



IMA WORLD HEALTH



UKaid
from the British people

WATER ATMS

in the Democratic Republic of Congo

ASSP and ASSR - 2013 to 2022

AN INNOVATIVE APPROACH TO CONGO'S WATER PROBLEMS

INTRODUCTION

DRC has long struggled, both socially and economically, under the weight of poor access to water and sanitation. According to UNICEF, nearly 60 percent of diarrhea related deaths in children under five worldwide are caused by unsafe drinking water and poor sanitation and hygiene. DRC's 2018 Multiple Indicator Cluster Survey, or MICS for short, identifies Congo as one of the most water rich countries in the world, yet only 59 percent of people have access to an improved source of drinking water like pumps, spring caps, and cisterns. This leaves 38 million people relying on poor sources for their daily intake of drinking water. For these people, the mere act of getting water requires a huge amount of time, often relegated to girls who would otherwise be at school. These girls face the danger of sexual exploitation as they are often deep in the forest alone. When the water reaches the household, it is often contaminated with parasites that cause diseases like diarrhea, which is one of the principal causes of death in children under five in the world. The WHO Maternal and Child Epidemiology Estimation reports that 9 percent of deaths in children under five are attributable to diarrhea in DRC. According

to DHIS2 data, the national routine data collection system implemented by IMA in partnership with the Ministry of Health, IMA's ASSP/R project supported health facilities reported more than 500,000 cases of diarrhea in 2021.

WHAT ARE WATER ATMS?

Water ATMs are automated units that dispense safe drinking water to communities for a small fee, which is used to maintain the system. The credits are bought from credit sellers using a smart phone to transfer credits to a Near Field Communication (NFC) key, which the beneficiary can then use to purchase water. Every 1¢ of credit buys five liters of water. The keys can be set up to give free water as well. For this project, every family got five liters free every day and the health center got 80 liters free.

DISPENSING WATER

During ASSR, four water ATMs were installed at two health facilities, Cerdés and Kamilabi. This assured clean water at health facilities and provided professional health care workers for management of the system. Having the water ATMs at the health care facility also provided easy marketing of the systems to people coming for health



care and preventative services. The installations were done at existing bore holes near the health facilities that had long been in disrepair. The broken pumps were removed, and plumbing was repaired at a low cost. Then water ATMs were added for dispensing the water. There are many sites such as these around DRC that are not currently functional because the pump, generator or plumbing is broken. These problems can be fixed and water ATMs added at a low cost.

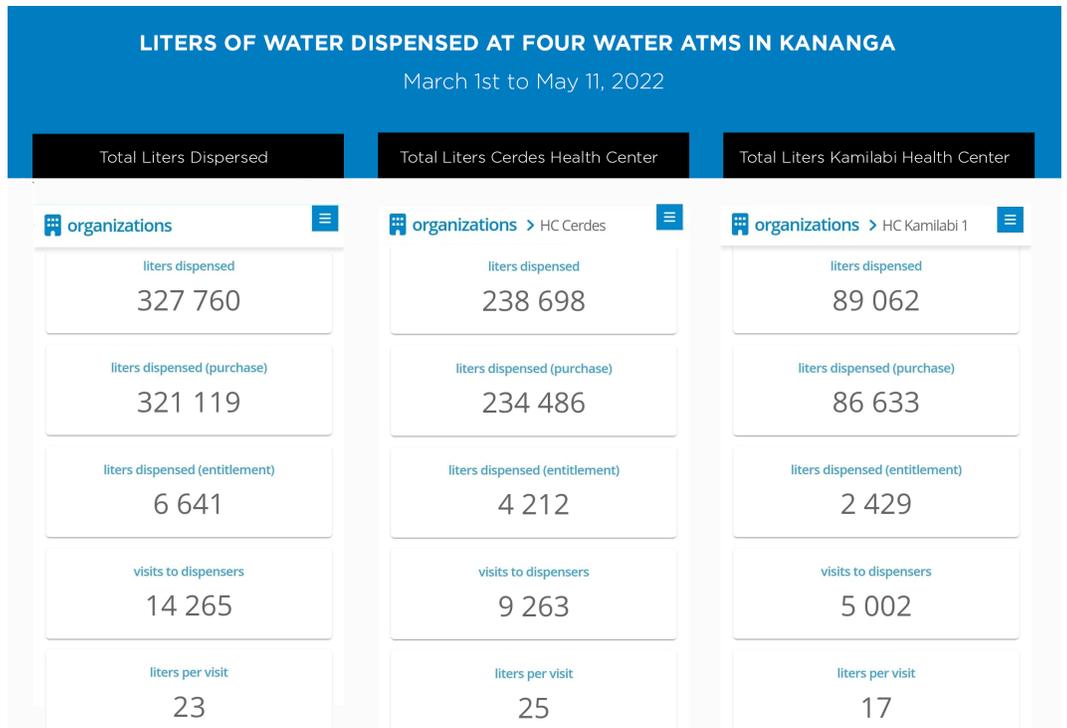
The families in the communities surrounding the health facility were given an NFC key at a subsidized rate. They then bought credits from a credit seller at the health facility with a smart phone app for transferring the credits to the key. When the key is placed on the water ATM, water starts flowing and credits are consumed.

