

20th AfWA International Congress and Exhibition 2020 Breaking new grounds to accelerate access to water and sanitation for all in Africa



Rural Water Maintenance Service Providers Kenya and Uganda

23rd – 24th February 2020, Kampala, Uganda

Cliff Nyaga, FUNDIFIX, Kenya
cliff.nyaga@smithschool.ox.ac.uk
www.fundifix.co.ke

Adam Harvey, Whave, Uganda
www.whave.org
adam.harvey@whave.org



CONTENTS



1. What is “Guaranteed Functionality”?
2. The UpTime Group
3. Fundifix: a Service Provider in Kitui and Kwale Counties, Kenya
4. Whave Solutions: District PPPs in Uganda
5. UpTime: Sustainability factors
6. Acknowledgements

1. WHAT IS “GUARANTEED FUNCTIONALITY”?

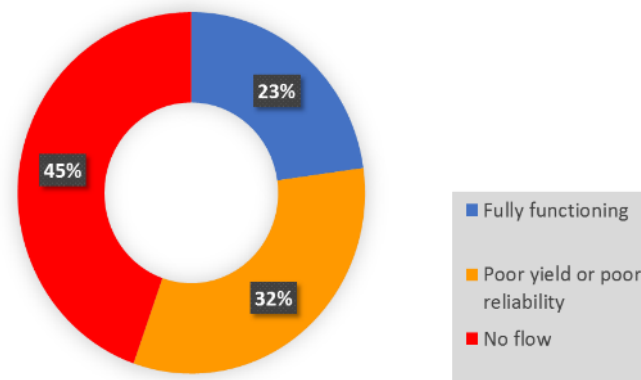


“**Down-Time**” is now recognised as a hidden poverty crisis. The 2019 UPGro report, for example, found that **over 80% of hand-pumps in rural Uganda, were either non-functional, unreliable, or suffered inadequate yield or contamination.**

Guaranteed functionality service providers have a solution: Kenya (FundiFix) and Uganda (Whave) provide **assurance of water flow functionality** to a growing number of rural communities, through:

- professionalisation of local technicians
- preventive maintenance schedules,
- rapid response to breakdowns
- hardware quality assurance
- accurate monitoring of functionality
- cost recovery through tariff payments
- public-private partnership and government regulation

UPGro: ten districts in Uganda



<https://upgro.org> and
<http://nora.nerc.ac.uk/id/eprint/518403/1/OR17029.pdf>



2. WHAVE, FUNDIFIX, AND 3 OTHER SERVICE PROVIDERS IN THE UPTIME GROUP

Uptime is a global consortium working to deliver drinking water services to millions of rural people through long-term, performance-based funding to achieve Sustainable

In 2018:

5 Service Providers

Working In

14 Operational Areas

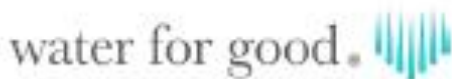
Maintained over

2800 Waterpoints

800+ Piped waterpoints from
99 Schemes

1950+ Handpumps

Serving an estimated



McNicholl, D., Hope, R., Money, A., Lane, A., Armstrong, A., van der Wilk, N., Dupuis, M., Harvey, A., Nyaga, C., Womble, S., Favre, D., Allen, J., Katuva., J., Barbotte, T., Buhungiro, E., Thomson, P., and Koehler, J. (2019). *Performance-based funding for reliable rural water services in Africa*. Uptime consortium, Working Paper 1. Available at: <https://www.smithschool.ox.ac.uk/research/water/report-performance-based-funding.html>

3. THE FUNDIFIX MODEL KITUI AND KWALE, KENYA



- Insurance model for maintenance of existing rural water infrastructure.
- Handpumps and Piped schemes.
- Pooling water facilities to manage risk and reduce cost of maintenance.

FundiFix KWALE

Dhamira: Kutoa huduma endelevu ya utengenezaji wa maji kwa wepesi na unafuu kwa jamii za vijijini



- Huduma ya haraka (isiyozidi siku 3)
- Nambari ya usaidizi inapatikana wakati wowote
- Malipo nafuu ya kila mwezi
- Vifaa bora vinavyotolewa
- Mafundi walio na ujuzi na uzoefu
- Kampuni ya kuaminika na ya kutegemea

Kwa habari zaidi PIGA simu 0719 723000 ama TEMBELEA afisi zetu hapa Bomani

Nambari ya Pampu yako:



3. THE KENYA WATER POLICY AND LEGISLATION CONTEXT



■ National Level

Kitui County

Article 94:
professional
services for rural
areas

Making of the Water Act

- 2012 Water Bill
- 2014 Water Bill
- 2016: passed

Changes in
CG, lack of a
Water Act,
nationally,
slows down
progress

Prototype County Water Bill

- CEC Caucus in Oct 2015 in Baringo.

National Water Policy

- Currently with Cabinet

Supported by
USAID-
funded SWS
and KIWASH
programmes

Water Bill

- Water Bill at the County Assembly.
- Strengthens rural water monitoring, PPPs, and financing.

Discussions
around one
county-wide
service provider?

Water Services Regulation

- CS-Water approval
- National assembly approval

Water Policy

- Draft Water Policy at the County Assembly.

