

Betsy Hobbs
McCutcheon High School
Lafayette, IN
Haiti, Factor 18

Haiti: Short Term Fix and Long-Term Change

Water is the vein of existence for life on Earth. No living being can survive without this basic resource, yet many Haitians go without seeing, or even drinking clean water for days on end. Inadequate supplies of clean water will manifest itself on many levels: disease, malnourishment, famine, and eventually governmental chaos.

Lack of clean water is nothing new for most Haitians. In 2009, Haiti was a developing nation but had a much greater supply of clean water than it does today. On January 12, 2010, a 7.0 magnitude earthquake hit Haiti. This earthquake killed 300,000 people in Haiti. The damage from the earthquake was severe, leaving very few people unscathed. The earthquake caused widespread destruction of millions of homes, as well as infrastructure. The tragedy also led to intense shortages of food. The few sanitation facilities available in Haiti had now become non-existent. The lack of sanitation facilities after the earthquake resulted in the loss of any chance Haiti had of building up their clean water supply. Sewage was running through the streets along with piles of trash. Eighty percent of sewage was deposited directly into rivers and streams, along with chemicals from agriculture, and industry waste ("Water Quality").

Contamination from un-sanitized water then revealed itself in the form of higher acidity and concentration of nutrients, metals, toxins, and pathogenic organisms in food. Not only was sewage dumped in water, but bodies of water were also used for bathing, washing vehicles, clothing, and for hydrating livestock. Thus, germs and diseases were passed not only through waste, but also through dirty items cleaned in drinking water. Pollution (of all forms) was and still is one of the main issues surrounding water sanitation. Water can be polluted from multiple sources including: pesticides and elements used in farming, chemicals, toxic waste from industries, and human and animal waste. With the sheer number of people in Haiti, chances are good that if the population slows, water will already be cleaner; fewer diseases will be transmitted from fecal matter and diseases caused by chemicals and bacteria will lessen. If pollution continues to rise as a result of a growing population, more time and money will be spent further sanitizing water; yet water will gradually become even more dangerous to consume in any form.

The lack of clean water lends itself to the fact that the people in Haiti are chronically hungry. Due to the lack of food, Haitians are forced to drink more water, in order to try to gain nutrients and suppress hunger. In fact, one in four Haitians have limited dietary substance on a daily basis. The average income for a Haitian family in 2013 was around two dollars a day, which is not adequate income for any type of substantial food intake. ("Haiti Statistics") Children are dying every day due to this lack of food; specifically in the form of malnutrition. Children can be so desperate for nourishment that they will eat nearly anything to satiate their hunger, even mud pies. These mud pies are a mix of mud, sugar, oil, and water, set outside to bake, and sold for affordable prices. The only appeal of the pies is their ability to sit in the stomach and calm its ferocious growls. And while the pies may be an immediate fix, they are not a long term solution. Some speculate that the mud provides calcium and is good for pregnant women by helping the fetus fight off diseases; this of course is a myth. The dirt in Haiti is full of deadly parasites and toxins. An example would be parasite eggs causing worms to grow inside the body. Also, a person cannot survive on the pies alone; eating the cakes will also eventually lead to malnutrition. Moreover, mud pies are a quick fix for the hungry Haitian, however, the health risks for prolonged consumption are too great and cannot promote any quality of living. The hunger crisis is best summarized with the following: "Some mothers choose what their children will eat. Others chose which children will eat and which will die" (Blake).

Although many children are starving, Haitian families tend to have approximately 4.6 children (“World Bank”). Naturally, each family hopes to feed and educate every child, but the reality is they may educate none and many will die before the age of 5. In addition to the chronic hunger, education is at a critical shortage. It is expensive, can be difficult to get to, and usually, a mere afterthought when you’re starving. Children are pulled out of school because their families can’t afford food, let alone school fees and uniforms. Although there are many families in large cities, others are still living in rural areas. For a great number of children, school may be at least two miles away. Even when they are in school, hunger obstructs the ability to learn. Children cannot concentrate in school if they are constantly hungry. Teachers have to make a special effort to keep the children’s focus on learning. “I use jokes to try to stimulate my students, to wake them up,” said Smirnoff Eugene, 25, a Port-au-Prince teacher. Another correlation to poor education lies within the parents. To magnify the problem, literacy rates for adult Haitians is fifty percent (“The Education System in Haiti”). While some parents see the value of education, many illiterate parents cannot make the connection between cyclical poverty and hunger to the need for education. If this cycle continues, Haitians will not be able to learn enough to clean their water, provide food for themselves and/or family members, and ultimately, will never break the cycle of disease, famine and hunger in their country.

