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Ghana: Factor 9 - Water and Sanitation

### **Ghana: Clean water practices will help a population prosper socially and economically**

Did you know that Ghana is one of the first West African countries located on the Gulf of New Guinea? And it gained its independence through notions of oppression and despotism of the British government by the people of Ghana. Such action was a reaffirmation about the progressive capabilities of Ghana. Revamping, which is made possible by the people not the government, seems to be much more effective in establishing foundational social norms. For example, the United States founding fathers: John Adams, Benjamin Franklin, Alexander Hamilton, John Jay, Thomas Jefferson, James Madison, and George Washington. Although, most of them held powerful governmental positions, they did set a foundation for the American people to build upon and follow to this very day. But still, for the sake of the argument people are obviously the majority and are therefore in power, plus have the influence to make alterations to both government and environmental problems. With that being said, the people of Ghana have the power to turn their water and sanitation dilemma into a solution that will allow others to have access to clean and affordable water plus enable Ghanaian communities to prosper exponentially.

Ghana's total population is approximately twenty-seven million and is expected to continue. However, this number will dramatically decrease if nothing is done about the existing water crisis. (The World Factbook). As declared in an interview by Diana Noi (a water board program member of Ghana) "The major problem we face is potable water. Fresh water comes from the Densu River [which supplies water to Ghana's capital city Accra], but people wash and defecate and sometimes die in the river." (Sanitation and Hygiene). That is true, being that about three million people in the continent of Africa rely on rivers like the Densu, lakes and ponds as a daily source for making food products as well as consumption. But, drinking a contaminated water source will lead to dozens of bacterial diseases and symptoms such as: Diarrhea, vomiting, dehydration, fatigue, cramps, headaches and nausea. All symptoms that result in rapid fluid loss from the body due to consuming water from a bacteria and parasite infested body of water. Just, imagine having to live in a village where not just drinking but, utilizing disease ridden water for cooking and cleaning (common everyday things) is the norm. Not because it is sanitary or tasteful but, because it is the only thing available. These people are just like you and me (human) they're not immune to all the toxins in their environment. But, as a people they try to survive the best way they know how and that is taking advantage of what is given to them. That being the many rivers and lakes surrounding them.

Furthermore, sanitation and hygiene are crucial to health, survival, and development of people of all ages. To sum up, most countries have a hard time in providing something as basic as sanitation for their people, which leaves many at risk for water, sanitation and hygiene related diseases. Throughout the world, an approximately 2.5 billion or thirty percent of people in the world do not have the basic sanitation. (Centers for Disease Control and Prevention). To define, sanitation is specified as having access to facilities for the safe disposal of human waste, in addition to having the ability to maintain hygienic conditions, through voluntary services such as picking up garbage or trash, waste management, and wastewater treatment and disposal. And we wonder why Africa is a struggling continent because it is

going through an unfathomable number of problems like: corruption, war, poverty and disease. The symptoms that the people of Ghana cannot cure unless they seek professional medical assistance. Assistance that is given to half of the population focused majorly in urban cities like Accra and Kumasi, but makes it more difficult for people in the rural areas of Ghana to find medical assistance due to the unsanitary condition of their environment. So, just picture having to drive miles just to get the proper medical attention. That's outrageous right? This cannot be stressed enough, that by increasing the availability of water and educating the Ghanaian people on proper sanitation will not only allow for diseases to be prevented but also economic growth and social prosperity. You may be asking, *how on earth could this plan work!*? By simply having *access* to clean filtered drinking water, Ghanaians will be allowed to maintain body functions such as digestion and absorption of key nutrients.

Now, the majority of people in the United States may be asking, *why should I care about the health of another country's people? I have problems of my own to take care of.* For starters, they are people like you and I who have families and others that care about their overall health. In addition, Ghana is a major exporter of gold, cocoa beans and timber products. So, not caring enough about the people who produce these major exports will be fatal not only to your economy, but the global economy because Ghana produces twelve-billion dollars' worth of exports. Which is economically an asset not a liability. Envision if all people of Ghana were to become dreadfully sick from their water and unable to satisfy consumer needs and unable to produce exports. Undoubtedly, this would affect the global economy in a tremendous way. Being that there were to be a need for gold in order for international jewelry stores to meet their consumers' demands and not go out of business or what if there were to be a switch from today's monetary system in the (which is banking) to the Gold standard. Wouldn't Ghana be considered an economic asset. So, it will both morally and economically wrong to ignore such a problematic situation.