3. FUNDIFIX MODEL IN KENYA - PROFESSIONAL SERVICES



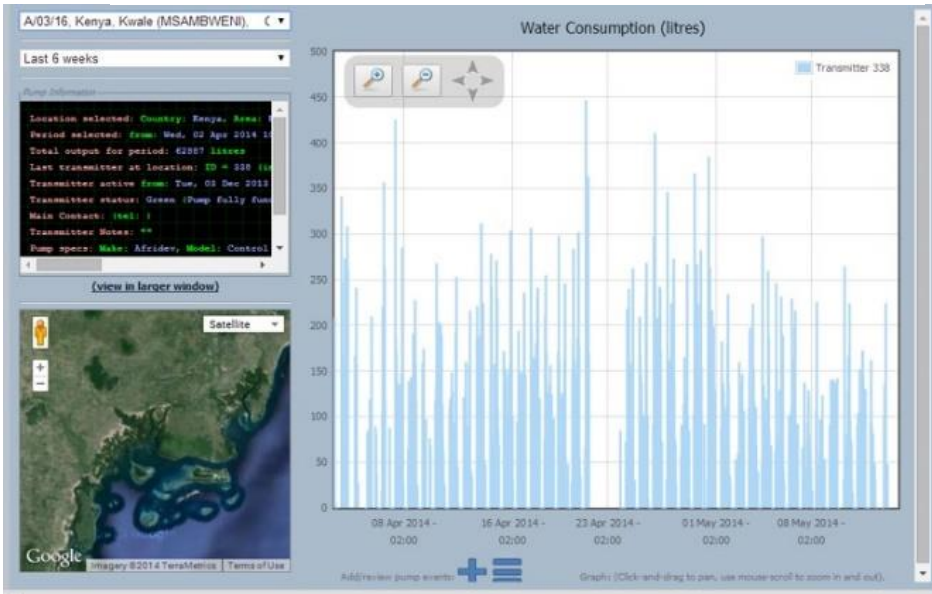
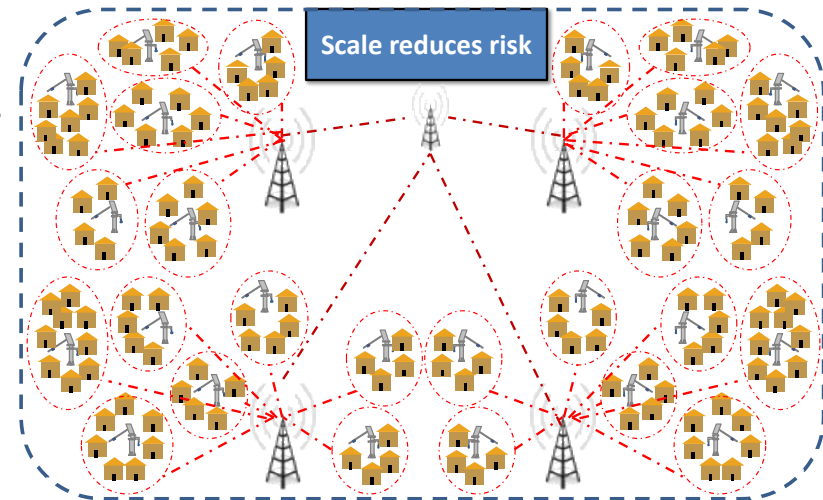
- County-based operations.
- Performance based - contracts with Communities.
- >120 (active) Communities & Schools in Kenya.
- FundiFix mechanics respond to breakdowns in contracted sources.



3. FUNDIFIX – SMART MONITORING



- GSM-enabled sensors support functionality monitoring and validation of performance/repairs.