After the earthquake, Haitians scrounged for food and anything that could help them survive. Hospitals were makeshift due to the collapse of buildings in the earthquake. Hospitals, even today, do not receive the help and materials that they need. There are patients with diseases such as AIDS, tuberculosis, and diarrhea. The hospitals do not have enough room or supplies for these problems, which causes many unsanitary and uncomfortable situations. In 2007, there were 1.3 hospital beds for every 1000 people (“Central”). Haitian patients die from diseases that are only a nuisance to American citizens: diarrhea, flu and other communicable diseases. Water that is not clean can lead to diseases such as cholera, which has caused over 7,018 deaths and 523,904 hospitalizations. (Water Crisis) Fifty-four percent of Haitians get water from sources that are not sanitized. Ninety-six percent of Haitians in rural areas must leave their homes to get water (“Water Crisis”). Diarrhea can also be caused by water that is unclean. This kills one in nine children before the age of five (“Water Crisis”). Due to the fact that the water has not been sanitized, bacteria can grow, specifically: E. coli. This causes diarrhea in Haitian children, which leads to dehydration; without sanitation practices, Haitians will continue to die from unnecessary diseases.

No city in Haiti has a functioning sewage system (Water and Sanitation). This means that human waste is going into the street and wherever the people can find somewhere to defecate. However, if Haitians were able to implement water sanitation systems, they would be able to achieve long term recovery and the hope of independence. Water sanitation affects many other factors related to food security. The improvement of water sanitation has the ability to impact health, farming, malnutrition, education, and government. Haitians cannot focus on these factors unless they first have clean water to drink.

One non-governmental organization (NGO) that works in Haiti is called Deep Springs International. Deep Springs International has been recognized by WHO, UNICEF, and Haiti’s Ministry of Water Sanitation as an NGO with a focus on water sanitation. In 2010 alone, this group had trained forty-five technicians and switched 9,098 families from dirty water to Gayden Dlo. “Gayden Dlo” (“water guardian” in Haitian Creole) is a liquid chlorine used to sanitize water. For \$1.25, Haitians can have clean drinking water for two months; this amounts to approximately two cents per day. Even though it is with the help of an NGO, the program allows the product to be made by Haitians for themselves. The Haitians assemble, manufacture, and sell the product. This opens up job opportunities for the Haitian people, as well as giving them clean water. To monitor the health of those who drink the newly chlorinated water, technicians visit each family on a regular basis and conduct tests to check the chlorine. Supervisors then randomly select families to check up on. This ensures that the technicians are thoroughly doing their job. “Tests have proven that the system is at least 80% effective at reducing exposure to water-borne diseases” (“Products”).

Zach Cain, who volunteered with a group to help chlorinate water in Haiti, says that although the chlorine does not taste very good, it is a reliable source of sanitization. It sanitizes the water enough to make it drinkable. He says that chlorine is a good chemical to use because one cannot overdose on it. The body will throw it up before that happens. It is also a cheap fix. This is a necessity because Haiti cannot afford to install expensive equipment. Cain says that a better, more permanent, solution would be to build a well. Although this is true, the cost of the buckets with chlorine is much more manageable. In rural areas, very few people would be using these wells so it does not make sense to build them at this time. For now, the buckets with chlorine are the necessary solution (Cain).

Another organization, Water Missions International, has a project similar to Deep Springs International in that they use chlorine to sanitize water in 500 gallon tanks. While this seems good in theory, transporting the gigantic tanks proves to be a much more daunting task as Haiti lacks infrastructure to and from most of its communities. In the future, the bucket project could be scaled up where they use a larger container, such as a barrel or the 500 gallon tanks however; it is not cost effective, people friendly nor is transportation of these heavy water containers easily remedied. Water Missions International also runs into trouble with the Haitian government as requirements to get items into Haiti require a great deal of paperwork. Thus, at this point in time, buckets are much more easily carried, distributed and effective.

Another issue that may arise with chlorinated water is the taste. Initially the taste of the water is not ideal, but over time, the Haitians have started to acquire the taste for the treated water. And, according to the Charleston City Paper, few things are more reassuring than the bitter taste of the chlorinated water. The stronger it tastes, the more that they are reassured that it is clean. If the Haitians realize that this water can help to keep them healthy, then they should start to drink it. Once they get used to the taste, all that they want will be the chlorinated water. (Curry).

