

## REACH STORIES OF CHANGE | SEPTEMBER 2021

# Scaling-up Results-based Funding for Rural Water Services

A multi-billion dollar funding gap exists between the goal of safely-managed drinking for all by 2030 and the funds available. Donors do not have the resources to meet the global funding gap. This means the limited resources need to be used wisely and non-traditional funds secured to promote more government investment.

The Water Services Maintenance Trust Fund (WSMTF) in Kenya provides an example of how this funding gap can be met by non-donor funds in results-based contracts. In 2017, donor funds paid for 81% of WSMTF contracts, and by 2020, the donor proportion had fallen to 24%. In the same period, the annual WSMTF resources increased from just under USD50,000 to over USD190,000 as the number of water users expanded from 15,000 people to over 75,000 people. This work has supported the Uptime Consortium guaranteeing reliable water services for over one million people in four countries, attracting USD1 million for results-based contracts. Ongoing work is developing a global strategy for results-based contracts for 100 million people by 2030.

## Introduction

Generally, governments and donors do not fund the operation and maintenance of water supply infrastructure. It is assumed communities are willing and able to pay for operational costs. In reality, repairs often take a month or more, and waterpoints can be abandoned after a few years despite a projected life-time of 10-15 years. This false economy is widely known yet endures in policy and practice. A waterpoint may not function after a few years, meaning a USD10,000 handpump installation or a USD100,000 small piped scheme delivers a fraction of its potential value. This wastes limited funds and fails to provide safe, affordable and reliable drinking water services.

Droughts, floods and the COVID-19 crisis compound the poverty impacts. Women and girls bear the burden of spending millions of avoidable hours collecting water with risks of violence, missing school to reproduce development inequalities, and paying higher costs for more distant water of uncertain quality.