Ghana's GDP was about \$116 billion and was projected to grow 8.7 percent every year (International Monetary Fund). That much money and growth is unimaginably unheard of and, as of 2011, Ghana was considered to be the "world's leader in economic growth." Ghana: Vision 2020, Ghana plans to reach its goals of highly accelerated economic growth and improved quality of life for all its citizens, by reducing poverty through private investment, rapid and aggressive industrialization, and direct and aggressive poverty-alleviation efforts. Ghana's project: The Vision 2020, allows for them to see their potential of political and economic stability growth in the near future. These implementation of Ghana: Vision 2020 policy agenda on private sector growth; and aggressive public spending on social services, infrastructure, and industrialization. Its projection as stated by the National Development Planning Commission Ghana's goals of reaching high-income economy status and newly industrialized country status will be easily realized between 2020 and 2039. (National Development Planning Commission).

The top exports of Ghana are Gold (\$4.33B), Cocoa Beans (\$1.98B), Crude Petroleum (\$1.7B), Cocoa Paste (\$369M) and Cocoa Butter (\$239M), using the 1992 revision of the HS (Harmonized System) classification. Its top imports are Refined Petroleum (\$938M), Gold (\$303M), Cars (\$282M), Rice (\$270M) and Packaged Medicaments (\$240M). The top export destinations of Ghana are India (\$3.21B), Switzerland (\$1.39B), China (\$1.06B), the Netherlands (\$669M) and France (\$607M). The top import origins are China (\$5.31B), the Netherlands (\$884M), the United States (\$848M), India (\$641M)

and France (\$515M). So adopting Ghana as a trading asset and revamping their economy with water and sanitation programs will undoubtedly allow for the U.S to prosper (OEC Ghana).

Moving on, most villages in Ghana have a tropical climate, plus lack clean drinkable water, hospital and sanitation. Ultimately, it would be in the United States best interest we have ties to Ghana to help fund and create kick-start programs that will allow the children, adults and elders to be educated about the dangers of drinking from polluted bodies of water. Programs like that will not only be beneficial to the people of Ghana, but also towards their community and environment. Majority of the people that live in outer city Ghana would have the access to safe water and sanitation. Over forty percent of people in Kumasi rely on public toilets, but there is only one toilet for every 1,000 people. And because of these unsanitary conditions WSUP also claims that, 19,000 Ghanaians die each year from diarrhea [alone] (Water and Sanitation for the Urban Poor (WSUP). According to UNICEF (Accra, Ghana) 4,000 Ghanaian children die each year from diarrhea, even more die from pneumonia, and about twenty-three percent of Ghanaian children suffer from stunting (chronic malnutrition linked to poor water and sanitation). Five million Ghanaians still use water from unsafe sources (UNICEF/ Ghana).

Now, if that didn't make your insides turn conceptualize having diarrhea, but you have the convenience of using a toilet everywhere you go. From gas stations to houses or public to private restrooms you always have someplace to relieve yourself. No disrespect, but please put yourself in the people of Ghana's shoes. Maybe then will you find yourself stuck between a rock and a hard place. Making a decision to relieve oneself in a body of water infested with parasites or in the middle of a busy street is demoralizing right? What if we develop programs that will help better and lay the groundwork for proper water sanitation so the Ghanaian people as a whole would not have to come face to face with that decision. Of course that is just a respectful suggestion.

For instance, with the help of local organizations like Ghana Water Company limited (GWCL) plus, Water and Sanitation for Urban Poor (WSUP) who have been indefinitely improving the hygiene of Ghana's low income areas in Accra and Kumasi since 2010, will speed up the process expeditiously and allow Ghana to thrive tremendously. In Ghana: WASUP has helped 68,761 people with improved water services, 418,055 people with improved sanitation services and 1,102,208 people with improved hygiene practices. WSUP reported accounts of Ghanaians who have openly discussed this feat for instance, "Sarah Otoo, a 66-year-old native doctor from Ofankor in Ga West, Ghana, had been using a pit latrine until October 2015, when she decided to acquire a more hygienic toilet." According to the same source, "Rev. Moses Kotei has lived in Ga West since 1996 and has seen the sanitation situation change in the past 20 years." Again, we need more organizations like these to be established and will openly sacrifice along with millions of Ghana's struggling citizens for this to work (Water and Sanitation for Urban Poor so far the WSUP).

News Ghana John Kofi Agyekum Kufuor is the ex-President of Ghana and pushed towards sanitation. And still after his presidency it has not been a push towards better quality relief stations. In addition, there needs to be programs established that involve giving back to the Ghanaian community with donations from allies (News Ghana). Such as the Clinton foundation which is a non-profit organization founded by the 42nd president of the United States to improve health create and increase opportunities for people of all ages and the Clinton Foundation currently operates programs to strengthen

health systems and local economies across Africa. Programs like this could benefit Ghana in the long run (Clinton Foundation).

