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The Improvement of Increasing Liberia's Citizens Access to Clean Water and Sanitation

Liberia, a nation located in Western Africa, is one of the poorest countries in the world. As of 2014, 54.1 percent¹of the population lives below poverty. One may ask, what has contributed to the high percentage of population struggling to obtain daily necessities. Due to two turbulent civil wars, Liberia has been left in a state of disarray. The second civil war ended in 2003, but the impact it has left on its citizens still shows today. One of the main issues that Liberians are faced with is a lack of clean water and proper sanitation. Only one in four Liberians have access to clean water and latrines. One in five deaths in the country are blamed on water and sanitation.² Also, other bordering countries such as Guinea and Sierra Leone have very limited access to clean water and sanitation leaving this Sub-Saharan region very problematic.

An estimated 250,000 people were killed in Liberia's civil war and thousands more fled the country to safety.³ Liberia's role in a rebellion with bordering country Sierra Leone also played a part in the country's turbulent ways. The difficulties in the country were combined March 1991 when conflicts of Liberia bled over into Sierra Leone. Sierra Leone's leader, Joseph Saidu Momoh, took quick action and swiftly deployed troops to the border region to repel the invasion of Liberian rebels known as the National Patriotic Front of Liberia (NPFL), led by Charles Taylor.⁴ Sierra Leone's army fell up against an attack from not only the NPFL but also from the Revolutionary United Front (RUF), led by former Sierra Leone army corporal Foday Sankoh, who was conspiring with the Liberian rebels. The attacks were the beginning of what would leave millions of innocent civilians living in poverty without clean water and sanitation.⁵

Everyday millions of people of all ages, colors, and backgrounds who reside in Liberia face the tragedy of not knowing where their next meal will come from. The country has always had a higher rate of poverty and relied heavily on other countries for aid and support like the United States and Great Britain. Classified as a least developed, low income, food deficit country, it ranks 177 out of 188 countries in the 2015 Human Development Index. According to the World Food Programme (WFP), "one-fourth of Liberian families, food accounts for more than 65 percent of their total expenditures. This is a major chunk of money and leaves little to no room for other essential items like shelter, clothing, and healthcare.

1"The World Factbook." Central Intelligence Agency. https://www.cia.gov/library/publications/resources/the-world-factbook/geos/li.html 2"UNICEF Data: Liberia." UNICEF. https://data.unicef.org/country/lbr/ 3"Liberia Country Profile." BBC News. https://www.bbc.com/news/world-africa-13729504 4"Liberia - First Civil War - 1989-1996." Global Security. https://www.globalsecurity.org/military/world/war/liberia-1989.htm 5"Sierra Leone Civil War." Brittanica. https://www.britannica.com/place/Sierra-Leone/Civil-war 6"Liberia profile - Timeline." BBC News. https://www.bbc.com/news/world-africa-13732188 7"Liberia." World Food Programme. http://www1.wfp.org/countries/liberia

"Some 18 percent of households were found to be using emergency coping strategies (mostly begging) to meet their food needs." WFP also reports 83.8 percent of the population live on less than US\$1.25 a day. Generally, an average of five people are in a family. Their diets mainly consist of fish, cassava, sweet potatoes, peppers, rice, and palm oil. Many obtain this food by having personal gardens at home and cook the food over open fires outside.

The 14 year civil war had also created barriers that affected employment rates. Unemployment rates in Liberia reached an all time high of 15.90 percent in 1983 and a record low of 3.60 percent in 2014. While the war impacted the downfall of the economy another factor known as Ebola contributed as well. The 2014-2015 Ebola outbreak caused economic growth for 2014 fell from a projected 5.9 percent to between 0.7 and 0.9 percent and the cumulative loss of output was equivalent to 7.7 percent of the gross domestic product. Industries like agriculture and the mining and investment sector were heavily impacted during the outbreak. According to the Food and Agriculture Organization (FAO), agriculture accounts for 39 percent of Liberia's economy. Interference from the outbreak resulted in a decrease of yields for staple crops like cassava. Prices for cassava in some places more than doubled (increased by 150 percent). The high demand and high prices left already food insecure families suffering with little to no food.