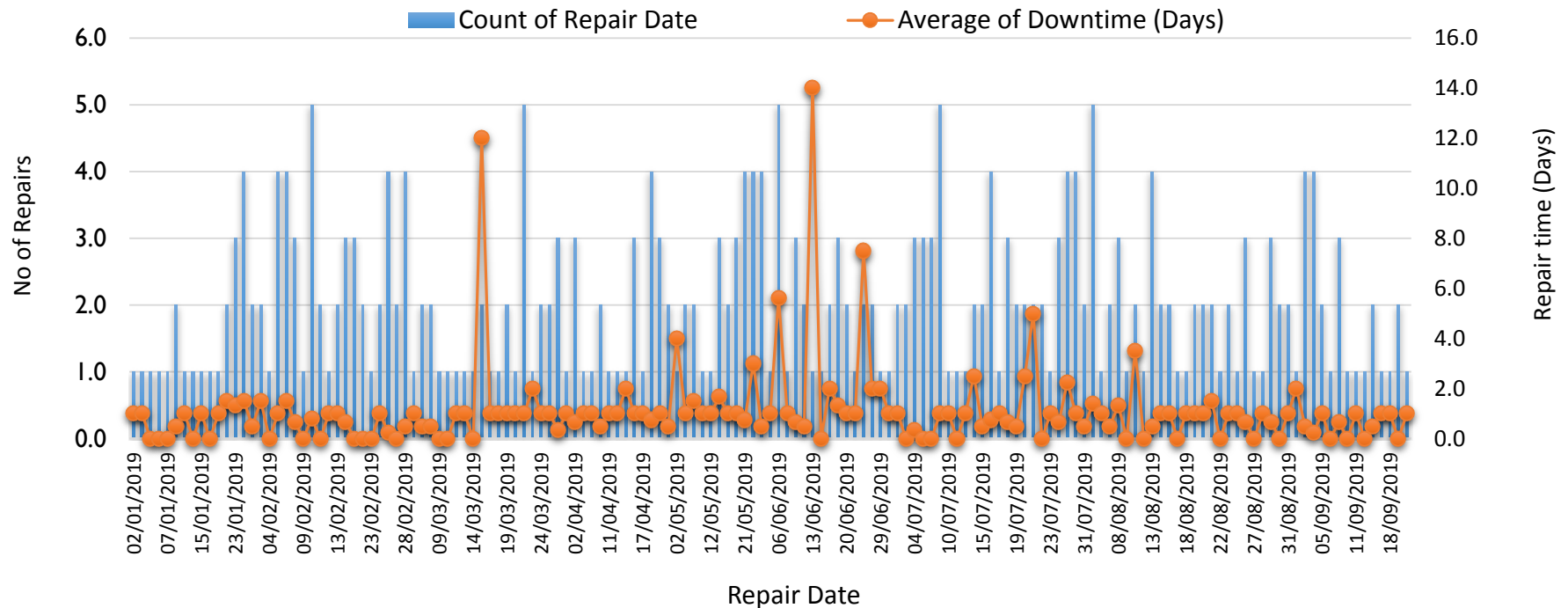


3. FUNDIFIX, KENYA – PERFORMANCE (2019)



- Maximum of 3 – 5 days repair time commitment for handpumps and piped schemes.
- > 15 million litres of water supplied by piped schemes & hand pumps monthly

More than 400 repairs completed in 2019

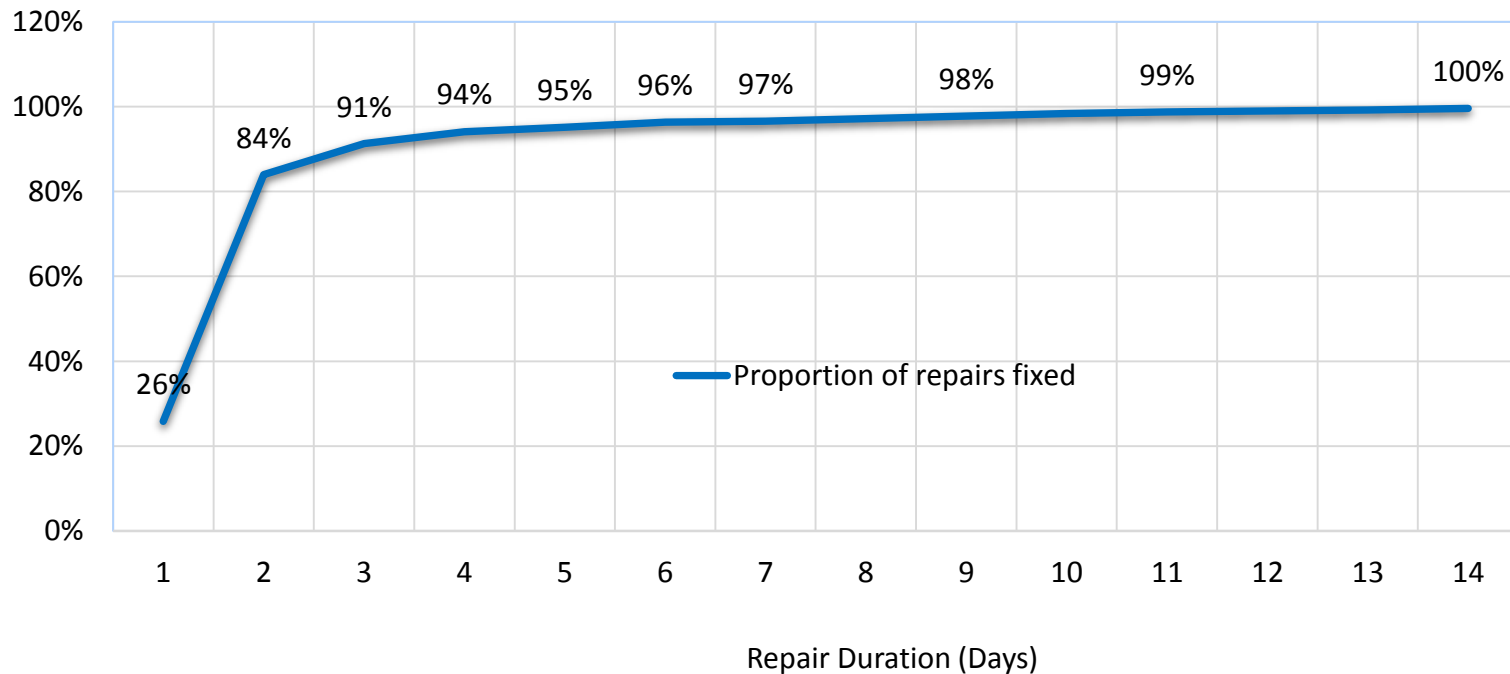


3. FUNDIFIX, KENYA – PERFORMANCE (2019)



- 95% of all repairs in Kitui and Kwale (Kenya) completed within 3 days.
- Rural water users paid > USD 15,000, hence a direct working ratios of 15 - 20%
- Reliable drinking water service for 90,000 people, including >74 local schools and >20 health facilities.