Another way to spread good sanitation habits in Ghana is by sending groups of volunteers from around the world to help teach Ghanaians about hygiene then award them with volunteering medals. Which would make each volunteer feel in a sense needed in order to make our plan to come full circle. And after a certain amount of days they receive their medals. Although, it is costly to maintain support for volunteers being that they sometimes are not fully committed from the beginning to the end, they are indeed crucial in educating the people of Ghana on proper water sanitation. One more solution to Ghana's filthy water sanitation crisis can be resolved through lake filtration systems that cost around \$3,000 per lake. This method would need a colossal amount of money that could be given from donations, fundraisers, and philanthropy. Agreed, these solutions or methods are both time and economically consuming, but it is needed in order to point Ghana in a positive direction. Wouldn't you all agree?

Moving on, Doctor Girish Gaur, head of the Department of Molecular Diagnostics at Diagno Labs Private Limited interested me in his Experimental Biology paper he presented in 2017 because relating to water sanitation and nutrition he encouraged the idea relating to developing countries such as Ghana not having the access to medical facilities which makes them rely desperately on traditional medicine or local remedies oral passed down through generations in a tight knit community. Doctor Gaur had shown the effect of essential oils such as oregano in parasites like the *Cryptosporidium parvum* which is a parasitic disease of the mammalian intestinal tract is a microscopic parasite that causes the diarrheal disease cryptosporidiosis. Both the parasite and the disease are commonly known as "Crypto." Doctor Gaur figured out a way to cure parasitic infections by developing supplements that gradually improve nutrient intake in a given population. This population could be Ghana if they are educated about this experiment of Doctor Guar then there would be an increase of awareness in the Ghanaian community millions could be saved from the harmful effects of diarrhea on the body. Just think how valuable that type of data is and what it could do for the people of Ghana if given the right tools and supplies necessary for this to happen. Sadly, about 4,000 Ghanaian children die each year from diarrhea, even more die from pneumonia, and about 23 percent of Ghanaian children suffer from stunting (chronic malnutrition linked to poor water and sanitation) (Central Disease Control and Prevention (CDC)).

For this reason, five million Ghanaians still use water from unsafe proper water and sanitation hygiene can prevent many water borne diseases and illnesses. In fact, this could keep the streets, sewers, alleyways, lakes and rivers free from germs, feces, and transmittable diseases. When there is not a convenient restroom or latrine for someone to relieve themselves in where else would you suppose they go? Should it be the bush over by the bakery, the school gutter, that perfect pond over there people say has the best scenery or that sidewalk that nobody walks on because it is swarmed with disease carrying flies that hang around all of the defecation nearby. If there was no place convenient for you to relieve yourself where would you go? If I was in the same situation of course I would do what everybody else is doing because I am a product of my environment plus I'm a kid, I don't know any better. I would just be doing what the adults do. But, if the adults where educated on proper sanitation and good hygiene they would set a perfect example of good hygiene for the young to follow and maybe then would I be clean and free of diseases. Handwashing can reduce diarrhea and pneumonia by up to fifty percent, yet less than fifteen percent of Ghanaian households have handwashing facilities. Improved sanitation can reduce

diarrhea rates by thirty-six percent, but only fifteen percent of Ghanaians have access to improved sanitation (UNICEF / Ghana).

Now, hygiene is something as humans we use to protect ourselves from spreading or getting germs. It is something that keeps our bodies free from life threatening bacteria. Let me break it down. Human hands have a lot of germs. The total number of germs depends on the size of your hands. In other words, you are in constant danger of exposing yourself to germs from just touching anything with your hands. Now isn't that fascinating? Moving on, Hygiene refers to the comprehensive cleaning of and caring for your body. Maintaining good personal hygiene includes bathing, washing your hands, brushing your teeth and wearing clean clothing. It also includes making safe and healthy decisions when interacting with others. Implementing good personal hygiene practices has both health and social benefits. In many cultures around the globe, poor personal hygiene is considered offensive or a sign of illness. So, caring for your body regularly reduces body odor and overall improves personal appearance, at the same time improving others' perceptions of you. This is especially important in circumstances in which proper etiquette is expected or required, such as at work or school. Good hygiene also helps improve your own self-image granting extended longevity, greater personal and healthier professional relationships which in all helps both socially and mentally (LIVESTRONG Foundation).