With more households using Gayden Dlo, there will become less of a need for funds from a sponsor. If Gayden Dlo becomes popular enough, Haiti might be able to sustain clean water. This solution seems to be successful thus far and could solve many problems for Haiti. Haitian communities can utilize this system of chlorinating their water, then open more places to manufacture the materials necessary to produce the clean water. Families can get involved by working in a factory in Haiti to produce these chlorine water sanitizers. The government can then allow non-profit organizations like this until they are no longer needed. Once hunger and water sanitation improve, the government can reorganize itself. The citizens of Haiti cannot fix the problems with their corrupt government until hunger, malnutrition, disease, and water sanitation are not issues anymore. Organizations can help by changing the way that they are trying to help. Although sending food is a good and, at present, necessary thing to do, these groups can change how they distribute the food or find new ways to sanitize water. Organizations should look to the future of Haiti and see what they can do that will help Haiti gain independence. .

The government could put Gayden Dlo into the Haitian National water supply. The government also needs to get the word out about water sanitation and Gayden Dlo. Haitians need to be taught about diseases such as cholera and why it is important to have clean water. As of right now, Haiti has no policies or plans to make clean water widespread. Technology is really difficult to spread. For starters, the government could begin by giving out more buckets of chlorine. Cleaning the sewage out of the streets and finding a way to keep it out of the water supply is another way to help. The government needs to find a way to generate sanitary water, but as it is, the government is too corrupt to do things for the people (of Haiti).

Deep Springs International could work to make Gayden Dlo more affordable for the Haitians. Although it is very cheap already, not all Haitians have enough money to purchase it. Working with the Haitian government to get these buckets out could improve the situation. Instead of many small groups of people

working to help Haiti, these NGO's could come together with their shared ideas. With more people, more work can get done.

Governmental corruption was also punctuated in the aftermath of the earthquake. Haitian citizens learned that the government was withholding food and other supplies. A mayor in a town was said to be keeping food and withholding it from the locals. This caused many protests and riots in Haiti (Van Auken). As proof of the government corruption in Haiti, the fact has recently been released that the Haitian President is spending ninety-five million dollars to rebuild the military; while that may sound helpful, it is wreaking havoc on the Haitian people as the money is not being used to help those who are hungry, who lack clean water, and/or those who need infrastructure to transport goods. The country does not have a working police force, but the military will not be used to solve the problems inside the country; it will be used to prevent attack from other countries. This is illogical; Haiti does not have resources that make it worthwhile for other countries to attack. Reinstating the military is a luxury, especially until immediate necessities like food and sanitation have been guaranteed to all Haitians.

Kids against Hunger (KAH), a non-governmental organization (NGO) that sends packages of food to Haiti, have had problems with the government as well. They are being charged rent by the government for their food containers, but the food is not being passed out to the people who need it because the government can make money from the rent. However, NGO's such as Kids Against Hunger are crucial to bring Haitians to a place where they can access/generate clean water, make food and educate themselves without the help of others. According to Anne Nesbitt, a KAH volunteer, one can see the children's bloated bellies and yellow tint to skin that show malnourishment. KAH makes packages that contain the following: crushed soy, a blend of six dehydrated vegetables, chicken- flavored mineral powder, white rice, and all essential amino acids. The formula for these meals was determined by food scientists to have the maximum nutritional value. One pound of KAH soy has the protein value of three pounds of red meat. The packets are produced not only to feed a hungry child, but to also make that child healthier. These food packets have a shelf- life of up to three years. The packets are made in moisture-proof and odor-proof material. The average cost of a KAH meal is approximately twenty-three cents ("Kids"). KAH will collect donations and volunteers in order to assemble the food packets.

If there were more organizations like KAH to help feed Haitians, the hope is that Haitians would then be able to focus on education to eventually establish independence. They would have the wherewithal to educate themselves to grow their own food and clean their own water. However, Haiti still has great reliance on foreign aid. Although foreign aid very helpful in feeding countries like Haiti, this help comes with a price tag. Before poverty struck, Haiti was a main producer of rice. With the collapse of the Haitian government in 1986, Haiti had to open its markets to foreign rice. From there, more and more markets were open and Haiti no longer had to rely on their resources, causing the agricultural industry to collapse. To date, Haitians import the majority of their rice as they are not producing much of their own food. Because of this, they will rely on other countries until change occurs, and they start producing their own food again. With the sanitation of water, rice production can start again and Haiti's economy can grow.