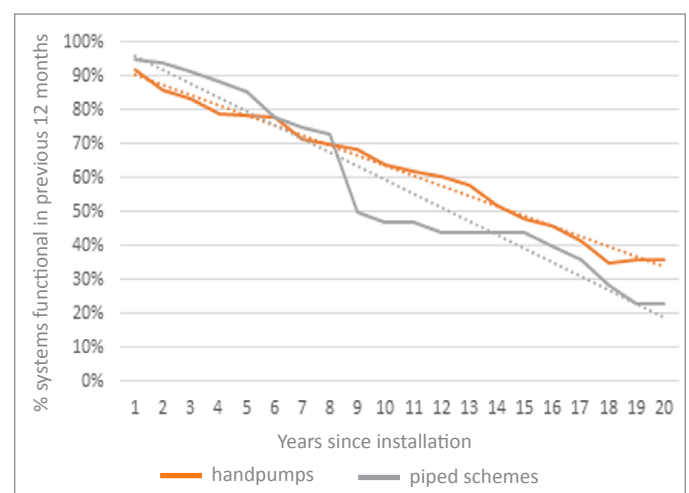


Figure 1: Survival curve for handpumps and piped schemes in Kitui County, Kenya

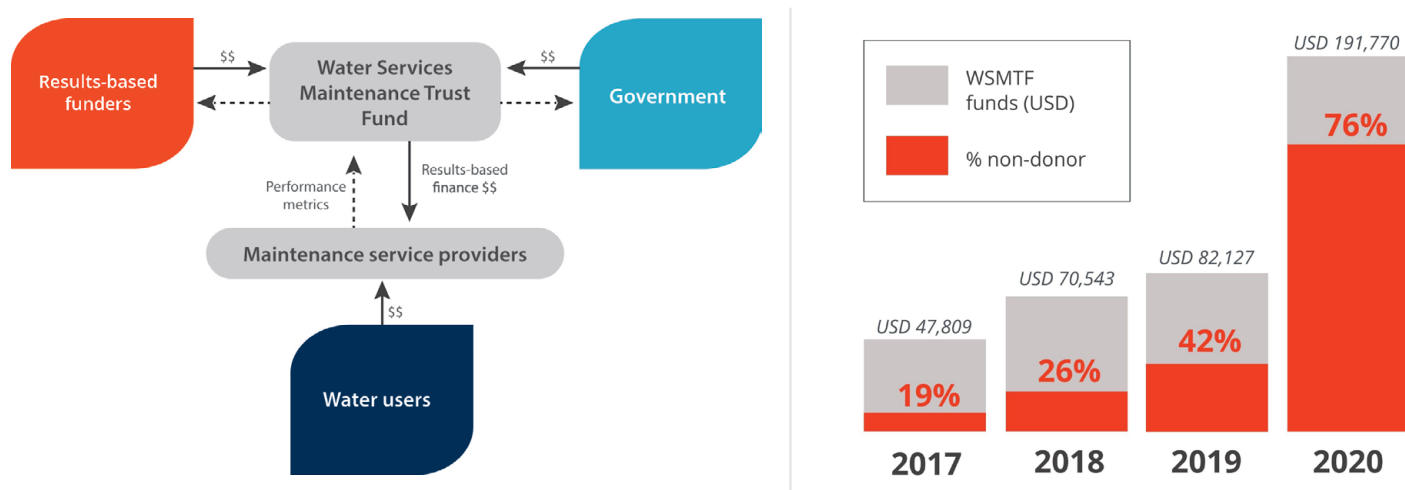


Figure 2: Design (left) and performance (right) of the Water Services Maintenance Trust Fund in Kenya

## Fixing the funding gap

FundiFix was registered as a maintenance services company in Kenya to test whether people would pay a share of the costs based on a guarantee that waterpoint repairs would be fixed in three days. While water users were willing to pay and sign annual maintenance contracts, an affordable payment left a funding gap. This led to the design of the Water Services Maintenance Trust Fund (WSMTF) in 2016 with the support of UNICEF and government partners. The WSMTF was designed to financially support FundiFix so the company could guarantee reliable services even if repair costs varied or users paid late.

The premise of the Trust Fund was that results-based contracts would attract new sources of funding beyond governments and donors. The pitch to non-traditional funders was two-fold: first, rural water users have to pay to demonstrate demand for a service, and, second, payments were results-based, defined by fixing repairs in three days.

## Private sector funding can support results-based contracts

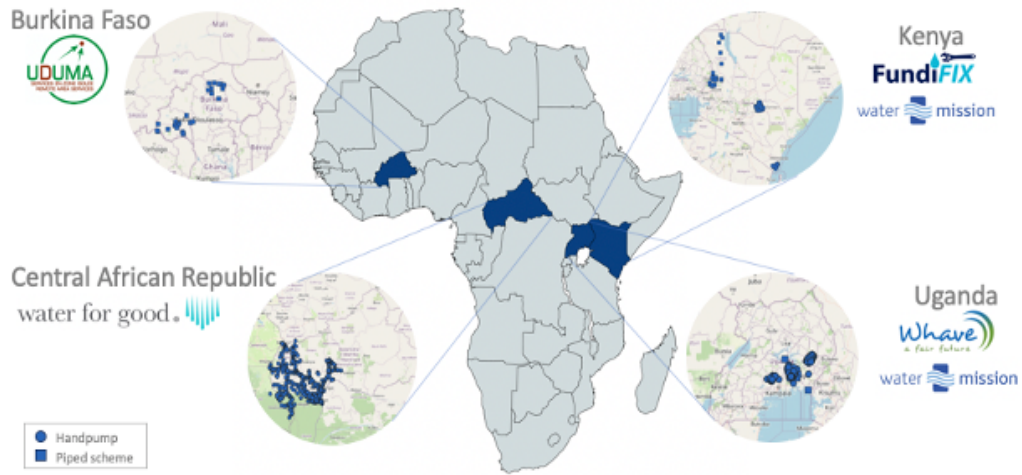
FundiFix operates in Kitui and Kwale Counties in Kenya. In Kwale County, the funds have successfully led to repeat contracts since 2016 with an agricultural and a mining company. These two companies, Base Titanium Ltd and doTERRA Ltd, have a strong commitment to support sustainable community development. FundiFix provided a new model to help the companies achieve shared objectives and help a local social enterprise address a gap in public services for rural communities and schools.

In Kitui County, there are no major companies in the service areas, which required initial donor support from FCDO. In 2016, a German ethical retailer, share GbmH, read of the FundiFix work in [The Economist](#). This led to a results-based contract with a 1:1 match for one litre of drinking sold in Europe to fund 20 litres of water delivered in Kitui and Kwale Counties. With the growth in results-based funding, the share of funding from FCDO has decreased over time. The business model has evolved to include piped schemes in Kitui County which helped expand both the number of users and the volume of water supplied. Measuring the volume of water is important as this defines the contract payments with share GbmH and offers an objective and verifiable indicator of performance.

