

In Brief: Water Compass' Solar Powered Water Supply Stations

To significantly improve the quality, reliability and sustainability of rural water supply in Uganda, Water Compass constructs and operates Solar Powered Water Supply Stations

The current water supply situation in rural communities in Uganda is dire. Water Compass assessed over 1,750 water sources in central Uganda and found 55% to be non-functional. Most had been broken for over one year. Due to limited and outdated infrastructure, coupled with mismanagement, millions of people live without access to clean water every single day.

Water Compass seeks to change this situation. Upon request by communities, Water Compass assumes the management of water sources in order to improve the technology, operation, maintenance, and payment system. We do this by utilizing increasingly available and affordable technology.

Solar Power

Water Compass solar uses powered technology to keep operating costs low and ensure systems can function anywhere. Hand pumps are replaced with solar-powered pumps and our digital payment system is also It has been solar-powered. shown that the use of solar power can reduce energy operating costs by 80% (Safe Water Network, 2017). And it's also great for the environment!

Digital Payment System

We utilize a digital payment system to improve revenue collection and greatly enhance accountability. With our system, users buy water credit from an agent who loads the credit onto a user specific token. Users then touch their token to a sensor at the water station which releases water and debits their account for the amount of water taken. All transactions can be followed via an online dashboard.

Remote Monitoring

The functioning of the water station is monitored remotely as both the pumping and payment systems can inform a technician of any problem via text message. This eliminates the need to make unnecessary visits and further reduces operating costs. Data is also collected on several indicators such as water quantity provided, individual usage and peak demand times to improve service delivery.









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Local Employment

At each of our water stations, Water Compass has a local agent who is responsible for keeping the station clean, informing Water Compass of any issues, selling water credit to users, loading the credit onto their tokens, and transferring the money to Water Compass via a mobile app. Every agent receives a 10% commission of the credit they sell each month. Additionally, Water Compass provides them space in the water station free-of-charge to run a small business which provides them with another source of income. The arrangement is a win-win for Water Compass and the agent to work together and keep the water station operating and providing the local community with a reliable source of clean water.



Pictured above is our very first agent, Nalongo (meaning mother of twins), in her small shop inside the water station.

Model of Reinvestment

Water Compass is a non-profit organization which is not burdened by the need to provide a return to investors or shareholders. Instead, all revenue generated by water stations is used to maintain the systems as a first priority. As total revenue grows over time, it is reinvested to expand existing systems. As more water stations come into operation, the collective revenue generated will be used to fund the construction of new water stations to further increase access to clean water supply and eventually become a self-sustaining model.

