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The mWater platform includes visuals of the water network



A water utility director enters repair data into mWater

Photo credit: USAID

Strengthening water utilities management in Haiti through digital platforms

Haiti's decentralized water utilities across the country are intended to operate as self-reliant business units. However, an absence of information management has hindered efficient operations and revenue collection. The USAID Water and Sanitation Project helps local utilities to adopt existing digital technologies to collect and use data on their water network.

The free and open access **mWater** platform enables water utilities to compile data and view their networks. In Haiti, local utility workers use tablets to log infrastructure – such as pumps and pipe junctions – and customers, as well as to track leak repairs. The utilities use mWater to report on their performance indicators, including water production, number of active and passive customers, revenues and expenses, and the results of water quality tests. The geo-tagged, aggregated data entries on mWater allow decision makers to analyze data on maps as well as dashboards. With all of the data in one place, leaders can more quickly identify emerging problems; for example, anomalies in the volume of water pumped month on month can indicate issues like leakages.

The Project is also using is a customized, digital database to track customers' accounts. Most customers don't pay their invoice monthly and therefore accrue arrears. By issuing individualized invoices, customers can actually see how much they owe. As a result, collections have more than doubled for some of the utilities. As revenues increase, so does the need for transparency. Therefore, all of the local utilities are starting to use Quickbooks for their accounting.

Through all of this, mWater remains the central hub. The Project team is working with mWater to integrate these different data sources into the central reporting framework. The overall vision is that mWater will provide the central authorities with a clear dashboard that shows how each utility is performing.

Driving utility uptake of these tools is a complex task. Staff time is required for entering data into the systems, while utilities may not appreciate increased transparency into their operations if the data reflects poorly on them. To offer an immediate incentive, the project ties assistance to the utilities to their consistent reporting and facilitates positive competition around the reported data to motivate utilities. Ultimately, increased revenues from improved management of the water systems is the best incentive for change.

Use of these digital platforms provides a foundation for growth and maturity of the utilities sector. The Project sees significant potential to integrate additional digital technologies for future efficiency gains – including smart sensors, a meter reading app, and mobile payments.