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Uganda: Bringing Prosperity through Nourishment

Growing up with a dietitian for a mother, a healthy diet has always been a given for me. I eat three large meals a day, as well as countless snacks in-between, and my fridge is always stocked with nutrient-dense foods from around the world. Each and every day, I take for granted the fact that I have food at my fingertips whenever hunger arises. However, this easy access is both a blessing and a curse for many Americans. I have heard first hand from many authorities in the medical community about the crisis we are facing here in America. It is not a hunger crisis, but rather, an obesity crisis, caused by the junk-food we are putting into our bodies. This “malnutrition” is killing millions of Americans every year from diseases exacerbated by obesity, such as heart disease, diabetes, and cancer. Over twenty-three percent of the calories eaten by the average American is derived from the consumption of soft drinks, desserts, and other processed foods. While we indulge in frivolous amounts of caloric, nutrient barren “foods”, even though we have hundreds of healthy options available, over eight hundred and seventy million people around the globe are suffering from hunger, caused by malnourishment.

My life changed forever the day I met the “Ugandan Thunder” Christian choir group, which happened to be touring through Eastern Tennessee while I was visiting in the spring. Forty children from various orphanages in the cities of Kampala and Entebbe were chosen to come to America for nine months and sing to spread the good news of Jesus Christ. While they were performing, a woman milled through the audience, passing out brochures which explained the hunger crisis in Uganda. It broke my heart to see so many photographs of children who were suffering from a condition which is so easy to prevent, if only we would take action.

Uganda lies on the East African plateau, and contains much of the Nile basin, which is made up of many lakes, the largest of which, Lake Victoria, is the source of the Nile. Its climate is equatorial, and receives more rainfall (especially toward the southern border) than most African countries. Although Uganda is better off than many African countries, 37.7% of its people live on less than \$1.25 per day. Eighty percent of those living in rural areas depend on farming to supplement their income. The largest contributor to its agricultural inefficiency is that it suffers from the lack of modern equipment to farm its fertile land and yield the crop that it has the possibility of producing. It’s diverse, and largely lush landscape makes it a prime location for growing and harvesting crops. The average family in Uganda is made up of five people, 53% of which have both a mother and father in a monogamous relationship. The diet of the majority of Ugandans consists of plantains, starchy roots, such as cassava and sweet potatoes, as well as cereals like maize, millet, and sorghum, leafy greens and nuts. Because the availability of fresh produce is low compared to that of starches, most Ugandans lack the micro-nutrient rich foods their bodies need to properly nourish themselves.

The education system in Uganda is much different than that of America. Children are offered the first level of education, called nursery school, at age three, and are finished by the time they are six. From there, they go on to attend primary school with normal annual progression, generally taking seven years to complete. However, a staggering seventy-one percent of students drop out of primary school before finalization. For those who manage to stay in school through grade seven, a Primary Leaving Examination (PLE) is given, and must be passed by a sufficient mark before it is acceptable to move on to secondary school. This level of education consists of six years of advanced learning, which leads to many major national examinations. Because such a small amount of students were moving on to this level of

education prior to the turn of the century, the government abolished tuition fees in all public secondary schools in 2007. Only students who score twenty-eight points or higher on the final examination, which is known as the Uganda Advanced Certificate of Education, are allowed to be admitted into university and other advanced levels of learning.

Despite the national push to educate the nation's children, Uganda falls short in the medical field. The healthcare performance of Uganda is one of the worst in the world. In fact, it is ranked 186th out of 191 countries. Needless to say, the health and life expectancy of its people is incredibly low. Over one million people are living with HIV/AIDS, almost fifteen percent of the population's deaths are caused by malaria, and over sixty percent of children will die before the age of ten because of malnourishment. Most countries average about 1.7 physicians per 1,000 people. In Uganda, however, recently published health statistics indicate that there are less than 0.08 physicians per 1,000 people. This further hinders the health of the nation and makes suitable healthcare very difficult to afford.

With so few doctors and medical professionals, it is clear that the country is suffering. Eighty-two percent of the population is involved in agriculture, dominating the Ugandan economy. The FAO states that, "In 1996, 25 percent of all Ugandan farmers consumed all they produced. Another 70 percent sold less than 20 percent of their output, leaving only 5 percent who sold 20 percent or more of their production." Only one percent of all Ugandan farmers use fertilizers, a key substance in producing an abundant harvest. Without it, the soil is not nearly being used to its full potential, and desperately needed crops go to waste because of infestation, drought, or rot. AGRA recently concluded that, "Without the use of fertilizer and certified seed, the nation of Uganda is producing forty percent less than it is capable of." The size of an average farm in Uganda is 2.5 hectares, which is equal to about six acres of land. The main food crop grown by Ugandan farmers is bananas, accounting for over twenty-eight percent of total cropped area in 2010. Root crops, pulses, rice, cereals, and oil seeds also make up a large percentage of food grown by subsistence farmers. Cash crops, such as coffee beans, cotton, tea, and tobacco are exported by growers throughout the nation to bring in income. Cattle, goats, sheep, and poultry are the main livestock being raised currently in Uganda. In the 1970's and '80's, many cattle were lost due to disease and civil strife, but after receiving aid from Tanzania, Kuwait, and the United States, cattle farming was restored in Uganda. Agricultural practices used by farmers in this nation date back to their ancestors. Not only are they primitive, extremely labor intensive, and time consuming, but they are clearly not helping the agricultural sector in Uganda move forward.

