



EMBRACE RELIEF'S

APPROACH TO THE CLEAN WATER CRISIS AND ITS EFFICACY



I. Executive Summary

As sources of drinking water around the world continue to be polluted, reduced in size, and are needed more with continued population growth, the clean water crisis only continues to grow in scale.

This increasingly growing problem will not solve itself; sustainable long-term change is needed. But while such change is still in development, it is important to alleviate the suffering of those in need through localized, short-term solutions. That is where Embrace Relief focuses its efforts.

Embrace Relief aims to provide a localized source of clean drinking water to villages across sub-Saharan Africa. This is done by:

* Repairing water wells that have fallen into disservice

• Building new wells for those that need it the most

Embrace Relief is able to achieve this through our "triangle approach," which connects donors, local public- and private-sector partner organizations, and our ever-growing network of volunteers.

Our method has allowed us to **build** and **repair** over

610 water wells



Providing over

610,000 people

access to a safe and reliable source of clean drinking water

II. An introduction to Embrace Relief

The Embrace Relief Foundation is a registered 501(c)(3) nonprofit humanitarian aid organization headquartered in Fairfield, New Jersey, which focuses on a variety of different programs designed to reduce suffering and promote human development around the world.

These programs have been developed in harmony with the United Nations' Sustainable Development Goals (SDGs), which provide a framework for "shared peace and prosperity for people and the planet."





Since 2013, Embrace Relief has operated programs in more than 40 countries, centered on eight different humanitarian causes that address the majority of SDGs: hunger relief, clean water, women's empowerment, health and wellness, relief for children, disaster relief, education support, and refugee relief.

III. The Global Clean Water Crisis and Sustainable Development



SDG 6: Ensure availability and sustainable management of water and sanitation for all

Providing clean water and sanitation to all is perhaps the Sustainable Development Goal with the farthest-reaching effects, if it can be properly achieved. In the United Nations World Water Development Report, it's estimated that already 3.6 billion people are faced with water scarcity for at least one month of the year. By 2050, it's predicted that this number could rise to upwards of 5.7 billion.

The lack of easily accessible water, and the struggle to obtain contaminated water, impacts multiple of the other Sustainable Development Goals.

When drinking contaminated water these illnesses can be transmitted:

- Diarrhea
- Dysentery
- Cholera
- Typhoid
- Schistosomiasis
- Polio



Approximately 829,000 people die every year directly due to drinking polluted water, 297,000 of those being children under the age of 5. As water scarcity grows in scale, this number is guaranteed to rise, making Good Health & Well-Being (SDG #3) a nearly impossible goal to reach.



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being children under the age of 5 Oftentimes, it is women and children who have to go and collect water for their household. Each trip to collect water takes approximately a half-hour in sub-Saharan Africa, and this time can easily add up. Keeping children out of school to fetch water for their families hinders Sustainable Development Goal 4, Quality Education. When women are spending time collecting water, they are unable to pursue opportunities like furthering their education or entering the workforce, leading to gender inequality. To be able to give women a better life and further Gender Equality (SDG #5), we must first address the clean water crisis.

Around the world, 70% of available freshwater is used solely for agriculture. However, 60% of this is completely wasted due to poorly-constructed irrigation systems, as well as growing heavily water-dependent crops in drier areas. Water runoff from agriculture becomes contaminated with pesticides and fertilizers, making it unsafe to drink. This level of water usage is unsustainable, and combined with an ever-growing global population, already 41% of the world's population is living near basins that are under stress.

For this water crisis to be prevented, massive changes need to occur in how we grow our food and distribute our water resources.



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However, those who are suffering without water now cannot wait for these structural reforms to occur. Dry areas often have water reserves deep underground, and contaminated water can become clean again through filtration systems. These sources of water are impossible to access without the proper equipment, but with a little help, people can have clean water again. That is the mission of Embrace Relief.

IV. Embrace Relief's Approach to Providing Water

Embrace Relief believes that building and reconstructing water wells is the best way to directly provide clean water to those most in need. This is accomplished through our "dynamic triangle" of donors, partner organizations, and volunteers. The donations we receive are directly turned into aid, and to date, we have built and reconstructed over 610 water wells, serving over 610,000 people.

