Moving beyond community towards utilities

Management models for delivering rural water services

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WaterAid

31/10/2018
Session objectives

Share models for rural water supply management

Share factors that enable models to scale
Selecting appropriate management models for piped water supply services in rural and small-town contexts

A decision-making resource

HOT!

https://washmatters.wateraid.org/management-models
Background
Global trends and shifts in rural water supply

• Greater connectivity between populations fueling demand for better services

• Rapid urbanization > small towns and rural growth centers

• Starting to see technology transition trend – handpumps --> solar

• Government aspirations for a shift towards piped water supply
The SDG challenge

2015: At least 5% of the population did not have **basic access** in 93 countries

**Fig. 15** Progress towards universal basic drinking water services (2000-2015) among countries where at least 5% of the population did not have basic services in 2015
Functionality and levels of service

Handpumps

- Functional: 6,319 (22.3%)
- Partially functional but in need of repair: 4,265 (15.0%)
- Not functional: 16,972 (59.8%)

Piped water

- Functional: 36.8%
- Partially functional but in need of repair: 17.5%
- Not functional: 44.1%
- No longer exists: 17.5%
Enabling environment

Responsive institutions and processes focused on sustainability

- Gender and Social Inclusion
- Institutional Arrangements
- Sector co-ordination and Integration

Cross Sector Integration

- Education sector
- Health sector
- Inclusive, lasting WASH

Achievement of SDG 6
## Typology of management arrangements

<table>
<thead>
<tr>
<th>Basic Community Managed</th>
<th>Community Managed Plus</th>
<th>Local Government</th>
<th>Public Utility</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBM1</td>
<td>CBM2</td>
<td>CBM3</td>
<td>CBM4</td>
<td>LG1</td>
</tr>
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<td>Local gov delegation to com operators</td>
<td>Local gov delegation to priv operators</td>
<td>Public utility managed</td>
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<td>Owned</td>
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*WaterAid*
Presentations
Group work
Groupwork – share

- Implementers – find a grid

- Audience members join an implementer

- Implementers – identify the context you work in

- Identify the service options your management model applies to

- Identify who is responsible for performing what function in your management model
Discussion

• What factors enable your model to function?

• What factors inhibit your model from scaling?
Selecting appropriate management models for piped water supply services in rural and small-town contexts

A decision-making resource

https://washmatters.wateraid.org/management-models
RWANDA – Local Government Delegation to Private Operators
Local Government Delegation to Private Operator - Rulindo District

- Gravity-Fed & Grid Powered Pumping up to 400m
- With total of 63 separate systems
- Serving 300,000 people
- Implementing National Policy
- Originally two clusters now only a single operator
Role of Water For People

• Understand Full Life-Cycle Costs
• Propose Tariff
• Support Building of Trust in contract model
• Establish customer feedback platform for fault reporting
• Build the capacity of POs to understand the viability of their business using AWCM
What is the Model

- Private Operator for day to day management covering O&M
- Private Operator pays 10% of fees as Royalty
- District provides CapManEx
- Contract for 5 years
- Performance monitoring
Tariffs and Costs

- Initial district-wide tariff now superseded by national standard
- Current tariff makes grid-pumped schemes challenging
- Where O&M stops and CapManEx starts approx. $500
- Royalty not sufficient to cover CapManEx, needs additional direct $’s for this and extensions
- Incentives to increase household connections very limited
Scaling the Model

• This is the national model for systems not directly managed by WASAC
• There are questions around tariff and balance of costs which need deeper understanding
• Choices around the size of “mini utilities” and numbers of operators in a district are also important
Regional Water Authorities for the Sustainable Management of Piped Water Systems in Small Towns and Rural Areas in UGANDA
The Regional Water Authority Model

- Management model tailored for piped water schemes supplying small towns and rural areas
- Turned 6 Umbrella Organisations created between 2002 - 2014 to provide O&M backup support services into
- Regional Water Authorities (RWAs) in 2017 to operate and manage “gazetted” schemes with emphasis on preventive maintenance
- 434 RWAs supplying 2.5
The Model

- Local scheme operators directly contracted and supervised by the RWAs
- Use of electronic billing and revenue collection systems
- Metering of unmetered schemes – payment by consumption
- Investments in repairs, extensions and more connections
- Performance monitoring by the Ministry through Urban and Regulation departments
Achievements