Proportion of reported breakdowns by repair time

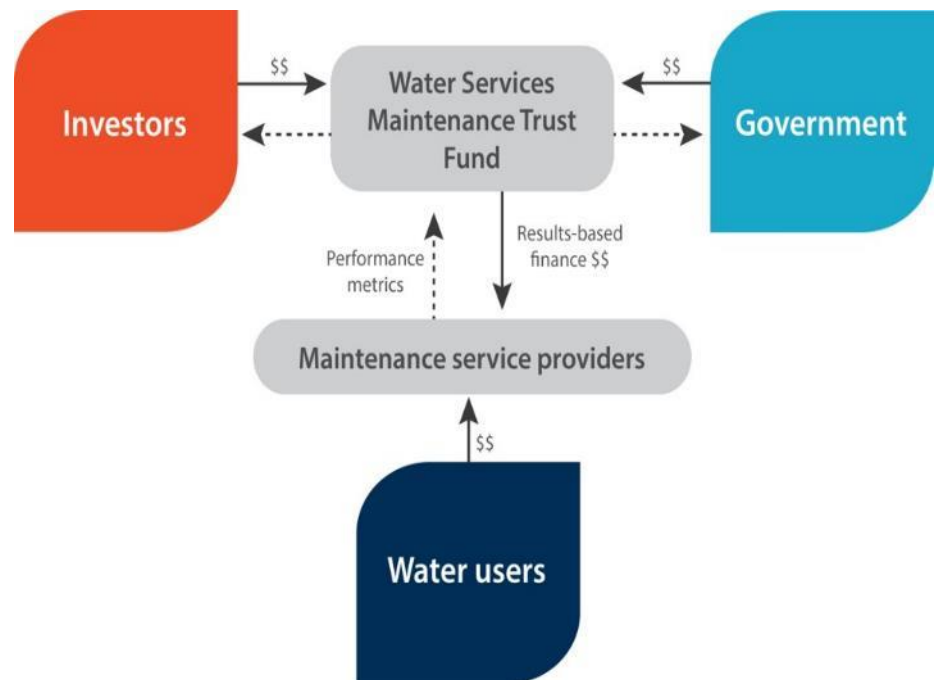
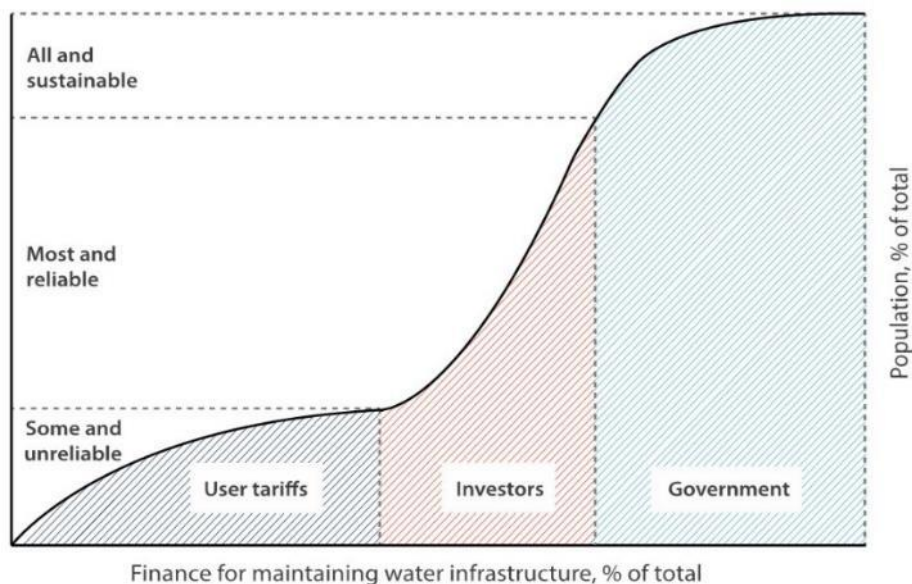


3. FUNDIFIX, KENYA – SUSTAINABLE FINANCING



- Water Service Maintenance Trust Funds established in Kenya – operational in Kitui and Kwale.
- Both provide performance-based subsidies to FundiFix companies in Kitui and Kwale.
- The Kwale Maintenance Trust Fund is 100% supported by social impact investors.

Co-investing in maintenance costs of water infrastructure to ensure reliable supplies for drinking, washing, bathing and laundry needs



4. WHAVE DISTRICT PUBLIC-PRIVATE PARTNERSHIPS, UGANDA



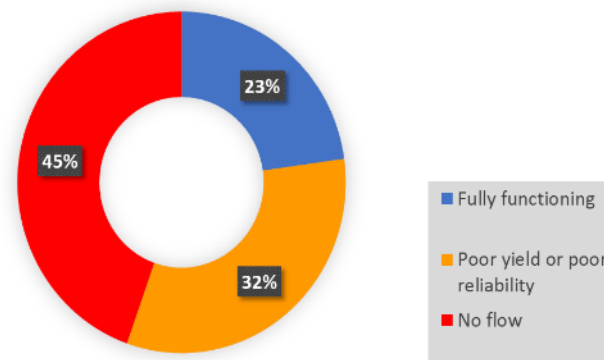
Whave is a “**guaranteed functionality**” company.

Why is are these companies needed in rural areas?