It should go without saying that a major change is needed in Uganda as far as agriculture goes, and it is needed now. However, there are obstacles holding Uganda back that will be difficult to overcome before food security is guaranteed. The largest problem that Ugandan farmers face is the unpredictable weather and varying rainfall. While some regions receive almost flood-like amounts of precipitation, other areas remain barren year-round. Over three-hundred million Africans are without access to safe water. Many of which reside in Uganda. Another problem plaguing agricultural development is the lack of proper fertilizer and certified seed. Without these tools, farmers reap a meager harvest and lose much of it to disease. As gas and oil prices rise, filling tractors and other gas-guzzling machinery becomes almost impossible for these impoverished farmers. To make a living wage off such an expensive investment is very difficult for most farmers. While they are only paying for the seed, much of it does not produce crops, due to the lack of the nutrients it needs to grow, as well as undesirable weather conditions, so it is wasted. Over seventy percent of subsistence farmers need everything that they grow to feed their families, just to survive. Thus, actually losing money, and having none left over to invest in a better crop for the next year. Because many farmers end up poorer than they were before the harvest, buying nutrient-dense foods for their families, such as fruits, vegetables, legumes, and meats from other farmers is not an option. Instead, they are left to fend for themselves during the dry season and have no access to the foods needed to live a healthy life.

Nineteen percent of the Ugandan population is malnourished. That may seem small, but when you figure the numbers, it is staggering. In a nation of thirty-one million, 5,980,000 people go hungry every day. This is not just occasional hunger, either. Each and every morning these undernourished men, women, and children wake up with growling stomachs, yearning for food to sustain them. Malnourishment affects every aspect of daily life. When a person goes extended periods of time without food, brain function decreases and can even cause severe neurological problems, including impaired movement and memory loss, as well as loss of muscle mass and depletion of fat stores. For Ugandans living in poverty, hunger affects their ability to work, and without the productivity of their farming, other people go hungry as a result. Because of this cause-and-effect situation, the hunger crisis in Uganda is growing. If the citizens of Uganda had the tools and ability, as well as the willpower to improve, many lives could be saved every day. Not only that, but if enough food could be produced to be sold as exported goods, farmers would receive a payment for their crops, with the possibility of selling at a higher cost than in their own country.

It is my belief that the hunger crisis in Uganda cannot be solved simply by sending money in an envelope or through passive aid. As Americans who have been endowed with some of the most bountiful resources in the world, as well as a generation of people who care about our carbon footprint along with the well-being of those around the globe, I know that we can make a difference. Africa is the focus of countless groups of researchers, agronomists, biologists, environmentalists, and many more highly trained professionals. The answer to ending hunger lies in Norman Borlaug's "Green Revolution." If Ugandans are introduced to high-yielding, disease resistant seed, as well as modern agriculture production techniques, the sky is the limit for the citizens of this nation. By making fertilizer and simple tools available at low cost to Ugandan farmers through financial aid programs, the quantity of crops will increase, the cost to buy them will decrease, and crops may become more readily available to the poorest of the poor. Sweet potatoes, rice, and other legumes would be the highest yielding crops to invest in, and the most commonly eaten by the people of Uganda.

Already, projects like this are taking place. "Farm Africa", is an organization which is sharing the principles of self-sustaining agricultural with smallholders of rural African countries, such as Uganda, Kenya, Ethiopia, and Tanzania. This group "pioneers techniques that boost harvests, reduces poverty, sustain natural resources, and helps end Africa's need for aid." They "put world-class expertise into farmer's hands, making them productive, climate smart, and competitive." This gives them an advantage over uneducated farmers, but also allows them to share their knowledge with them to help them reap the best harvest possible. By using research and cutting-edge technology and techniques, farmers are given modern answers to ancient problems of farming in Africa.

Heifer International is another wonderful program that was designed to help alleviate, and ultimately end, world hunger, as well as the need for food aid from other nations, in third world countries. They have "established strategic partnerships with government, private sector institutions, and community cooperatives and will reach out to at least one-thousand families in community groups and associations." Not only is it their goal to improve education of agricultural processes, but their staff is also responsible for making the Ugandan people aware of new technology which may be a critical component in improving the development of energy and water saving farming methods.

If these programs were promoted by National Governments in first world countries, money could be donated to help research advanced ways to modernize farming in Africa, as well as to develop affordable state-of-the-art fertilizer and tools to help make food production easier, and more efficient. While passive

help is an option, knowledgeable members throughout the world could also become a part of the solution by either volunteering their time overseas, or by being hired by companies willing to put their products to use in hopes of a successful harvest.

By promoting these programs in small communities around the U.S., children will become aware of the hunger crisis, and the need to help those who are less fortunate than themselves, instilling in our youth the importance of service and compassion. Schools could participate in fundraisers, such as coin drives or car washes to raise money for this very important cause. Television stations would be able to hold telethons to collect donations to send to Uganda in order to alleviate the cost for subsistence farmers making first-time purchases of hybrid seeds. Instead of commercials designed to tug on peoples heartstrings, featuring adorable African children who are dying of starvation, convince TV stations to feature African farmers showcasing their bounty. Rather than asking people for ninety-nine cents per day to supplement food aid on these commercials, we should be asking for ninety-nine cents per day to help farmers buy seeds to grow multiple wheel barrows full of crops to feed a family for a prolonged period of time, providing them with vitamins, minerals, antioxidants, and phytonutrients to thrive, rather than just survive. By simply contributing to these organizations, or one with a similar mission, Uganda's farmers may be able to become self-sufficient in the near future. Their well-being is no less important than ours. The color of our skin, the religion that we practice, the language we speak, or the fact that we are thousands of miles away from them will make no difference at all to a child in Uganda, or anywhere for that matter, who receives food because of our efforts. We are all on this earth together, and it is our right to be able to enjoy the blessings that we have been given, but to share them with others who may not be as fortunate as we are as well. It is a human right to be fed, not a privilege.

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