leverage maximum increases in access; that is, a focus on efficiency and output

Coupled with this there is growing interest from the domestic financial market to invest in rural water supplies. K-Rep Bank, for example, is currently looking into developing a new line of credit for rural water supply projects. This should also help to push rural schemes towards strengthening the quality of financial and management planning.

If the sector is to become truly self-sustaining, Kenyan communities need to be strongly empowered to ensure that their project schemes are robustly managed for the long term. It is essential to improve the flow of information and support so communities can access whatever financial and technical assistance is available under the new arrangements.

Community rural water supply schemes

Ten community rural water supply schemes were presented to the workshop. Some key messages came out of the presentations. Features of all these schemes include

- registration of the entity running the scheme
- robust management structures, with a regular process of decision making, including annual general meetings for all members
- attention to the commercial operations, including formal billing and collection—at least half the schemes generated sufficient surpluses to invest in expansion and improvement
- regular reporting, including annual financial audits
- technical support provided from a range of external sources, including the district water office and private firms and individuals, but usually with the district water office advising the committee on how to access and make use of technical support

Challenges schemes faced were discussed and covered:

- Technical: Poor planning; inappropriate infrastructure; high electricity bills (see box A1)
- Social: Interference by non-members; community conflict; lack of community awareness programs; inadequate skills in wider poverty reduction; interference and sabotage by men in women-led schemes (see box A2)
- Financial and management: Illegal water connections; member defaults; general financial difficulties
- Environmental: Reduced flow of water from natural causes and human activities at source (see box A3)

Support providers

Support is currently provided by both public and private sectors. The district water offices have helped in scheme development and have provided

Box A1: Capexus Opex

Many community schemes face a problem during scheme start-up in selecting pumping equipment. Generally the most efficient pumps or those using innovative technology, such as turbine pumps, are expensive and the initial costs may be prohibitive.

However, in the long run this initial high investment can be rapidly recouped through lower operating costs, leading to massive savings. Access to better information and to credit may enable communities to access such technology.

limited support to operating schemes. The biggest constraint for the district water offices has been shortage of funds; many schemes have paid for transport and daily costs to enable the district water officers to provide the needed support.

Technical assistance, training and support are also provided to a number of schemes by private providers, including national goods suppliers and local technicians and engineers. Local private partners are highly valued because they are close to the schemes and often develop long-term relationships the same way the district water office can. Retailers can provide credit for schemes when they are first developed; deferred partial payment for expensive items, such as pumps can help schemes get established.

All of the schemes represented obtained financial services from accountants for regular accounting and regular or annual audits.

What support is needed?

After the presentations and discussion, the group split into five working groups to discuss what support would be required to enable community rural water supplies to operate effectively over a project's lifetime. The conclusions illustrate a strong consensus about the support needed. The groups discussed broadly who should pay for services and how they could be provided.

General ideas

New ideas from the discussions:

- Much greater focus than previously on permanent support in project operation
- Audits and strategic plans for management, moving away from more traditional reactive support
- Increased use of small local, private and NGO services, with water boards helping assure quality
- Adding business planning and financial assessment to scheme development

Two support phases

Fundamentally the workshop recognized two support phases, which would vary.

Scheme development creates a viable, sustained, community rural water supply with technical skills delivered in a coordinated program to enable communities to build social capital and develop a water supply using a least-cost and appropriate technical approach with a sound financial framework.

The work includes

- community mobilization—includes initial planning, scheme identification, arrangements for community management and decisions, financial commitments
- entity formation—includes legal registration where required

Box A2: Education and awareness in the community

Acknowledgement was widespread that education and outreach to community members is not always as strong as it could be. Lack of understanding about the scheme within the wider community can lead to distrust, abrupt changes in the skills available when new committee members are elected and conflicts that open the way for political interference. These were considered to be the biggest threats to successful community rural water supply.

Box A3: Supporting Innovation in Community Managed Schemes

Some schemes had included innovative approaches, such as catchment management planning and rainwater harvesting. There was general agreement that most communities need specific support if they are to include components considered additional to the basic requirements for water. This would apply, for example, to environmental management, innovative technology, and water quality monitoring.

- feasibility planning—identifies scheme scope and cost
- financial assessment—establishes scheme financial basis, including long-term projections for tariffs
- business planning—covers scheme operation, including management arrangements, staffing, establishment costs, financial management arrangements
- design
- procurement of construction contractors—may include some community procurement
- construction—includes supervision
- transitional support—eases the community from scheme development into operations, includes technical support or commissioning and warranty for key scheme elements

Second is the much longer, indefinite, operational phase. Support needs to be sustainable, where communities can access and finance professional support from many providers:

- financial services—accounting, audit
- ongoing training—technical, managerial
- technical services:
  - regular technical audit to assess operations and maintenance
  - routine maintenance
  - periodic, programmed rehabilitation and replacement
  - planning and implementation of system expansion
- strategic planning
  - financial projections and planning
  - technical projections and planning
  - development of 3, 5, and 10-year strategic plans
- community support
  - organizational audit—assess community and management processes
  - arbitration and support—deal with failures in either community or management processes
- regulatory interventions—ensure the scheme meets public policy requirements

Business Development Services

The support described as can clearly be called 'business development services'. K-Rep Advisory Services provide BDS to small enterprises in many sectors. They commented that this sector is clearly no different and would benefit from professional services.

Many service providers

Potential service providers were identified. It was particularly interesting that scheme managers were aware that potential service providers extended well beyond the existing district water offices.

Payment

Participants were clear that communities should pay for professional assistance in operations and that water boards can create incentives for communities through the service provision agreement. The Water Service Trust Fund and donors should subsidize scheme development where appropriate.

Quality assurance

- qualifying service providers, where there are many
- licensing, particularly for technicians
- using universal standards to assess work quality
- preparing model terms of reference and bidding documents
- monitoring and evaluating schemes and service providers

Next steps

- Prepare and distribute a brief workshop report—this report.
- Finalize a more detailed report on business development services for rural water supplies in Kenya, incorporating findings from the workshop and discussing facilitating development of a BDS market.
- Water providers to share the workshop recommendations and report with stakeholders who can facilitate and fund back-up activities, for example, in the Ministry of Water and Irrigation, water services boards, Water Service Trust Fund and donors.
- Hold another small stakeholder workshop before the end of the year.
- Water providers to work with water services boards and the Water Service Trust Fund to identify a program and activities to support BDS development.
- Water providers, K-Rep, Athi Water Services Board incorporate these findings in their work on microfinance for small water projects and to seek possible donor funding for BDS development in Kenya for small water enterprises.

Africa Region
World Bank Hill Park Building
Upper Hill Road
Nairobi
Kenya

Phone: +254-20-3226306
Fax: +254-20-3226386
E-mail: wspaf@worldbank.org

WSP MISSION

The Water and Sanitation Program is an international partnership for improving water and sanitation sector policies, practices, and capacities to serve poor people
.

WSP FUNDING PARTNERS

The Governments of Australia, Austria, Belgium, Canada, Denmark, France, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States America, the United Nations Development Programme, The World Bank, and the Bill and Melinda Gates Foundation

CREDITS

This report is prepared by a WSP-Africa task team: Meera Mehta, Kameel Virjee, Barbara Evans and King'ori Wathobio. The report was peer reviewed by Wambui Gichuri (WSP), David Ashiagbor (IFC), and Moses Banda (K-Rep Bank).