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Guatemala, Factor 16: Education

Guatemala: Improving Education

Guatemala is a very small country in the Caribbean bordered by Mexico to the north, Belize to the south, Pacific Ocean to the west, and the Caribbean Sea to the east. Where a third of its population lives, the country is mountainous. The population of Guatemala is 17,790,768 (“Guatemala Population”). However, the country is quite small: 42,042 square miles. This disparity clearly results in high population density with an average of 423 people per square mile (“Guatemala Population”). Infant mortality is extremely high with 17.4 infant deaths per 1000 births. There are 22 deaths per 1000 people under the age of five in Guatemala due to unsanitary living conditions and malnutrition (“Guatemala Population”).

Guatemala was ruled by several regimes in the early stages of its independence, leading to an unstable economic time in the late 1950s (Griffith et. al). After such instability, guerilla warfare broke out in 1960 and sparked the beginning of the Guatemalan Civil War between the government and the left-focused, indigenous people. Near the end of the civil war in 1985, a democratic ruler won the election (Griffith et. al). The years of instability led to a desperate state of food insecurity because many people stopped growing crops to fight. Eventually, the war ended in 1996 with a Peace Agreement stating that all people have human rights and that social reforms would begin as promptly as possible (Griffith et. al). The debilitating, thirty-six year civil war led to an alarmingly slow comeback in politics and economics, leading to widespread poverty. The United Nations Sustainable Development Goal #1, Eliminating Poverty, is a struggle for Guatemala; 59.3% live in poverty (Project, “Current”). Among the impoverished, 23% are living in extreme poverty, meaning they live on less than \$2 dollars a day and do not have access to clean water or nutritional food (Project, “Current”). These people suffer such concomitant circumstances such as poor nutrition, indoor air pollution, and lack of access to proper sanitation. Many Guatemalans suffer from chronic malnutrition (“Guatemala,” *Health*). Forty-nine percent of children under the age of five will have stunted growth (“Guatemala,” *Health*). Guatemala is struggling to meet Sustainable Development Goal #2, which is to eliminate all forms of malnutrition. Eight out of ten children in Guatemala suffer from chronic malnutrition. Malnourished children, who already suffer from stunting, are also more susceptible to disease, infection, and cognitive impairments. Chronic malnutrition can manifest itself at conception and perpetuate itself throughout one’s life. The “first 1000 days” refers to the time the child is in the womb and the first two years of life. When malnutrition starts in the womb, it is because the mother does not consume adequate nutrients during pregnancy. This carries over into the newborn stage where, in Guatemala, the infant is given coffee. Breast milk contains key nutrients and antimicrobial agents to help strengthen the child’s immune system, but many mothers do not give breast milk to their children because they think it is dirty and too thick; these mothers think this because their mothers and mothers before them never used this milk. Instead, infants are given coffee to drink. Since coffee is made with boiled water, which reduces the amount of bacterial agents, mothers believe it will prevent illness. Instead, the coffee causes a long-term problem. Sugar is then added to make it a watery, sweet drink (Derewicz). This is not a nutrient dense supplement and results in micronutrient deficiencies such as iodine, vitamin A and B12, and calcium. These micronutrients ordinarily would be passed from the mother to infant through breastfeeding, but the lack of breast milk in the early stages of life results in the infant having worsened malnutrition and making the child more likely to contract disease (Derewicz).

Another consequence of living in poverty is that many individuals spend a great deal of time inside without proper ventilation (Project, "The Worst"). Many mothers and their children spend much time indoors in areas of the house that are not properly ventilated, like the kitchen, where biomass cooking stoves are located. Due to the non-ventilation and extreme air pollutants expelled by the open air stove, a person is more likely to suffer from respiratory issues, compromising their immune system. The number one cause of death in Guatemala - 14% - is lower respiratory infections ("CDC in Guatemala"). Children are likely to suffer from respiratory issues such as pneumonia because their bodies lack nutrients and a strong immune system. Poor sanitary conditions cause young children and people of all ages to contract a variety of diseases such as diarrhea, dysentery, and polio.

