

# Business Planning Tool for Professionalized Rural Water in Uganda

## Whave Solutions March 2024

### **Introduction and background**

The Ministry of Water and Environment (**MWE**) of Uganda is currently activating the Operation & Maintenance (**O&M**) framework for rural areas, initially by promoting applications for gazetting of new District Water Boards focused on rural water O&M.

In recent government meetings it was suggested that applications should be accompanied by business plans which outline the case for financial viability of the Area Service Providers (**ASPs**) procured by the Water Boards, alongside the finance required to support their management by Water Boards and District Water Offices and MWE Regional Centers.

Whave offered to provide information useful for these business plans on ASP and other costs, based on its research in recent years into 24/7 assurance of hand-pump functionality. The MWE Regional Center team-leader asked for this to be provided as a template for the Water Board applications in 40 districts where roll-out is ongoing, including the 16 districts Whave is supporting and the 15 districts Water for People are supporting, and others.

The Regional Center team-leader suggested that it would be useful as a basis with varied applications reflecting different numbers of hand-pumps in the different districts and different service fees set by the district councils. This document presents a template which is flexible to varying conditions.

Whave is committed to supporting MWE, District Local Governments (**DLGs**) and the WASH stakeholder community in rolling out the O&M Framework nationally and developing a viable rural water structure. Funding to Whave from Conrad N. Hilton Foundation, Morpho and Siemens Stiftung, has focused on this collective process. Whave's research on feasibility and cost of 24/7 functionality assurance for hand-pump-dependent communities (our "pilot ASP" role) has provided a key evidence base for this template business plan.

Whave is now principally acting as a support consultancy and Technical Assistance organization for roll-out of the O&M Framework and for rural water structuring, assisting MWE Regional Centers and DLGs in rural water gazetting, assisting the new Water Boards, and training/mentoring new ASPs. Our initial focus is in 17 districts in regions 2, 3, 4,5; however we are available to the MWE Regional Centers and roll-out entities in other districts and regions.

## **Are ASPs servicing hand-pumps, viable entities?**

The cost of providing service to small rural communities using hand-pumps is not well known. Whave has “action-researched” this cost in four regions of Uganda in more than 1,000 communities in 10 districts, with emphasis on preventive maintenance and ensuring all breakdowns are repaired by-the-end-of-the-next-day, in other words, 24/7 service delivery. The number of communities serviced per district has averaged 100 (always in all sub-counties and always working with HPMAs) which represented only 10 to 15% of all handpumps, therefore we suffered from poor economy of scale. The overall finding has been that cost on average, at low economy of scale, is 1.8 million UGX, and we can confidently predict it reduces to 1 million UGX once a whole district is serviced, at much better economy of scale. A community of 50 families sharing a hand-pump can collect more than 1 million UGX in service revenue, if the average payment is 2,000 up to 3,000 UGX per month; these are generally accepted as affordable fee levels.

The overall conclusion therefore is that hand-pump ASPs can achieve breakeven financing, recovering cost from fee revenue.

The viability of hand-pump ASPs does have other challenges. If the government water service pricing and gazetting system is not developed and enforced well, it is likely that communities will be promised repairs at different prices or free-of-charge by different entities operating in the same area as the gazetted ASP, with the result that fees will not be possible to collect. The challenge of viability is a governance challenge, not a cost-recovery challenge.

If the ASP is gazetted hand-pumps only, the finding is that viability is possible as outlined: 1 million UGX/year/hand-pump in cost, and more than 1 million UGX/year in revenue. However, this is a delicate balance and many problems can arise to derail the ASP viability if hand-pumps are its only business. If the ASP is gazetted piped water systems in the same area, then the business case is stronger, because revenue surplus earned from piped water users is available to fill gaps in revenue collection for hand-pump communities. The same question arises: can gazetting arrangements be developed and enforced suitably to allow an ASP to operate rural piped schemes, so that cross-subsidy strengthens its viability?

## **Features of the business plan template**

The table below shows an example of the template’s outputs focused only on hand-pump servicing, modelling a district with 1,000 hand-pumps. The template is an easy-to-use calculation tool which works with different numbers, for example districts with fewer or

more hand-pumps, including rural piped systems. It is flexible to include other water point source technologies.