The graphic below displays screen captures of the Lorentz phone application's reports on liters of water distributed.

"We installed two Water ATMS at Cerdes Health Center in Katoka Health Zone and two Water ATMS at Kamilabi 1 Health Center in Ndesha Health Zone. Kamilabi's water well was not working for about a year or more. In the meantime, they lost their customers. We repaired it. And then we installed two Lorentz Water ATMs. At Cerdes, we just had to install their two Lorentz Water ATMs on a Sunday before it rained. Their transition went very good. Cerdes has dispensed 238,000+ liters. Kamilabi has dispensed only 86,000+ liters. Both sites have dispensed 327,000+ liters. Since March 1! We scratched about 1-2 weeks of data.

Woody Collins, Founder, Congo Helping Hands

327,760 liters of clean water have been distributed in only two months.



SCALING UP: POST ASSR

PROJECT FINANCING

The average health center serves 10,000 people which is about 1,500 families. If 20 percent of the families get 20 liters a day from the water ATM, that will represent about \$23 a day or over \$8,000 a year. Experience has shown that it will cost about \$100 a month to maintain the system and replace parts when they break. Going forward, the money from water sales will be divided approximately as follows, 10 percent for the water seller, 15 percent maintaining the water system, 50 percent going to subsidizing health care at the health facility and expansion of services, and 25 percent going to the management of the project.

INSTALLATION AND MAINTENANCE OF WATER SYSTEMS

IMA contracted with Congo Helping Hands (CHH), an NGO with years of experience in doing water projects in Congo, to repair the existing systems, install the water ATMs, and train the sellers and community in how to use the system. They will also repair the system if it breaks. After the pilot phase when there is project money available to expand the system, IMA and CHH will work together to create teams to do well drilling and systems installations. It is anticipated that 50 to 100 systems can be installed each year.

SUPPORTING HEALTH CENTERS AND HOSPITALS

Money from the sales of water credits will be directly deposited in an IMA bank account. A cloud-based monitoring system developed by Lorentz will be used to track where the money is being generated and all the statistics on the water usage. A sub-account will be set up for every health facility where a water ATM system is installed. Using data from the national health system (DHIS2) 50¢ of subsidy will be credited to the health facility for every episode of illness. This subsidy will be available to the health facility as a line of credit at the provincial drug depot (CDR). It will give the health center a 50 percent reduction in the cost of drugs up to the limit of the subsidy. Quarterly alerts of the drug credit balance will be sent to every health facility and CDR by text and email. Health finance modeling that IMA has tested for the last decade shows that this amount of subsidy will make most health centers financially sustainable.

It is anticipated that the income from water sales will be more than what is needed for the drug subsidy. The extra money will be used to expand the water system to new sites. It will also probably be used to provide free health care to indigent patients and make household

sanitation affordable to families through a voucher system with local sanitation enterprises.

PROJECT MANAGEMENT

IMA has a partnership agreement with Lorentz for purchasing their Smart Tap water ATM units and other materials at wholesale prices. This in conjunction with IMA's 100 percent exoneration for development materials will allow IMA to develop this program at a low cost. As the program grows, IMA will hire a team to handle the financial, procurement, logistic, contractual, and technical aspects of this project. There will also need to be numerous local partners in each province the project expands into for the installation and maintenance of systems.