Families tyipcally have no access to health care because of the health care delivery system still being in emergency phase. More than 75 percent of the population has no access to referral to care services leaving many easily curable diseases untreated taking the lives of many. ¹² For example, over 700 children under the age of five die from diarrhea a year caused by dirty water and unsanitary toilets. ¹³ Between the ages of 15-24 males hold a literacy rate of approximately 63.5 percent with females holding a percentage of 37.2 percent. ¹⁴ This reflects the trend of more girls staying home and working help to provide for the family while sending the boy of to school. About 55 percent of the schools in the country don't have access to water supply, which does not provide a big incentive for parents to send their children to school or children having the desire to go. But the rest of society still lags further behind with 82 percent of population not having handwashing facilities and 43 percent with no toilets. ¹⁵

A lot of refugees are living in even worse conditions struggling to live in the slums of Monrovia. Some reports released by international organizations indicated that Monrovia ranked as the poorest city in the

8"What the 10 Poorest Countries are Eating." The Borgen Project. https://borgenproject.org/10-poorest-countries-eating/

9"Liberia Unemployment Rate." Trading Economics. https://tradingeconomics.com/liberia/unemployment-rate

10"Liberia." World Food Programme. http://www1.wfp.org/countries/liberia

11"DUAL CHALLENGES: HUMAN SUFFERING AND THE ECONOMIC TOLL." Brookings.

https://www.brookings.edu/blog/africa-in-focus/2014/10/01/understanding-the-economic-effects-of-the-2014-ebola-outbreak-in-west-africa/

12"HEALTH SECTOR NEEDS ASSESSMENT." World Health Organization.

http://www.who.int/hac/donorinfo/cap/Liberia compendium Jan06.pdf

13"Liberia." WaterAid. https://www.wateraid.org/where-we-work/liberia

14"World Factbook", see in previous footnotes

15"World Factbook", see in previous footnotes

world in 2015. 16 West Point, Monrovia's densely populated slum community, is considered one of the worst slums in Liberia according to the Liberian government. The residents of this slum, having one "common desire" to end their daily struggle with severe poverty, seems like a fantasy to them. The majority of people living in West Point, "live in a shack along one of the labyrinthine back alleys where houses are packed so close that residents must squeeze through shoulder-wide paths choked by rotting fish and sewage."17 Yet Mother Nature is responsible for creating the biggest worry to tenants, the Atlantic Ocean. "Old sandbags and tires have not stopped the problem," with the Atlantic Ocean constantly lapping at their homes regularly sliding houses into the sea. 18 "Marie Samulkai, 48, a housing volunteer from West Point, built a large home for her family of 11 in the neighborhood in 2008, making a living by selling groceries and alcohol from nearby shacks. In 2014 it (the house and shacks) all went (swept away by the sea at night)."¹⁹ Marie's story is just one of the thousands of people who experience this. The citizens living in the outskirts of the city struggle with having little to no access to markets as a result of inadequate roads. This pulls people into the city in hopes of basic necessities. Yet these necessities are far from plentiful. With 75,000 people living in Westpoint, 20 electricity and clean water resources are scarce and at best unreliable.²¹ Due to the flooding that occurs diseases are rampant throughout these slums. Also, improper disposal of waste and open defecation contribute to the safety hazards in the community. The Risk Assessment Department at the National Disaster Management Agency report "stockpile of waste and open deposits of defecation are potential breeding grounds for mosquitoes, which could lead to the outbreak of biological hazards including cholera, malaria and diarrhea."²²

Liberia's improved drinking water source is a percentage of 75.6 percent of its total population. Guinea's improved drinking water source is a total of 76.8%, leaving Sierra Leone with the least amount of improvement with 62.6 percent of drinking water source improving. While drinking water sources still have plenty room to improve, sanitation facilities access are at an all time low. Liberia has only improved sanitation facilities for 16.9 percent of the population. In Guinea there has only been 20.1 percent improved and 13.3 percent in Sierra Leone that has been refined for their citizens.²³ Clean water and sanitation works hand in hand. Without a sufficient amount of sanitation facilities, citizens will have no choice but to continue to go outside. This causes waste to seep through the soil and pollute the groundwater making it unsafe to drink.