In 2020, FundiFix provided over 95 million litres of reliable water to 78,812 rural Kenyans, including over 13,000 children in 40 schools. We estimate improved reliability avoided over 10,000 hours of collecting water due to waterpoint failure. With WSMTF support, FundiFix has expanded from 77 handpumps in 2016 to 109 handpump and 24 small piped schemes in 2020. A total 539 repairs were completed with 95% completed in three days.

The WSMTF provides an example of how the funding gap can be met by non-donor funds in results-based contracts. In 2017, donor funds paid for 81% of WSMTF contracts, and by 2020, the donor proportion had fallen to 24% as results-based funders increased their support. In the same period, the annual WSMTF resources increased from just under USD50,000 to over USD190,000 as the number of water users expanded five-fold from 15,000 people in 2015. However, user payments remain at less than 20% of the local operational costs.

## Uptime Countries



## Scaling-up results-based funding: The Uptime Consortium

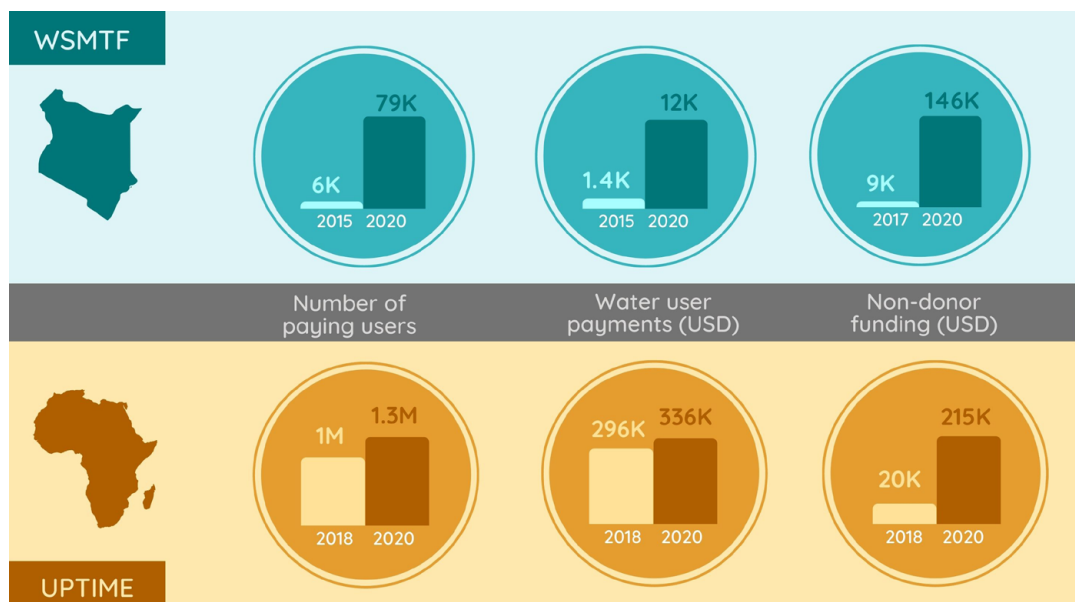
In 2018, the lessons from the WSMTF and FundiFix operations and research have contributed to forming a partnership in Africa under the Uptime Consortium. Working in Burkina Faso, Central African Republic, Kenya and Uganda, the five professional maintenance delivery companies guarantee reliable water to over 1.3 million people in 2020. Uptime has developed a common contracting and operational reporting system for the five companies. In 2020, the Uptime Consortium Facility (UCF) was established and raised c.USD1 million to fund results-based contracts for 1.3 million people.

In collaboration with the REACH programme and the Rural Water Supply Network, the Uptime Consortium is working on a global diagnostic to identify professional service providers and national governments to scale-up the work to 100 million by 2030. This will require larger-scale and longer-term funding commitments to ensure growth and sustainability at scale. New work is exploring results-based contracts for safe water services in schools in Kenya and adapting the model to Bangladesh.

## Research to support policy and practice

Building on research led by Oxford since 2010, REACH is rethinking the institutional and policy design for rural water services in Africa and Asia. Two contributions include understanding (1) how risk shapes institutional design and (2) how rural water use behaviour interacts with regional and seasonal rainfall variability.