On the other hand, we as humans talk about taking the good along with the bad which means to accept all flaws bits and pieces of something along with the good. So, why not spend money to send all of the volunteers doctors, scientist, educators to Ghana? Why not help fund and allow well known philanthropist from the United States like Bill Clinton (who has already taken the initiative to give a hand to African countries in need) spend time and money on medical supplies to help those in need? Why not give Ghana (a could be prosperous nation) millions of dollars of filtration systems that could be damaged beyond repair? Why not do anything at all? Because we (Americans) as people care about earth plus its various biomes and animals. We care about the success and helping others because it makes us feel not so bad on the inside. We are human after all. And as humans we can do marvelous things unexplainable by simple graphs and numbers. Assisting Ghana would be economically challenging, but think of all the good that will come of it. Economically Ghana will blossom into a major trading asset with all of its attention focused solely on developing the product and transferring it over seas and not water sanitation Ghana would be a leading exporter in gold and timber products. Socially all of these programs on sanitation would give both men and women confidence to building longer lasting relationships with themselves and each other. Overall, of course there is a few downfalls on the economic side but no plan is perfect and that's the truth.

Following up, my suggestion would be to implement a new campaign called the "Help Ghana Initiative" (HGI) that would be comprised of people all over the world to come together and help Ghanaians. The organization would be located at the source of Ghana's suffering which specified by specifically in Accra and Kumasi in order to target the complications and build up a foundation so they won't have to rely on help in the future. As of 2017, only fifteenpercent of Ghanaians have access to improved sanitation. That's a very small percentage. There is approximately 28,656,723 people currently living in Ghana (World meters / Ghana). So, fifteen percent of that would be 4,298,508 with access to water minus Ghana's total population (28,656,723) is 24,358,215 Ghanaians who are without an essential water source. That's a lot of people who don't have access to filtered water to clean with or brush their

teeth with, that is unfathomable! So, imagine starting a program that not only addresses the issue, but attack it head on as well.

So, the new campaign, Help Ghana Initiative (HGI) will be a government funded program with the involvement of the Global Health initiative (supported by the USAID). Foreign assistance “aims to maximize the sustainable health impact the U.S. achieves for every dollar invested (Foreign Assistance). Did you know that average person has a bowel movement 2 to 3 times a day, but eighty percent of Ghanaians considered by the GMP do not have a toilet? Well, we have the potential to reduce that number to zero The HGI will provide clean, portable, affordable and odorless toilets to every house in Ghana starting in Kumasi and Accra (Poorest parts of Ghana). The toilets come with a gallon of hand sanitizer dispenser and two rolls of toilet paper that is optionally replenishable upon monthly pay if necessary. The reason for the hand sanitizer is to, of course clean hands after using the toilet, but also embed in them that cleaning hands is a must and should always be done. Same for the toilet paper, it is to be served as a reminder to properly sanitize the gluteus maximus. In summary, both the toilet paper and hand sanitizer provide serves as both a mental note and a physical. Our program will be teaming up with the likes of P&G (owner of Charmin Ultra soft toilet tissues) and Purell (owner of the well-known hand sanitizer products) who could help provide us with the materials we need to satisfy an entire population. Our goal will be to spread awareness around the world. Hopefully, other nations would see the value of their people owning toilets and knowing when and where to wash their hands. The ultimate goal of HGI is to spread global awareness about the importance of water and sanitation.

Did you also know that due to the rapidly growing population, torrential rains and lack of improved sanitary facilities there was an emergence and spread of cholera, dysentery, diarrhea, Hepatitis A. and Typhoid? Are you (America) aware that if everyone in Africa had access to a toilet every half hour a child won't have to die of cholera in Africa? Pretty inconceivable to the average mind, but you would be right if you knew that the number is 48 child deaths every day! That's obviously a genocide of the new generation of youth who don't even know what they're dying from. And if left untreated at the source it will continue to grow and consume all of Africa until nothing is left, unless something is done about it. That's why HGI will focus on educating the youth about proper hygiene and the numerous diseases that could harm them if not treated at a local hospital.

Furthermore, 40 percent Kumasi rely on public toilets that they pay 50 pesos (USD \$2.81) every time to relieve themselves in a filthy, germ infested and crowded latrine. In addition to using unhygienic toilets the people of Ghana defecate in a black bag and dispose of it in the streets (this is called the Fly Toilet) But, with the installation of our mobile toilet system we will have Ghanaians thanking the United States for their support in educating the youth, providing goods and services, and overall promoting a clean conscious awareness of their environment like an older responsible brother would. Both Kumasi and Accra have limited space and a poorly inadequate infrastructure for running water. But, our HGI's mobile toilet does not require water, electricity or a hole to be dug for it to function. All is needed is a reliable plastic toilet bowl and chemicals at the bottom that takes the stench and the odor from the feces. HGI will have waste collectors to come by every month to replace the toilet and consult with the client about monthly pay of 50 pesos (USD \$2.81) which is definitely way cheaper than paying *every time* to use the public latrine. HGI will have a staff consisting of: Waste collectors, consultants, administrative, service associates. The Help Ghana Initiative core values will be: The customers are the primary focus of

our work, we take full responsibility for the safety of our employees and Ghanaians using our product, and finally we respect everyone including the customer's property.

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