

6 CLEAN WATER AND SANITATION



February 2023

Improving access to water and sanitation through DIGITAL FINANCIAL INCLUSION

Globally, 2 billion people lack consistent access to clean drinking water, and 3.6 billion have no access to basic sanitation facilities, resulting in 1 million preventable deaths each year.^{1,2,3} Over 355 million women and girls had no access to basic sanitation in 2017.⁴ For communities living with very low incomes, reliable water supplies help them to withstand climate change, such as longer dry seasons and flooding.⁵

OPPORTUNITY

Digital financial services can make safe drinking water and basic sanitation facilities more affordable and locally accessible. Local access frees up time for women, who are usually in charge of water collection, allowing them to pursue more productive activities. It can also prevent the spread of waterborne and hygiene-related diseases and deaths.^{6,7,8}

CHALLENGES

- Water and sanitation providers that want to reach rural customers with affordable water and sanitation services face **high operating costs**. This limits their ability to expand services to people with low incomes and makes these services prohibitively expensive to access.^{9,10}
- Women are responsible for collecting water in 80% of low-income households, and African women spend up to an hour¹³ collecting water each day. The **time burden for water collection is increasing¹⁴ due to climate change**, as droughts create water shortages and floods result in water contamination, forcing women to walk further to find safe water sources.^{15,16,17}
- Poor water and sanitation conditions are directly linked to the **1.7 billion annual cases of diarrhea in small children**, 3 million cases of cholera, and 11 million cases of typhoid fever.¹⁹

SOLUTIONS

- Digital payments **reduced revenue-collection costs by up to 95%** for water and sanitation providers in Ghana. This can make water and sanitation services more affordable.^{11,12}
- Digitally enabled micro-loans, savings, and pay-as-you-go products can make **safe and sustainable water and sanitation services accessible to women** in low-income households. Local access frees up time for productive activities and improves women's economic empowerment outcomes.¹⁸
- Digital wallets can make it **easier to save and to pay** for water and sanitation services, allowing low-income and vulnerable people to live in more hygienic conditions.²⁰



BANGLADESH, CAMBODIA, INDIA, LAO PEOPLE'S DEMOCRATIC REPUBLIC

After switching from cash to prepaid cards, Drinkwell—which has provided safe drinking water to over 250,000 people through 200 water ATMs—reported **a significant drop in the cost of collecting payments, from 20% to 2% of revenue.**^{21,22}



MADAGASCAR

Container toilet company Loowatt cut its operating expenses by 20% when it shifted from cash to digital collections. It passed on these savings to customers, making sanitation services more affordable. Loowatt is expanding from 520 to 1,100 home toilets in Antananarivo.^{23,24}

KENYA

Sanergy makes low-cost portable sanitation facilities and sells them through a franchise model, in which residents can pay the small subscription fee to local franchisees/entrepreneurs through a digital wallet. More than 127,000 people living in urban areas with low incomes now have access to hygienic sanitation systems using this model.^{25,26}



WORLDWIDE/ BANGLADESH

According to the Global Findex, nearly 9% of individuals in low-income countries used mobile phones to make utility payments in 2021, up from 3% in 2017. In Bangladesh, the proportion of adults who made a utility payment through a financial account went up from 11% to 25% between 2017 and 2021.²⁷



TANZANIA

A water payment digitization project resulted in a tripling of water utility payments, and a **reduction in the average daily water-collection waiting time from 3 hours to 10 minutes,** benefiting women in particular.²⁸



1. WHO, 2021. 2. Ritchie and Rose, 2021. 3. Water.org, 2022. 4. Crowley, 2017. 5. United Nations, 2019. 6. IRC, 2021. 7. UNICEF, 2016. 8. OECD, 2021. 9. Njoroge, 2021. 10. Waldron et al., 2019. 11. Morais and White, 2020. 12. Njoroge, 2021. 13. UNICEF, 2016. 14. UNICEF, 2022. 15. Ibid. 16. WHO and UNICEF, 2017. 17. UNICEF, 2016. 18. IRC, 2021. 19. CDC, 2020. 20. Waldron and Sotiriou, 2018. 21. Waldron et al., 2019. 22. GSMA, 2019. 23. Waldron et al., 2019. 24. Njoroge, 2021. 25. Mastercard, 2018. 26. Sanergy, 2022. 27. World Bank, 2021. 28. Water.org, 2018.