Single District (1000 hand-pumps) using subscription	Roll-out finance: Years to breakeven: <b>5</b>		On-Going Costs per year	
	TOTAL OVER PERIOD			
Water Board operational	Capacity Building / TA	250	mUGX	20 mUGX/yr
MIS data collection, verification, analysis	Capacity Building / TA	750	mUGX	40 mUGX/yr
ASP breakeven finance (incl CapEx and CapManEx)	Total over period	267	mUGX	0 Breakeven achieved
<b>ASP breakeven finance (incl CapEx and CapManEx)</b>	Total over period	<b>70,134</b>	<b>USD</b>	Cross-subsidies assist
CapEx for Rehabs (cost adjusted: CapManEx in tariff)	Total over period	1,000	mUGX	0 CapManEx is
<b>CapEx for Rehabs (cost adjusted: CapManEx in tariff)</b>	Total over period	<b>263,158</b>	<b>USD</b>	included in Service Fee
<b>Total mUGX</b>		<b>2,267</b>	<b>mUGX</b>	<b>60 mUGX/yr</b>
<b>Total USD</b>		<b>596,450</b>	<b>USD</b>	<b>15,789 USD/yr</b>
Source of funds	International Donor grants are available. Conditional Grant Development category assists with Rehab CapEx			CG NWR (25%) for co-ordination, maintenance, mobilization, water office operations, sanitation/hygiene
<b>Service fees:</b>	<b>3,000</b>	<b>UGX/month/domestic user</b>		
ASP service cost once scaled (end of period)	1,084,329	UGX/year		
ASP revenue from service fees at end of period	1,140,000	UGX/year		
Financial sustainability of ASP at end of period	Positive			

Whave is ready to provide introduction sessions for entities supporting the O&M roll-out (including emerging ASPs) and wishing to use or study the Excel tool. Please contact us.

The tool assumes that roll-out cannot take one day in any one district. It assumes that a period of some years is needed during which an increasing number of hand-pump-communities are enrolled each year into the O&M Framework, until all are included.

Why does this process take more than a day and even years? It is feasible for a Water Board to procure an ASP and then mandate enrollment of all communities. However, it is well known that sensitization of several hundred communities is expensive and time consuming. A more cost-effective and practical approach will be to progressively service communities requesting services from an ASP.

In the first years, many communities will not need a repair, rehab, or new source, and there is no advantage in hurrying them into the new O&M structure. Each one of these will at some time need a major repair, and at this point the services of an ASP will be understood as beneficial to the community and its WSC. They will enroll into the O&M framework and start paying O&M service fees, before the CapEx works/repairs. In this way the government directive (DIM 2013) that the O&M structure is a prior condition of CapEx spend, will become a generally accepted mode of operation essential to O&M roll-out (the “Pre-works Maintenance Procedure PMP”).

Donors and their implementing partners will take several years to adjust their disbursement procedure to include “pre-CapEx timelines” allowing the O&M structure to be first implemented in communities they target for CapEx works. To be compliant to the government policy for rural water, donors and their implementing partners will not spend CapEx at all, if the community targeted does not have an ASP service agreement in place and is paying initial service fees. The MWE Regional Centers, the Water Boards and the DLG

Water Authorities, have the role of ensuring this shift in donor procedure on CapEx spend. They will ensure that communities in need of major repair or in need of new waterpoint construction, first enroll into ASP service contracts, and they will be encouraged to spend a portion of their funds on establishes this prior compliance step. This a governance priority.

A reasonable assumption therefore is that all handpump-dependent communities in a district will enroll within 5 years; however, the process may take up to 10 years in some districts. The template tool is designed to allow different roll-out years to be modelled. Two scenarios are shown in the template output table: a 5-year roll-out and a 10-year roll-out.

Service fees will be set by the district councils and approved by MWE. The template is flexible to different service fees in different districts. However, standardized default service fees published by government and well-known to all stakeholders and communities, uniform across district boundaries, will be an important part of assisting the ASPs to function financially, as differences in fee levels will cause resistance to payment. This is a governance priority.