Health care in Guatemala has been a constitutional right since 1996. This right has been challenging to ensure because of the lack of physicians. The ratio of doctors to patients is very low: 0.36 doctors to every 1000 people. This severe lack of doctors is a byproduct of the poor education system and not having people properly educated on their own health. Because Guatemala is mountainous, communities are stranded and this makes it difficult for health care workers to access the people of those villages ("Healthcare Access and Conditions in Guatemala"). Many infants are not given all their vaccines due to the expense and because people are poorly educated about the importance of health care in the first place. Only 59% of infants in Guatemala are given all their vaccinations. Because Guatemala is so poor in health care, Guatemalans are struggling to meet Sustainable Development Goal #3.

Guatemala is rich in water resources, with a myriad of lakes, streams and rivers ("Guatemala," LandLinks). However, the surface water is extremely polluted and is not distributed evenly to people across the country ("The World Factbook: Guatemala"). The reason the water is so polluted is because of large scale farming and the large amount of pesticides used in the late 1900s. Another reason the water is so polluted is because domestic water waste finds its way into the tributaries, affecting the rivers and the health of the water. In Guatemala, it is not uncommon for a densely populated area to have very little water availability ("The World Factbook: Guatemala"). Only seven percent of the water is used domestically: this is the water used for showers, cleaning, making food, and restrooms. The agricultural sector takes eighty percent of the water for irrigation. The last thirteen percent of the water is used industrially ("The World Factbook: Guatemala").

Agriculture makes up 20% of the GDP in Guatemala ("Guatemala," *Guatemala Economy*). The agricultural sector employs more than 40% of the people. The main exports include sugar, bananas, and a few vegetables such as green beans, Brussels sprouts and baby squash. Coffee is the biggest export ("Guatemala," *Adoption*). The land in Guatemala is largely agricultural with 43% of it used for farming. Arable land makes up 13%, leaving 44% of the land for other uses ("Guatemala," LandLinks). Due to its location and geography, Guatemala is susceptible to natural disasters, such as hurricanes, tsunamis, earthquakes, volcanic eruptions, and extreme temperatures. Guatemala consists of a plateau covered by tropical rainforest and grasslands and the Cuchumatanes Mountains and Sierra Madre Mountains. Because of this geography, the Guatemalans have used different techniques for growing crops on the mountainsides: terraces, contour planting, and live fencing. Terraces are steps built into the mountainside to eliminate excessive erosion ("Guatemala," LandLinks). Contour planting is a more natural method where farmers plant the crops around the shape of the mountain. Of these techniques, terraces are more effective because they minimize soil erosion. The Guatemalans use living fences, which are tight hedges of different plants, to keep pests such as bugs and other animals away. The living fences can also be utilized to grow food for animals in the surrounding areas.

The average national family size in Guatemala is 8 people, consisting of a mother, father, and several children: an average of 6 children to a mother (“Guatemala Average Household Size”). The typical farm size in Guatemala ranges from 0.2 hectares to 1.5 hectares. The families that perform subsistence farming are usually malnourished because their farms are quite small and do not always yield a sufficient amount of crops. Guatemalans also do not have easy access to herbicides that will help plants grow. Nevertheless, the land in Guatemala is rich and fertile and bears many important crops. Many citizens try to grow key crops, such as corn, beans and rice, which are the main contributors to the Guatemalan diet (“Guatemala,” *Adoption*). Beans are rich in potassium, magnesium, iron, zinc and are an essential source of protein in the Guatemalan diet. Rice is a source of magnesium and manganese. Corn provides phosphorus and magnesium. When the food is available, squash and tomatoes and wild game will supplement the main dishes (“Guatemala,” *Adoption*).

