



BACKGROUND

World Hope International (WHI) is a Christian relief and development organization working in approximately 20 of the world's poorest countries to alleviate poverty and injustice for all people, using market-based and community-driven enterprise solutions. Since 2004, WHI's WASH program has been delivering clean water to communities and schools in Cambodia, Haiti, Malawi, Mozambique, Sierra Leone, Liberia and Zambia and constructed 1,478 drilled wells in six of the countries. WHI's current WASH programming is focused on Cambodia, Haiti, Sierra Leone and Liberia.

CAMBODIA

In Cambodia, WHI has developed a piped water business through an innovative market-based water utility. WHI has done this by forming a social enterprise called [TapEffect](#). Through TapEffect, WHI is constructing piped water systems for smaller communities and setting up a viable business to operate the systems. The systems treat ground and underground water and deliver water via a network of pipes to homes. Each home has a water meter and makes monthly payments to sustain the enterprise. To date, over 20,000 people receive and pay for water through TapEffect's piped water solution, including 10 schools and 2 medical clinics. This enterprise is licensed by the Government of Cambodia to sell water in the districts where it operates in Banteay Meanchey and Mondulkiri. WHI is exploring additional locations where TapEffect can operate in Cambodia.

HAITI

In Haiti, WHI partnered with the GivePower and Katadyn to develop a solar-powered, reverse osmosis water desalination plant (\$500k), that produces 20,000 gallons of treated water per day from brackish water, on the island of La Gonâve for the Wesleyen Hospital (the only hospital on the island) and sells water wholesale to vendors who market the water to the community of 50,000 people. WHI is exploring additional locations in Haiti where this technical solution will work. As part of our Village Partnership program, WHI is also beginning to hire local well drillers in Haiti to bring clean water to schools and communities.

SIERRA LEONE AND LIBERIA

The primary objectives of the WASH program in Sierra Leone and Liberia are to improve the health and productivity of people in poor communities. WHI has a fully vertically integrated drilling program, with high capacity and expertise in geophysical analysis, construction and sanitation development. In Sierra Leone, WHI's WASH efforts are anchored by geologist, Desmond Pratt, along with two



experienced well drillers and master mechanic, Eugene Ekwem, from Nigeria. WHI has three drilling rigs in Sierra Leone, a complete mechanics garage, and a warehouse for storing supplies and equipment parts. WHI has a smaller operation focusing primarily on well drilling in neighboring Liberia which receives support from Sierra Leone when needed. Using the Syscall Junior Resistivity Meter and 4 kinds of analytical software, WHI staff have gained proficiency in conducting geophysical surveys to locate groundwater to increase yields. In Sierra Leone, WHI has 2D analytical capacity while in Liberia 1D capacity. In a nationwide survey of 28,000 water points in Sierra Leone, it was discovered that 60% of the common shallow hand-dug wells go dry during the long dry season. Surveys have shown that 97% of WHI drilled wells have water year-round. In Sierra Leone, WHI has a borehole camera to investigate existing drilled wells.

COUNTRY	FIRST WELL	PROGRAM END	# OF WELLS	# OF BENEFICIARIES
MOZAMBIQUE	NOV 2004	JUNE 2018	355	245,399
LIBERIA	OCT 2006	ONGOING	313	284,428
SIERRA LEONE	DEC 2007	ONGOING	561	335,750
ZAMBIA	JULY 2007	AUG 2012	158	59,507
MALAWI	MAR 2009	NOV 2011	73	58,057
CAMBODIA	JULY 2014	ONGOING	18	1,487

Note – in Cambodia we hire local well drilling companies.

In 2014, WHI began bidding on tenders from other organizations and UN agencies. WHI won its first government grant from the UK during the Ebola crisis in Sierra Leone to drill 25 wells at Ebola isolation centers. After Ebola subsided, WHI won a USAID-funded contract from JSI to construct complete piped water systems for 22 health clinics which included drilling a well, building a water tower and installing a solar-powered pump. WHI constructed a similar water system for one hospital in Liberia. WHI also received a grant from UKAID to construct the same water system plus toilets, showers and hazardous waste disposal units at 34 clinics in Sierra Leone. WHI continues drilling wells and installing handpumps in communities and at schools.



WATER & SANITATION APPROACH

Sustainability is important to us. We want to see our wells bringing a better life for decades to come. To achieve this, WHI installs high-quality handpumps with stainless steel below-ground components. This means pumps that will last 20 years or more. WHI trains a Water Committee at every well which manages and maintains the well and teaches the community about good hygiene practices. People are taught about the risks of open defecation and the need for handwashing with soap after using the toilet or cleaning babies, and before food preparation and eating. The committee consists of 7 persons with a minimum of 3 female members. One member is designated as the Hygiene Promoter for the community and another is the Treasurer. The committee is encouraged to collect small fees from the water users in order to have funds available for routine pump maintenance. One person is the Pump Caretaker who does routine maintenance on the pump head.

With a regional office in Makeni, Bombali District, Sierra Leone, WHI is capable of delivering a complete WASH package. In total, the WHI WASH package for a community includes:

1. Provision of year-round safe water supply primarily through boreholes with a handpump
2. Training of a Local Well Committee to manage the well
3. Training of local handpump mechanics in strategic areas
4. Provision of gravity-fed water systems for health posts and larger schools
5. Provision of school toilets
6. Provision of handwashing stations
7. Hygiene training targeting schoolteachers and students
8. Training of health post workers and health volunteers in hygiene promotion
9. Training of community members in hygiene through the CLTS methodology
10. Training in construction of toilets using only local inexpensive materials

KEY PARTNERSHIPS:

To accomplish our WASH work, WHI has partnered with United States Agency for International Development (USAID) Advancing Partners & Communities Project/John Snow Institute (JSI); Department for International Development/UK Aid; United Nations Children's Fund (UNICEF); United Nations Office of Project Services (UNOPS); Rotary International; Engineers Without Borders-Denmark, Catholic Relief Services (CRS), GOAL Ireland, Habitat for Humanity, GivePower, Katadyn, ADDAX Bioenergy, Sierra Tropical Ltd, and numerous private equity donors and North American churches. WHI is committed to providing the resources and training necessary to make a sustainable, positive health impact in Sierra Leone, Liberia, Cambodia, and Haiti producing a year-round water supply that is safe for drinking.