During the roll-out period, ASPs will not be operating at economy-of-scale and revenue collection will not yet have optimized. Therefore, there will be a financial gap between cost and revenue; this “ASP breakeven finance” gap is one of the major costs of roll out that is addressed by the business plan. This finance is best provided according to Result-Based-Finance (RBF) procedures – these ensure that the revenue is rising and the cost is reducing as a condition of the performance contract of the ASP.

After the roll-out period, ASPs are projected as self-financing from Community Service Fee (CSF) revenues, however the costs of operating the Water Board and its executive operations (MIS, performance monitoring, reporting, stakeholder co-ordination, water board meetings, etc) are on-going. The business plan projects on-going cost in addition to roll-out costs.

The figures provided here are placeholders and will be developed with more accuracy through collective discussions, and through application of the Excel tool.

The possible need for an ongoing subsidy to meet continuing cost-revenue gaps (between ASP service cost and CSF revenue) after roll-out, is excluded deliberately from the table. This is done for several reasons: (a) the gazette application process must show that financial viability is possible, and there is good evidence that this is true; (b) cross-subsidy approaches (such as practiced by NWSC currently) are the most secure long-term method of closing such gaps, and normal and effective in most countries, and therefore should be the principal focus for any on-going subsidy; (c) continuing financial support to ASPs is best considered as continued breakeven finance and applied using RBF procedures – the ASPs may have RBF sponsors helping them achieve breakeven over longer periods than the roll-out period; (d) mention of permanent subsidy invites confusion for all stakeholders and prevents a defined starting point, leading to apposite practical roll-out activity.

It is understood that eventually urban piped water should replace the need for point-source-focused service providers, whose role is temporary, ensuring functionality of water source in communities still waiting for full piped supply.

## Hand-pump Pay-by-Volume and Subscription approaches

Under Pay-by-Volume, WSCs have two important roles:

- Ensure vulnerable people (ie disabled, injured, bereaved) get water every day, and community welfare (for ex. interest of children and girls)
- Ensure security of the assets

The technology for Pay-by-Volume at hand-pumps is under development, the leading brand currently being Sunda. Whave is helping Sunda with this development by using Sunda P-by-V units in 80 communities. The Excel business plan template projects financial viability on assumption that Sundas or similar PAD products are fully developed and available at reasonable CapEx cost and maintenance costs.

Cross-subsidy is automatic in this case. This means that large communities generate revenue which the ASP uses to meet service costs in small communities. One possible risk here is that incentive for WSCs to conduct their two roles is lessened since they do not collect revenue with a margin to cover their expenses.

Under Subscription, the WSCs take three important roles:

- Ensure vulnerable people (ie disabled, injured, bereaved) get water every day, and community welfare (for ex. interest of children and girls)
- Ensure security of the assets
- Collect O&M service fee revenue

The business plan allows scope for the WSCs to follow village by-laws which permit use of a margin between revenue collected and revenue remitted to ASP, to meet expenses involved in undertaking their roles. This provides an incentive for the WSCs to remit the full Community Service Fee (CSF) to the ASP (if they don't remit to a reasonable compliance level/collection efficiency, they lose their margin when the ASP suspends). This margin is calculated in the business plan. This consideration may prompt District Councils to resolve higher tariffs (with MWE approval) than the generally accepted 2,000 UGX/hh/month, for example a greater incentive for WSC compliance and expenses margin is achieved with a tariff of 3,000 UGX/hh/month.

The business plan excel template allows for cross-subsidy between large communities and small communities. This is an important role for the Water Boards and their executive (the Liaison Officer or Liaison Organization). Each WSC submits accounts to the Water Board whose task it is to affect the necessary cross-subsidies. This requires a strengthened governance role for the Water Boards and their executives. It does however lead in the right direction, as this type of strengthened governance at district level is already recognized as essential for co-ordination of services to hand-pump dependent communities located in the same areas alongside communities with supply from public piped water networks. Cross-subsidy will become an important feature of co-ordination of urban service providers and rural water point service providers, assuring 24/7 functionality assurance for all communities inclusive of those waiting for piped water.