To date, Haiti relies on foreign aid to accommodate for its food crisis. While foreign aid is operational and necessary, over time it may cause further harm to Haiti's overall being. Haitians will continue to be hungry and continue to experience unsustainable agriculture and water contamination. To fix these problems, a long-term solution would be to improve water sanitation in Haiti. This will not only provide immediate relief, but will also give Haiti the ability to provide a safe source of water for drinking and agriculture in the future.

The situation in Haiti is very severe. If Haitians cannot grow their own food and rely on themselves, their agricultural production will never be sustainable. Haiti will depend on foreign aid to take care of them forever. They have already become dependent on help from other countries, and the situation is not

getting any better. Haitians are moving to urban areas instead of staying in rural places. This is because they cannot find work and are all hoping to be able to find a job in the city. This is a problem because cities are becoming crowded and hugely over-populated.

Without water, crops cannot be grown. No crop means no food. No food means starvation. Starvation leads to malnutrition, and without proper care, malnutrition can lead to death. MNSBC says that many children are suffering from malnutrition, "their stomachs swollen, and hair faded by pigmentation loss. . ." ("Aid workers"). Many of these children were being placed in makeshift hospital beds that were being set up wherever possible. If Haitians do not have clean sustainable water, then there will be fewer crops grown in Haiti. Water is key for growing crops. Farmers cannot focus on farming if they do not have water.

Haiti cannot continue to wait for food from other countries; if Haitians want to rise out of poverty and hunger. Due to the current food crisis, foreign aid is necessary to alleviate hunger, but in the long run, foreign aid cannot solve the problems of hunger, water contamination, and lack of sustainable agriculture.

Works Cited

"Aid workers: Hungry kids dying in Haiti." 20 Nov. 2008. [Haiti on msnbc.com](http://Haiti.on.msnbc.com). Web. 24 Jan 2012.

Baptiste, Natalie. "Harkening Back to Dark Days in Haiti." Inter Press Service. 12 March 2014. Web. 13 March. 2014.

Blake, John. "As children starve, world struggles for solution." 17 Nov. 2008. [CNN U.S.](http://CNN.U.S) Web. 26 Jan 2012.

Cain, Zach. "Re: Water Sanitation Project." Message to the author. 3 March 2014. E-mail.

Carroll, Rory. "Haiti: Mud Cakes Become Staple Diet as Cost of Food Soars Beyond a Family's Reach." *Global Development*. The Guardian, 28 July 2008. Web. 8 March 2014.

"Central America and Caribbean: Haiti." *Central Intelligence Agency*. The World Factbook, 5 Feb 2013 Web. 2 March 2013.

Curry, Joshua. "Charleston-based Water Missions International fights cholera and corruption in Haiti." Charleston City Paper, 2014. Web. 25 August 2014.

Daniel, Trenton. "Fighting Hunger In Rural Haiti." 25 May 2011. Huff Post Impact. Web. 24 Jan 2012.

"The Education System in Haiti." *Rubicon Education Foundation*. Rubicon Education Foundation, 2013. Web. 1 March 2013.

"Haiti." *World Report 2013*. Human Rights Watch, 2013. Web. 8 March 2014.

"Haiti Statistics." *Helping Haitians Change Haiti*. Haiti Partners, 2013. Web. 20 March 2014.

"Kids Against Hunger." 2011. Web. 15 Feb 2012.

Nesbitt, Anne. "RE: Unsung hero project." Email to Emilie Eros, Betsy Hobbs, and Payton Hiday 19 Jan 2012.

"Poor Haitians Resort to Eating Dirt." *National Geographic News*. National Geographic, 28 October 2010. Web. 8 March 2014.

"Products." n.d. Deep springs International. Web. 2 March 2013.

Ritter, Michael. "Deep Springs International Work With St Tom's Haiti Ministry, Baudin, Haiti". 23 February 2014. Power Point.

"Water and Sanitation." Office of the Special Envoy For Haiti. n.d. n.p. Web. 2 March 2013.

"Water Crisis in Haiti." n.d. Deep Springs International. Web. 2 March 2013.

"Water Quality." *UN Water*. UN Water, 2011. Web. 2 March 2012.

Van Auken, Bill. "Haiti: hunger sparks growing protests." 9 Feb. 2010. [WorldSocialist Web Site](#). 2 March 2013.