16"Liberia: Monrovia Is Among World's Poorest Cities." All Africa. https://allafrica.com/stories/201503171735.html
17" In Liberian slum, residents demand change from next president". Reuters. https://www.reuters.com/article/us-liberia-election/in-liberian-slum-residents-demand-change-from-next-president-idUSKBN1CS11Y
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19"As High Seas Threaten Liberian Slum, Residents Await Promised Homes." VoaNews. https://www.voanews.com/a/as-high-seas-threaten-liberian-slum-residents-await-promised-homes/4508594.html

20"Liberia: "West Point is a pending disaster" – Disaster Agency Alarms." Front Page Africa. http://frontpageafricaonline.com/news/2016news/liberia-west-point-is-a-pending-disaster-disaster-agency-alarms/

21"The Poorest City in the World." The Borgen Project. https://borgenproject.org/poorest-city-world/22"Liberia: "West Point is a pending disaster" – Disaster Agency Alarms." see in previous footnotes 23World Factbook, see in previous footnotes

Due to Liberia not being able to get help from another country around them, the United States and other advanced countries agree to provide aid. The country of Liberia began with a group of people known as the American Colonization Society (ACS) who wanted a solution to deal with the growing number of freed black people. After securing a strip of land, the U.S. Government provided Liberia some financial aid guaranteeing that eventually the country would move toward self-sufficiency. ²⁴ Yet, Liberia is still the United States largest recipient of financial aid with still at least 50 percent of its population in extreme poverty. While aid helps in some ways, the United States administering the aid sloppily, lacking specific goals, and not tracking the progress made in targeted areas continues the cycle of the aid dependent Liberian economy. This leads into the first proposed solution of making sure the aid given is used properly.

One solution to providing more clean water and sanitation to Liberians is setting specific checkpoints that they are required to meet upon receiving aid from the United States and other countries. Better administration of the funds and ways to track progress will assure that the money is not ending up in the hands of corrupt government officials. Focusing on problem areas and pinpointing what is causing the problem will allow the problem to be fixed to where aid is not a need in that exact sector and can go somewhere else. Liberia should be responsible for the implementation of checkpoints that track where the money is going and how much progress was made. This will open up employment opportunities and put the responsibility in the hands of the people keeping officials in check. Since electricity is limited, the United States should supply them technology to record data of the before, during, and after of funded projects. A way to encourage Liberians and government officials to use these checkpoints is basing the amount of aid given by the results and thoroughness of data recorded.

Another solution that will improve the percentage of access to clean water and sanitation is to continue to put the country's newly restored hydro-power plant to more use. This power plant, known as Mount Coffee, was destroyed in the first Liberian civil war and is now operational. Now that the plant, has been restored 15,000 new customers have been connected to the grid. According to the state power corporation, they hope to connect 100,000 others by the end of the year. By connecting more citizens to the power grid this will allow them the opportunity to use electricity to boil their water ridding it of impurities. In addition, it is sad by the plant directors that the reservoir water when sustainably managed, and balanced against the Mt. Coffee energy requirements, could provide other local water supply benefits. However, about 40 percent of power that's generated is siphoned illegally, so this solution is not as easy as it seems. Ensuring that the power supply is as affordable as possible for all 4 million Liberians will give them an incentive to connect to the grid rather than illegally acquire power. Mount Coffee will also open up job opportunities for the surrounding community and people of Liberia overall. Being that Mount Coffee has had much success with connecting Liberians to the grid, it may inspire other hydro-power plants to be built around the country. The United States can assist with this process by modeling similar techniques they have used and other foreign countries they provide aid for. Leading the world in hydroelectric dams

24"Founding of Liberia,1847." Office of the Historian.https://history.state.gov/milestones/1830-1860/liberia 25"Project Benefits." Mt. Coffee HydroPower Plant Rehabilitation: Project Implementation Unit(PIU) http://mtcoffeeliberia.com/?page_id=33

26 Liberia restores hydro-power plant renewing hope for consumers." Africa News. http://www.africanews.com/2017/03/15/liberia-restores-hydro-power-plant-renewing-hope-for-consumers//

the United States mostly due to its advanced level of technology and plentiful supply of rivers²⁷ the country is more than qualified to lend a helping hand to Liberia.

The progress that has been made in Liberia proves that having access to clean water is not impossible to achieve with hard work and dedication. The citizens of Liberia and government officials have to be willing to put past differences aside and work collectively to rebuild the country's economy. It has been said by the current president, George Weah, that many programs are under way to address the shortage of electricity and running water. Hopefully, with the restoration of the hydro-power plant, more people will have access to clean water and sanitation and it will be affordable for the majority. The country will also be less reliable on other countries for the country to function smoothly. Taking the initative to complete these steps gives all the citizens of Liberia an opportunity to drink clean water and use proper waste facilities improving the quality of their daily lives.

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