### Piped Water for All "How do we achieve it" Joel Mukanga, Whave Solutions JSR, 2018



### What does "Piped Water for All " mean?

This means piped water for Everyone Every day.

Structures for piped water in towns are expanding to RGCs. But more than half the population are living outside towns or trading/rural growth centers

This presentation is about reaching that extra 60% of the population with piped water, with the same structures, to achieve national development goals and SDG 6 goals. That's "Everyone".

"Everyday" means assurance of full functionality, less than 10 non-supply-days per year

### 1. Vision

- Piped water for:
- <u>everyone</u> in rural areas, not excluding those who cannot pay an excessive ad-hoc price (current baseline situation)
- <u>every day</u> "full functionality", move away from current baseline of between 50 and 150 days of non-supply days
- For example, in Kumi where we work with the DLG in **Full Functionality PPP**, we aim to achieve this in all 600 farming communities. In Kamuli we also have a PPP and aim for over 1000 rural communities

### 2. The challenge

•Too many broken pumps waiting for repair and even those that are repaired take long downtime.

•With annual budgets and NGO activity, we reach less than half of water sources in need of repair.

•After Rehab they break again too soon

•Only with no waiting list and no down-times, will there be appetite for large-scale investment in piped systems in rural areas. So functionality assurance is the essential step to achieve the vision 3. The District Full Functionality PPP solution
We have seen full functionality is feasible at low cost
This is achieved by Preventive Maintenance Service
Agreements. PMAs involve 4 inspections per year and replacement of worn components to avoid a breakdown

PPP Records July 2018	Kumi	Kamuli
Number of Service Agreements	63	168
Water Users served	25,462	39,091
Spot Functionality	100%	99%
Number of breakdowns	0	9
Average down-days	0	2
Fee payment compliance	85%	76%

3. The District Full Functionality PPP solution
We have seen full functionality is feasible at low cost
This is achieved by Preventive Maintenance Service
Agreements PMAs

•The PMA has an initial service which **costs four times less than average Rehabilitation cost**. This means the Broken Pumps Waiting list is quickly cleared.

•The Rehab **waiting list never comes back**, because the PMA includes continuous replacement of all parts, major and minor

### 4. Alignment with national structures

•The Service Agreements are signed by WSCs and a district Preventive Maintenance Service Provider, which is an entity contracted to either the **Umbrella Utility or the DLG** 

•All the PM technicians are members of HPMA, and the HPMA leadership is trained to become a Preventive Maintenance Service Provider and understand the KPIs.

### 4. Alignment with national structures

•Technicians now have income from avoiding breakdowns, not from breakdowns and Rehab contracts. They are professionalized and piped systems become feasible.

The DLG is currently taking the role of issuing
Performance Contracts using nationally agreed KPIs since
PM Agreements are outside the gazette areas for
Umbrellas.

#### 4. Alignment with national structures

•This approach mirrors the Umbrella Water Authority structure for gazette towns. It therefore assures rapid expansion of Umbrella Utility services into rural areas

PPP Records July 2018	Kumi	Kamuli
Fee payment compliance	85%	76%
Customer Satisfaction	76%	87%
Number of SLGs with preventive maintenance Resolutions	4	14
Quarterly PPP Review Meetings	Regular	
HPMA participating in Review Meetings and Partnership with HPMA as trainee SP	Regular	
Technicians members of HPMA	All	

- •We have 5 years experience with PMAs going >98%
- functionality and the cost of full functionality is known.
- •When there are 600-1000 communities with PMAs (rural population of a district) the service cost is 100k/=/month.
- •Since volunteerism is no longer available, the other cost is
- local tariff collection earning up to 100k/=/month in addition

•Therefore the preventive maintenance system is financially sustainable with the pro-poor tariffs proposed which are 25/= to 50/= per jerry-can.

•This is affordable to rural families and it protects them from ad-hoc excess pricing which is spreading everywhere

• A lifeline family consumption of 6 jerry-cans per day, pays the total service and collection cost of 200k/=/month

•However, we need a smart tariff system using tiered pricing. For example businesses and institutions can pay 100/= per jerry can for excess consumption over the lifeline consumption, of 6 jerrycans/day at 25/=

•This also helps to use the important potential of roof water harvesting. In rainy periods, most rural families may use roof water, so to collect 200k/month requires either tiered pricing or an increase to 50/=/jerrycan.

•This means that piped water for everyone, everyday, is possible, because investment is worthwhile. Economic productivity will increase fourfold, and cost is not more than hand-pumps, when functionality is assured.

•The PM Service Provider is a Build & Operate entity, which means we no longer have current problem of Build & Run Fast, that we saw with the help of the Borehole Down-Cameras.

### **Piped water for everyone every day** how to achieve it joel.mukanga@whave.org **Please contact myself or Kumi and Kamuli DLGs** www.whave.org

#### A Case Study paper is available at JSR desk



with National

we pay for functionality