• Increasing number of connections (by more than 1,700 (21%) since July 2017)
• High demand for new connections
• Trained over 300 committed operators
• Decreasing Non-Revenue Water from 44% - 33%
• Revenue collections up by 51% for the first group of schemes (October 2017 to June 2018)
• Increase in revenue collections - total collections exceeded UGX 500m ($132,825) in August 2018
• Collection efficiency: average 94% in quarter 4, mainly using electronic systems
• 83% of the collections are being made using electronic systems (Ezee Money)
• On-going metering to improve efficiency and influence responsible water use
• Revolving Fund accessed and used
Achievements
Use of Collected Revenue

- UPMIS Analysis for February 2018, 47 Schemes -

30% for:
A - Investments
(Back Payments to Revolving Fund)
B - Umbrella
Running Costs
(Independence from Donor Funding)

- Up to August 2018; 90 projects approved, 47 completed, > 80% of the initial seed funding of UGX 2.3bn spent ($610,995)
Role of IRC

- Support the Coordination Unit of the RWAs in the Ministry to organise learning among the 6 RWAs
- Within the Hilton Partners Hub, support the Mid-Western RWA to:
  - Create community awareness and political buy-in of the RWA Model
  - Document and share best practices of the RWA
  - Organise learning activities – meetings, journeys, dialogues
  - Improve customer relationship management
  - Improve levels of service
  - Increase water quality management and compliance
  - Improve performance monitoring and develop asset inventories
  - Address tariff and cost issues
Challenges

- Costs of initial/basic investments - metering of unmetered schemes or water treatment units
- Staffing and logistical resources (transport)
- Finances
- Aging Infrastructure
- Water quality concerns
- Deferred maintenance that needs external support
- Limited monitoring
Thank you for supporting water sanitation and hygiene services for life.
Ethiopia

Rural Water Boards for multi-village schemes

Bethlehem Mengistu
Country Director – WaterAid Ethiopia

31/10/2018
Grouping of community WASHCOs into Rural Water Boards
Where is the Rural Water Board model applied?

Rural settings

- Large spring fed gravity schemes in Oromia Region and some pump fed schemes in Benishangul
- Mixture of public tapstands and private connections
- WA supported schemes serve over 460,000 people
How does the Rural Water Board model work?

- Each village has a WASHCO that is elected by the community
- Each WASHCO appoints one member to a board
- The board elects an executive committee
- The executive committee contracts a team of skilled employees to provide technical and management support
- Separates service provision (the Water Office) from governance (The Board)
Tariffs and costs: Ticho example

- Scheme is fully metered facilitating accurate billing
- Tap attendants sell water to customers at fixed rate ($0.01 per 25 liter container)
- Tap attendants pay the water office for the bulk water they consume keeping 30% of revenue as their commission
- Domestic and commercial metered connections pay rising block tariff ($0.35 - $0.55) per cubic meter
- Payment rates at impressive 98%
- Ticho Water Board has grown revenue by expanding system, adding more private connections
- More revenue from multiple uses: public laundry, cattle watering, public shower blocks
- Ticho Board has accumulated savings of $38,000 since 2014
- Hitosa Water Board savings of $200,000. Robe-Melliyu Board has $160,000
- Funds sufficient to cover major capital maintenance
Role of WaterAid in establishing the model

- Co-designed the Rural Water Board model with the Government of Ethiopia in early 1990s
- Advocated for the necessary legislation to enable the model
- Developed 20 year business plans and tariff model for full cost recovery
- Accelerated household connections through provision of seed money for revolving fund
- Trained operators and provided billing software on larger schemes
- Supported water office to establish complaints box
Going to scale

Oromia Regional Government have institutionalized the model and taken it to scale

Success / enabling factors

• Legal recognition of the model

• Tariff structure and economy of scale enables full cost recovery

• Clear incentives for good performance

• Lack of political interference

• Ongoing WaterAid mentoring
Challenges

• Autonomy of the RWB from zone (esp. tariff setting)

• Strongly factoring in WRM at design stage

• Increasing demand places pressure on boards to extend networks – risking leakage and pressure loss

• Finite water resources necessitate demand management strategies
Thank you!