In Uganda, **20 million** people have hand-pumps, but **none have safely managed access to water** (SDG 6.1). Most hand-pumps are **frequently not functional for long periods** of time. Therefore reliability assurance is a priority to achieve national development goals



UPGro: ten districts in Uganda



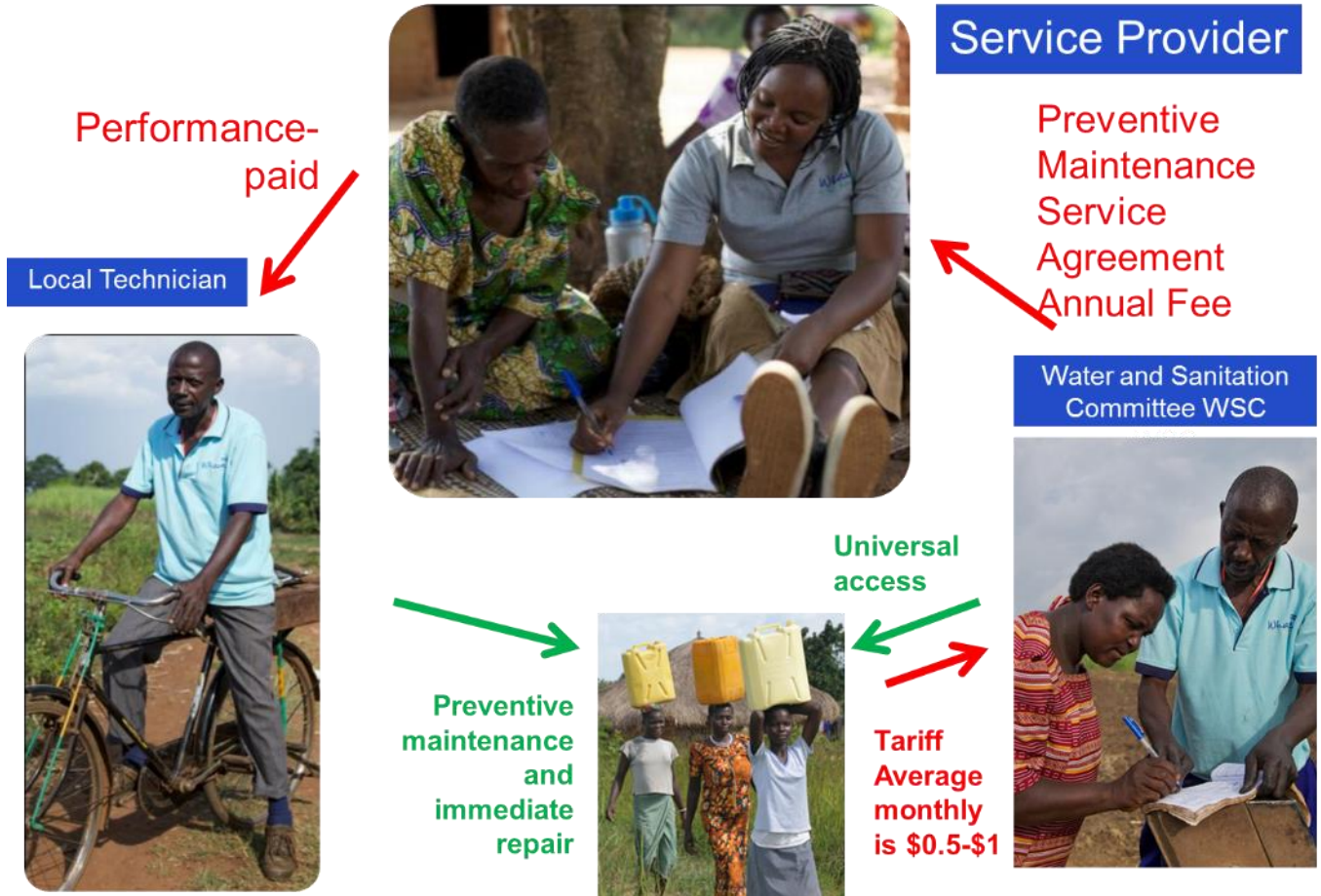
<https://upgro.org>

<http://nora.nerc.ac.uk/id/eprint/518403/1/OR17029.pdf>

4. WHAVE : PERFORMANCE PAYMENT OF TECHNICIANS



Whave is a Ugandan company offering communities **functionality assurance contracts**, and providing local **technicians with performance-pay contracts**



