Introduction

In Uganda, tremendous achievements have been made by the national government in establishing policies, processes and procedures for installing rural infrastructure, monitoring performance in the water and environment sector, channeling finance through provincial legislators, and regulating services delivery. However, the Ministry of Water and Environment (MWE), the local district governments (DLGs), local leaders as well as the "the man on the street" are keenly that there is a need for a focused single coherent framework for rural water service delivery, for everyone to agree to and follow, at least at regional scale if not a national scale.

So, everyone is asking, "what's the plan?"

The three key questions: who, what, how?

Four local government have signed Public-Provider Partnership (PPP) agreements with a Ugandan non-profit company Whave Solutions, which is acting as a pioneer Rural Water Utility (RWU) which signs Preventive Maintenance and Continuous Renovation Agreements (PMCRAs) with communities. The intention of these pilot PPPs is to develop fully viable service delivery answer the key questions: who does what, who pays for what, what are the costs, and how are the costs met?





Who does what?

This question is answered by a set of clearly understood and agreed contractual agreements. The pilot PPPs have generated provisional versions of such contracts as shown.

Contracts 4 and 5 are in an advanced state, having been proven over some years. There is debate still as to how the RWUs should be regulated, and how service areas should be defined for the urban utilities focused exclusively on large piped supplies in towns (the National Water and Sewerage Corporation NWSC and the Umbrella Authorities), especially in respect of point-sources (smaller piped systems, hand and wind-pumps, protected springs and similar) situated within their concession areas (known in Uganda as gazettes).

Who pays for what?

Fig 4 shows the taxonomy of cost. There are two main types of cost, permanent recurrent costs and temporary investment, and the first type, recurrent cost, is sub-divided into Direct and Enabling Service. Direct Service is the task of keeping rural water sources working reliably. Who pays this cost? Communities sign into PMAs (preventive maintenance agreements) which oblige them to pay a Service Fee covering it.

The amount of the Service Fee is agreed between the RWU and the government. Deciding prices is a feature of the second recurrent cost category, Enabling Service, financed by government.





What are the costs?

Direct Service Costs: The direct service costs are hardware replacement, local technicians' fees, and management. The RWU / Service Area Provider / PPP model corrects a serious flaw in current rural water service delivery, which is that communities attend only to "minor" repairs. This has been a perverse incentive causing neglect of routine servicing and minor repair to shift all maintenance into the major replacement category taken on by government.

Investment Costs: An important investment item is promotional pricing or "discount" for a temporary

period. The cost model assumes conservatively that 6 years will be needed for initial service areas to remove promotional pricing and decline discounts to zero. Promotional pricing is necessary because NGOs, districts and politicians currently offer free repairs despite the office policy that requires communities to pay for repairs.

Enabling / Indirect Service Cost: or the time being, this cost is assumed to be within current budgetary provisions. Considerable sums are currently spent on rehabilitation while the waiting lists for rehabilitation do not shorten and sources are constantly falling out of use. It is acknowledged by the districts engaged in the three pioneer PPPs, that these budgets are better utilized to support the PMAs.

How are the costs met?

Tariff payment: In the baseline situation currently experienced by most rural communities, two methods are used to meet costs, although in both cases with severe failings. Subscription applies in farming communities and Pay-for-Volume (PfV) in rural trading and market centers. In practice it is usual for subscriptions to be remain unpaid; instead, a mechanic's bill is shared when a break-down occurs. There are frequent and prolonged downtimes, and deployment of sub-standard materials is common. These failings do not occur in the trading centers where PfV applies; instead the failing there is that access is limited only to people able to afford very high prices for safe water, while the majority are excluded.

Under the RWU/LSAP approach developed by Whave and described in this paper, both these payment modalities are revised, and are labelled Improved Subscription and Improved Pay-for-Volume hybrid (iPfVh). In both these modalities, the RWU's Local Service Area Provider (LSAP) assures reliable functionality.

Scaling, saturation and feasibility

Uganda's National Development Plans project a middle-class country by the year 2040, with rural populations having reliable services such as water supply. It is necessary for aid agencies working on SDGs 6. 1 and 6.2, to join hands to help neighboring district governments create or "gazette" pilot service areas for reliable water and conversion to piped supply, based on a single contractual framework and financing approach. Fig 14. Pilot Service Area by year 2025 with 30% piped water: 300,000 people converted from hand-pumps to functional taps, and 700,000 people with functional hand-pumps (restored by a SAP) still waiting for conversion to pipes in forthcoming years. Eligibility for conversion to pipes dependent on tariff payment.



With saturation, social consensus on tariff payment is achieved since water users do not find a neighboring pump

free of charge. Scaling the saturated area to one million people served with full functionality, creates financial breakeven for the RWU's Local Service Area Provider (LSAP) and enables the local government to implement appropriate regulations.

The time-to-breakeven is estimated at six years but could be shortened by strong co-ordination of aid agencies and district governments, as mentioned above, but this would also demand successful "election-proofing".

If we establish an O&M framework that assures that hand-pumps function reliably on strength of tariff payments, it acts as a justification for large-scale investment in conversion of hand-pumps to rural (point-source) piped systems for human health (safe drinking/washing), animal husbandry and crop irrigation for economic growth.