To identify where water wells need to be built the most, Embrace Relief coordinates with partners who are local to the area, and who can accurately evaluate the level of water scarcity on the ground. Our donors can also start specific water well projects which can address the needs of people living without water across sub-Saharan Africa. The funding we receive, the local information we gather, and the volunteers who sacrifice their time to help others, all combine to make our Clean Water Initiative as efficient as possible.







Donors:

Since its founding, Embrace Relief has developed a large, organic network of donors who are passionate about all of its causes, hunger relief chief among them. Central to this relationship is trust. With more than a decade of organizing successful food distribution, Embrace Relief offers donors a stable, credible outlet capable of reaching nearly every location affected by hunger around the world.

When a donor gives their money or materials to Embrace Relief, they can be assured that it will go directly to people who need support. And as we document nearly every event we organize with photos and videos, donors can often see the faces of the people their funding directly supports.



Partners:

Just as Embrace Relief continues to seek out donors, we also are constantly searching for local grassroots organizations, who are actively embedded in their communities, to join in partnership. Again, here is a dynamic in which both sides obtain something of great value. Partner organizations possess the local knowledge and deep connection to people in their community, allowing them to identify where the need exists for, e.g. food relief. Local partners give Embrace Relief an entry point into these vulnerable communities that it otherwise might not have.

On the other hand, Embrace Relief can offer its institutional and organizational knowledge from its years of relief efforts, as well as the substantial resources we can generate from our donors. And by working directly with local organizations, Embrace Relief builds long-lasting bonds while retaining the flexibility to direct its funding to new challenges and new locations where it may be needed.

Volunteers:

The backbone of any humanitarian organization is its volunteers. These are the people who selflessly lend their time and expertise in support of their fellow man. In the realm of hunger relief, Embrace Relief's corps of volunteers includes people who pack food packages, drive the food packages to the door of beneficiaries, or serve hot meals at a community center.

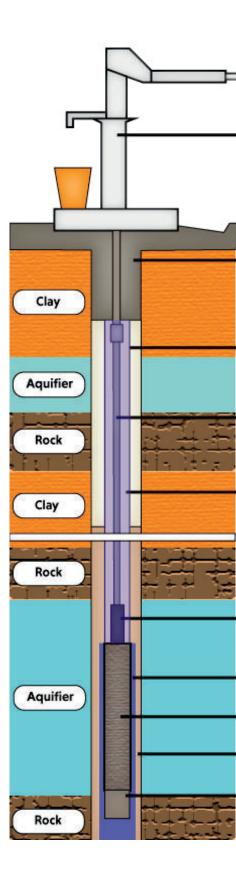


V. Building Our Wells

In sub-Saharan Africa, the vast majority of surface water has been contaminated by chemicals, livestock, or people. This surface runoff can enter the ground, causing contamination of underground water reservoirs. In order to avoid any pollution of our water wells, we seal the top with cement to prevent surface runoff. Our wells are also dug to a depth of 45 meters (147.64 feet) to ensure that the water we are accessing is clean. A filtration system is added to the water well to remove any impurities that might still be present in the water, giving the people on the surface access to clean and safe drinking water.

Installing these wells is often done with limited tools, due to heavy machinery not being able to access the rural communities that are most in need of a clean water source. Much of the work is done by hand, and would be impossible without the help of our local partners and volunteers.

To give our wells the longest life possible, we build each with a manual pump, reducing the chances of people not being able to access the water due to a malfunction. However, if a malfunction occurs, each of our wells are protected under a five-year warranty. An additional five-year warranty may also be purchased by our donors. To make sure each and every well is producing the best quality of water possible, Embrace Relief visits every well annually for the first five years of construction for any maintenance needed. This allows the well to continue producing water for much longer than some of our competitors.



VI. Conclusion

This paper is meant to detail Embrace Relief's approach to the clean water crisis, and to showcase the successfulness of our ongoing efforts. Our approach to this problem is simple and straightforward, but its efficiency has proven itself over the last ten years and continues to set us apart from our fellow humanitarian nonprofits.

Our "dynamic triangle" approach has proven to be the most effective way to tackle the problem of clean water. Connecting the funds from our donors to the locals that have the most information, and the volunteers that have the most willpower, means everyone is benefitting. Each part of our triangle can be assured that we are reaching our goal; to help the people who are suffering most from the lack of clean water. We hope that, through this framework, our readers will join us supporting our initiative. We are always interested in hearing any comments or feedback you may have.











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