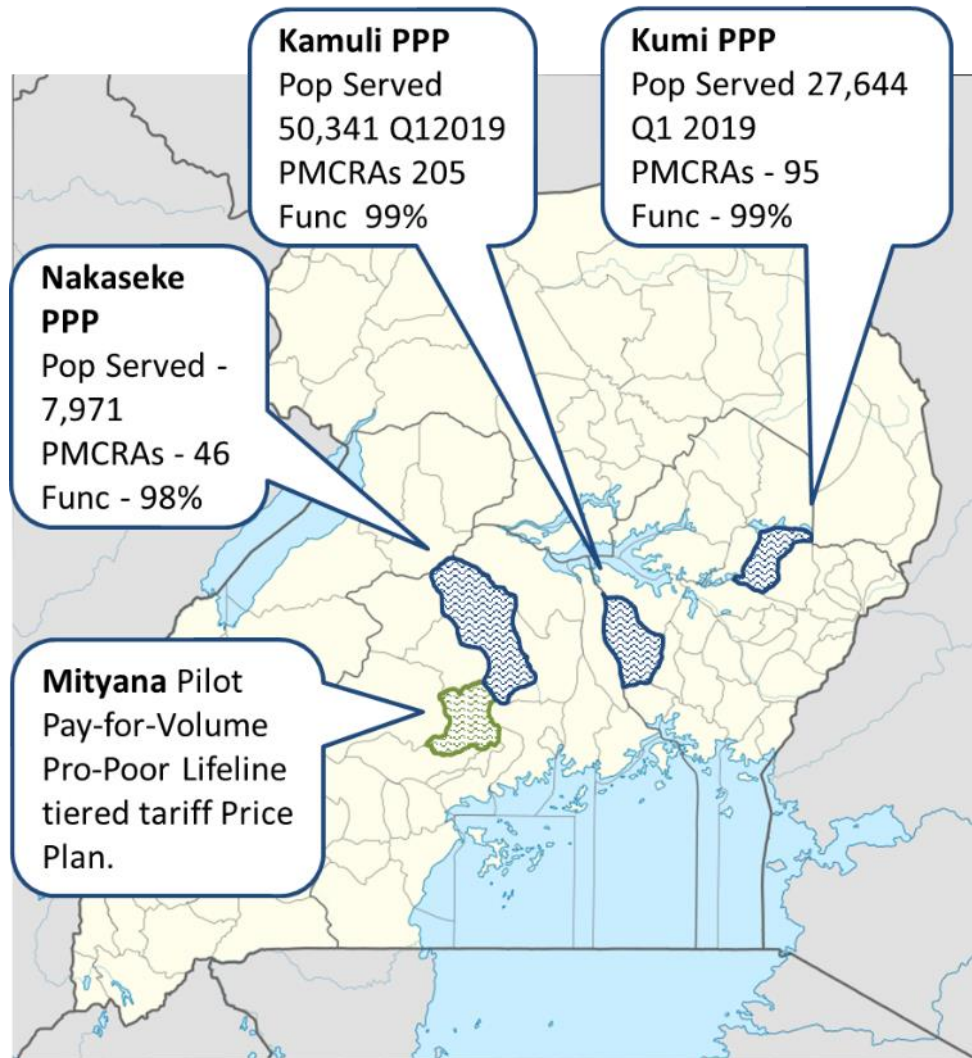
4. WHAVE PUBLIC-PRIVATE PARTNERSHIPS, PPPS, UGANDA



Whave works with Government to develop a regulatory framework for functionality assurance.

In these 4 districts, over **300 Service agreements, more than 80,000** people served

A further 100 communities are served in other districts



4. WHAVE: PREVENTIVE MAINTENANCE SCHEDULES FOR PROFESSIONALIZED TECHNICIANS AND COMMITTEES



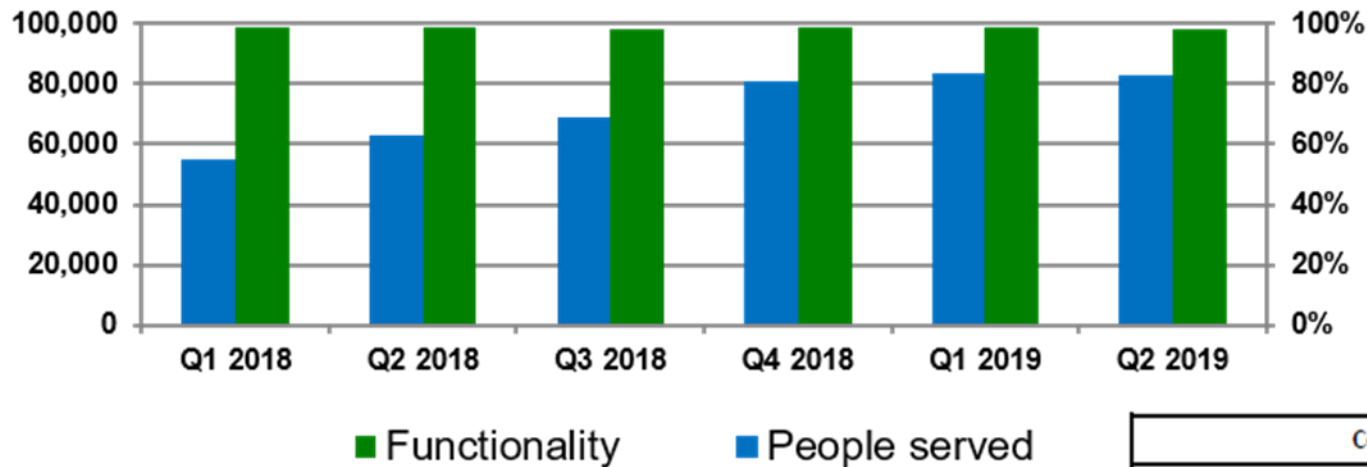
The photo shows the **Chairperson of the Community Water Committee**, signing a log-book to confirm the **regular preventive maintenance** visit of the Whave Service Technician