Theoretical work has promoted new thinking on how risks and responsibilities can be allocated between the state, market and communities to network more sustainable services at scale. This addresses the current paradigm of community management as the default approach common across Africa and Asia. Empirical work has modelled socio-climatic interactions in East and Southern Africa to reveal how rainfall variability influences water use demand, and how tariff design can reduce water use consumption. A switch to a non-volumetric monthly fee is less likely to reduce water demand than a volumetric tariff. This can target scarce resources at those most in need in regions in drought conditions compounded by the COVID-19 crisis.



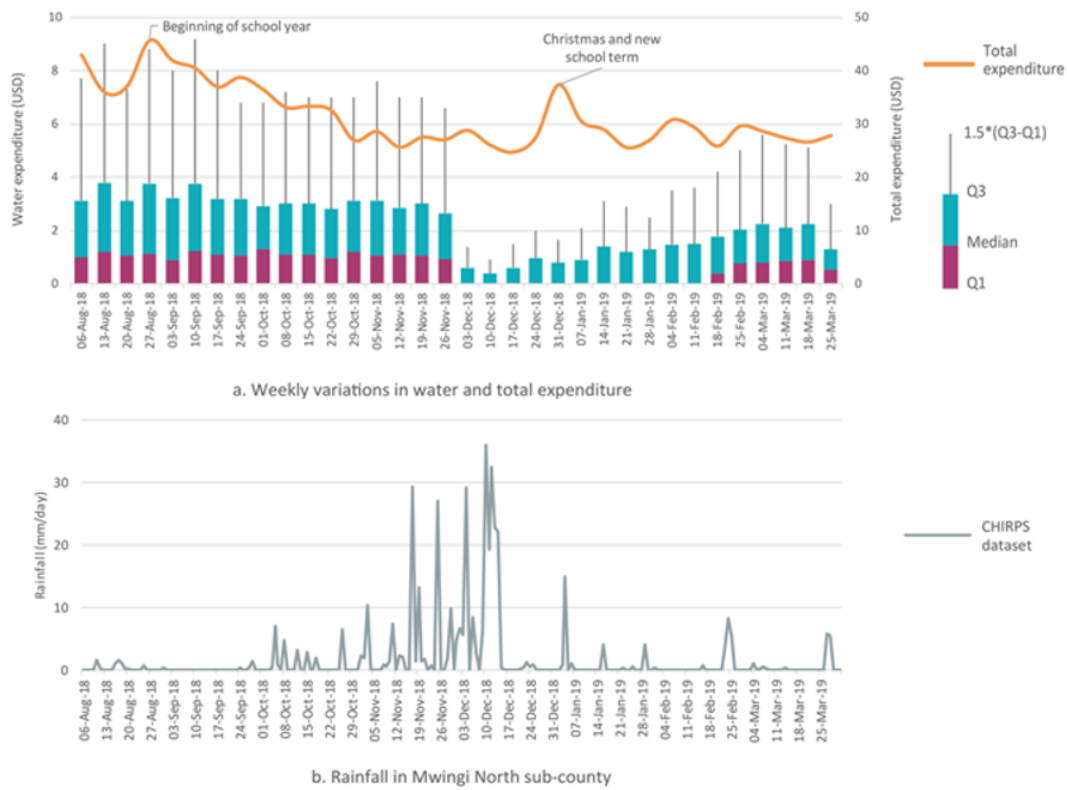


Figure 5: Weekly expenditure and water use in Kitui based on water diaries, August 2018-March 2019 (top); Rainfall in Mwingi North sub-county (bottom)

## Using evidence to support policy reform

*Reform to the Kenyan national Water Act in 2016.* Article 93 recognises alternative service delivery models beyond community management for the first time. This policy change was informed by research from the Oxford team and the early results of the FundiFix model.

*Contributions to the 2019 Kitui County Water Bill.* In 2019, the Kitui County government invited REACH technical assistance to consult on the first Water Bill for the County. This work builds off Article 93 and also includes provision for public finance to support maintenance services, exclusive service areas allocating risk and responsibilities, and improved regulation and monitoring, including water quality and water safety planning. In partnership with UNICEF and national government, these changes are influencing other Counties, including the establishment of a similar Trust Fund in Turkana County following similar principles and service delivery goals.

*Reform of National Policy in Bangladesh, and development of the SafePani model.* In Bangladesh, the experience and lessons are shaping reform of the 1998 National Policy for Safe Water Supply and Sanitation. A joint report by the REACH team with UNICEF and national government describes the 'SafePani' model which adapts lessons from Africa with emphasis on water quality and climate resilience.

*Rapid growth and uptake of the Uptime Consortium.* REACH's work is supporting the Uptime Consortium and the design of a new contracting model at the regional and potentially global level. USD1 million of initial funding was generated for the Consortium from Aqua for All, Conrad N Hilton Foundation, Osprey Foundation, Vitof Foundation, Vox Impuls and Waterloo Foundation.

## What's next?

The global diagnostic study will provide evidence to inform a strategy to reach 100 million people by 2030. The Uptime Catalyst Facility is testing a common contractual framework which will support this strategy. The progress of the WSMTF in Kenya and the Uptime Consortium indicate there are results-based funds available subject to verifiable results of the reliability of waterpoints, the volume of water supplied and sharing costs with user payments. New work is charting approaches to monitor and treat drinking water quality, ensure payments are affordable, and to include schools and healthcare facilities in exclusive service delivery areas. Long-term and ring-fenced budget commitments from national and sub-national governments will be critical to promote sustainability.

## Selected outputs:

### Working Papers:

- Hope, R., A. Fischer, S.F. Hoque, M.M. Alam, K. Charles, M. Ibrahim, E.H. Chowdhury, Z.H. Mahmud, M. Salehin, T. Akhter, D. Johnson, S.A. Hakim, P. Thomson, J.W. Hall, J., O. Roman, N.E. Achi, and D. Bradley (2021). Policy reform for safe drinking water service delivery in Bangladesh. REACH Working Paper 9, University of Oxford, UK.
- Hope, R., Katuva, J., Nyaga, C., Koehler, J., Charles, K., Nowicki, S., Dyer, E., Olago, D., Tanui, F., Trevett, A., Thomas, M., and Gladstone, N. (2021). Delivering safely-managed water to schools in Kenya. REACH Working Paper 8, University of Oxford, UK. ISBN 978-1-874370-82-6.
- Hope, R., Thomson, P., Koehler, J., Foster, T., Thomas, M. (2014) From Rights to Results in Rural Water Services - Evidence from Kyuso, Kenya. Water Programme, Working Paper 1.
- McNicholl, D., Hope, R., Money, A., Lane, A., Armstrong, A., Dupuis, M., Harvey, A., Nyaga, C., Womble, S., Allen, J., Katuva, J., Barbotte, T., Lambert, L., Staub, M., Thomson, P., and Koehler, J. (2020). Results-Based Contracts for Rural Water Services. Uptime consortium, Working Paper 2.

### Journal articles:

- Hope, R., Thomson, P., Koehler, J. and Foster, T. (2020) Rethinking the economics of rural water in Africa. *Oxford Review of Economic Policy*, 36(1): 171-190.
- Thomson, P., Bradley, D., Katilu, A., Katuva, J., Lanzoni, M., Koehler, J. and Hope, R. (2019) Rainfall and groundwater use in rural Kenya. *Science of The Total Environment*, 649: 722-730.
- Koehler, J., Rayner, S., Katuva, J., Thomson, P. and Hope, R. (2018) A cultural theory of drinking water risks, values and institutional change. *Global Environmental Change*, 50: 268-277.
- Foster, T. and Hope, R. (2016) A multi-decadal and social-ecological systems analysis of community waterpoint payment behaviours in rural Kenya. *Journal of Rural Studies*, 47(A): 85-96.
- Armstrong, A., Hope, R. & Munday, C. Monitoring socio-climatic interactions to prioritise drinking water interventions in rural Africa. *npj Clean Water* 4, 10 (2021). <https://doi.org/10.1038/s41545-021-00102-9>

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- **Uptime Consortium** – Dr Duncan McNicholl and partners: FundiFix Ltd. UDUMA, Whave Solutions, Water for Good, WaterMission

### More information available at:

[www.reachwater.org.uk/](http://www.reachwater.org.uk/)

[www.smithschool.ox.ac.uk/research/water/](http://www.smithschool.ox.ac.uk/research/water/)

[www.uptimewater.org/](http://www.uptimewater.org/)