4. WHAVE SERVICE CONTRACTS, FUNCTIONALITY RESULTS



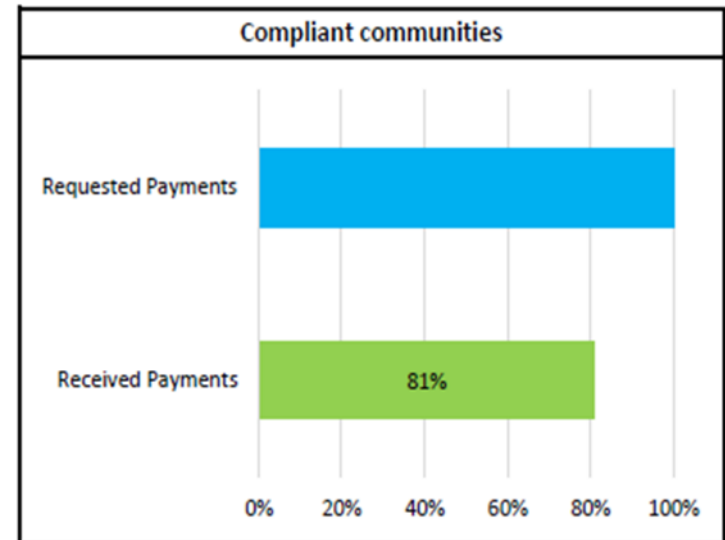
NAKASEKE + KUMI + KAMULI



Over **300 Service agreements**, more than **80,000** people served

Since 2014, the performance-payment and service contract system has resulted in **over 97% functionality consistently.**

Water Users pay maintenance tariffs. **Compliance is over 80%**



4. WHAVE DISTRICT PPPS: PAYMENT MODALITIES



Whave operates **three payment modalities**, depending on locality conditions and progress through stages 1,2,3 of modernization:

1. **Annual or monthly service fees** paid to Whave by Water User Committee, \$27/month or \$320/year, with **declining discount** (in early 2019 **discount is between 75% and 50%** depending on locality and depth of borehole. In most areas discount was withdrawn in Q3 2019, to move communities forward to stage 2. In a community of 50 homes, this works out at \$0.5/home/month paid to Whave, which can increase up to \$1 per month to allow for caretaker and collection fees by local committee. Whave uses \$320/yr/hand-pump to manage and pay local technicians, and to buy hardware – all major component replacement is included (CapManEx&OpEx).
2. As above, but with **no discount...this starts in Q4 2019**
3. Hand-pump users pay **according to volume consumed...see next page**

4. WHAVE DISTRICT PPPS: PAYMENT MODALITIES



3. Hand-pump users pay **according to volume consumed, price is per 20litre jerry-can**, as normal payment at tap-stands.

The **pro-poor Price Plan** allows up to 100 litres (5 jerry cans) to be drawn each day at every low price of 40 UGX (1 US cent) per 20 litres.

Commercial users and high-volume users pay 3 cents for 20litres.

From this total service revenue:

Local attendants receive a fee linked to volumes and professional conduct

Committee receives a share, dependent on volume, for welfare function

Whave retains \$320 /year to:

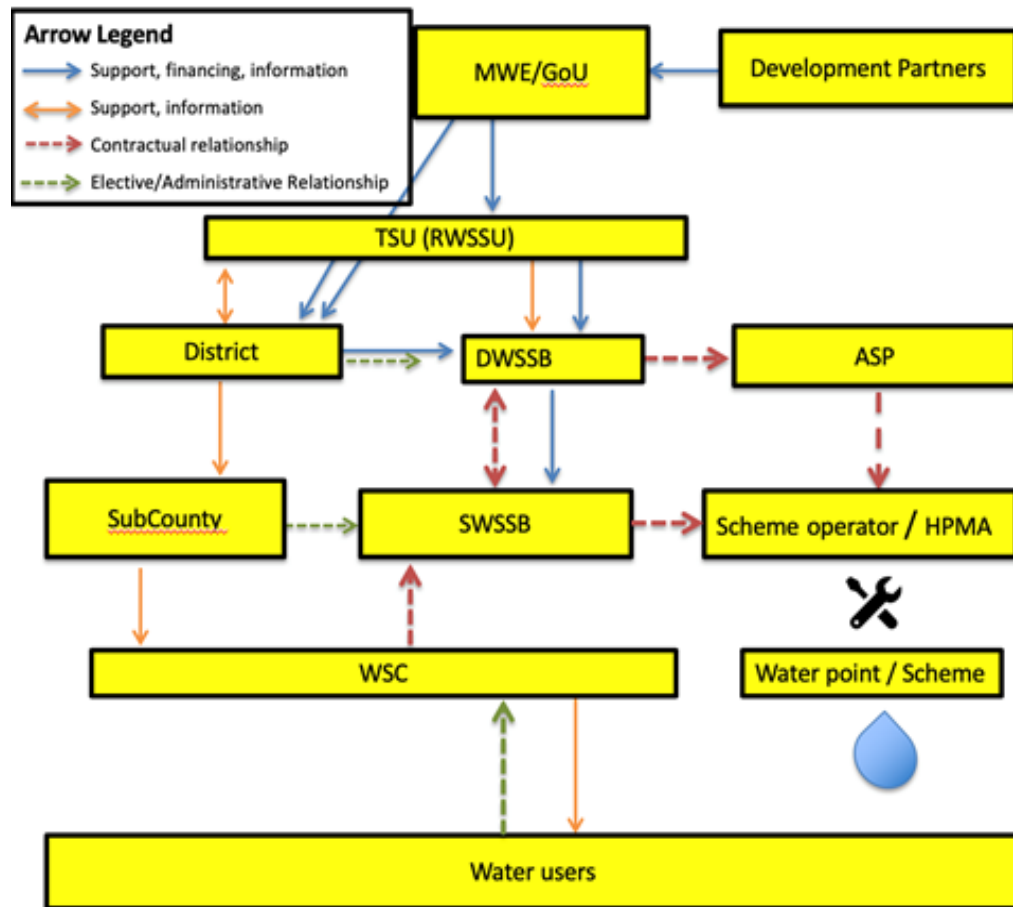
- manage and **pay local technicians**,
- buy hardware: **all major component replacement** included (CapManEx&OpEx).

4. WHAVE DISTRICT PPPS: INSTITUTIONAL STRUCTURE

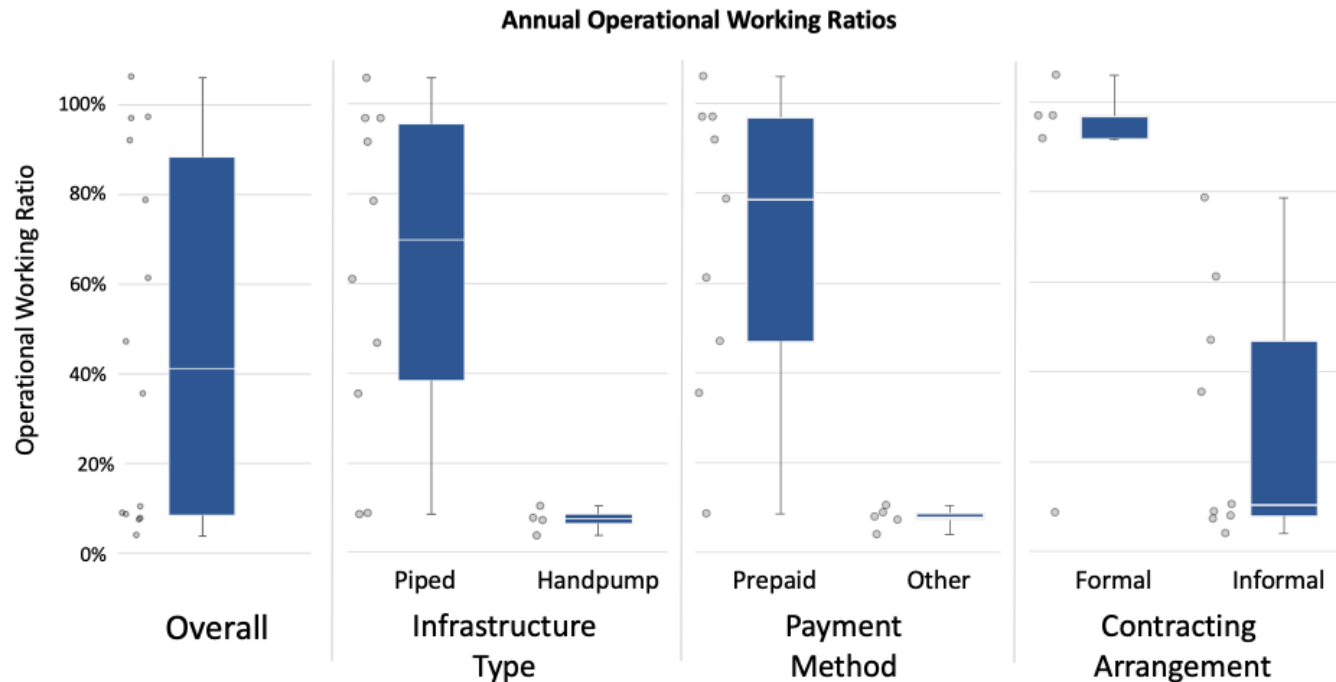


- **Regulation** by Ministry of Water and Environment (MWE)
- **Performance Contracts** between Local Government and Service Providers (ASPs) such as Whave
- **Investment** from GoU and Development Partners
- **Maintenance tariffs** paid by water users to assure **sustainability of functionality guaranteed functionality**

The Rural O&M Professional Management Arrangement



5. UPTIME: WORKING RATIOS DEPEND ON A VARIETY OF FACTORS



Segments of box-and-whisker plots represent (from bottom to top):
 minimum value, first quartile, median, third quartile, and maximum value

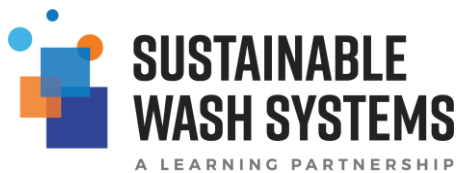
● - Operational Unit

Confidence	Very High	High	Medium	Low	Very Low
------------	-----------	------	--------	-----	----------

6. ACKNOWLEDGMENTS



Both FundiFix and Whave gratefully acknowledge financial and advisory support from local government, the communities we serve, and from the following organizations:



FundiFix also acknowledges:



Whave also acknowledges:



20th AfWA International Congress and Exhibition 2020 Breaking new grounds to accelerate access to water and sanitation for all in Africa



Rural Water Maintenance Service Providers Kenya and Uganda

23rd – 24th February 2020, Kampala, Uganda

Cliff Nyaga, FUNDIFIX, Kenya
cliff.nyaga@smithschool.ox.ac.uk
www.fundifix.co.ke

Adam Harvey, Whave, Uganda
www.whave.org
adam.harvey@whave.org





20th AfWA CONGRESS

— YOU ARE WELCOME —