However, Guatemala’s government has imposed several trade restrictions, especially on the United States, making importation difficult for surrounding trade countries (“Trade Barriers”). Guatemala has these barriers in place so they are able to inspect and value all the products coming into the country. These restrictions include custom regulations, sanitary and phytosanitary certifications, product fortification requirements, and product samples (“Trade Barriers”). The country also has tariffs on exports like coffee beans, sugar, and bananas, making it expensive for small businesses to derive income from exports.

In several communities there are private and community gardens for the people who are not employed in the agricultural sector. Typically, one can find private gardens only in the cities and in wealthier areas. The community gardens are more common throughout the mountain villages. Many people will go into debt trying to start a garden because they live on so little money a day. They will take out loans to try to get the garden started (Rice). The crops from these gardens are used for family meals, but gardens form employment and income through food markets. It is difficult in some areas to have easy access to food markets, even if Guatemala is famous for its expansive open air markets (Quixtan). Many women work in these markets because they do not have the education to obtain a better paying job (Quixtan). The people who work in the markets have a difficult job because they have to sell products for which prices differ throughout the market. In other words, competition forces prices to be low and thereby restricts income.

A large portion of Guatemala’s population is employed in farming businesses, but another group is employed as house maids and some as teachers (“Guatemala,” *UN Women*). Some boys and men join gangs to ensure the safety of themselves and their family. Being in a gang also opens up financial opportunities. In order to receive compensation for their work, they must participate in armed-robberies, drug dealing and kidnapping (Ciatto). Many Guatemalans employed in regular professions do not receive minimum wage; indigenous people receive even less. The average yearly salary is 188,079 GTQ which is \$24,864 in US currency (“Guatemala,” *Guatemala Economy*). This small amount of money becomes more miniscule because of taxes. Not all of Guatemala is poor, however; there are 260 Guatemalans, 0.001% of the population, who own more than 55% of the national economy (Project, “Current”). The result of the income inequality, in Guatemala, is low economic growth and increased social issues.

Education in Guatemala is very limited and difficult to obtain because of the many challenges the citizens face daily. Primary school in Guatemala is free and compulsory, meaning it is required by law to attend. However, children struggle to get to school because they have to travel long distances, taking hours to get there, all because of the lack of school buildings in communities spread throughout the country. This is why there is a drastic drop in enrollment, totalling only 40%, in secondary school (“Education”). Secondary school also comes with the cost of uniforms, books, and other school supplies on top of the actual cost for the courses being taken. A lack of technology and teachers using Spanish as the teaching

language, even though there are many indigenous students who do not know the language, lessening the quality of instruction (“Guatemala - Educational System-Overview”). These circumstances can lead to poor performance. Only forty-five percent of sixth graders meet the national standard for mathematics (“Education”). Even lower than that, only thirty percent of sixth graders meet the national standard for language (“Education”). The high male to low female ratio in schools across the country is the result of females having to drop out of school because they have to help at home. The expected role of females, in the Guatemalan social system, is to work in the homes and take care of children. The average female in Guatemala receives 4.1 years of schooling in her lifetime, meaning she lacks basic education, including sex education. The high rate of teenage pregnancies in this Central American country, is in part, due to this lack of education. Another reason girls do not attend school is because they do not have access to feminine products to help them when they begin menstruating. These young girls are unaware of how women become pregnant, so they become impregnated at young ages and will sometimes be forced out of school because they now have to take care of a child. Guatemala is also a predominantly Catholic nation, so Guatemalans do not practice any form of birth control.

If students do make it out of primary and secondary school, a nominal few move onto university. University is expensive and is not easily accessible; there are only five universities in Guatemala, all located in Guatemala City, the capital. This makes it extremely difficult for the less fortunate to make it to college and gain a higher education. Due to so few people going to college and the failing education system, two million citizens in Guatemala aged fifteen to twenty-four do not have basic speaking or life skills to get even a low-paying job. Looking at the younger population of Guatemalans, ages ten to nineteen, only two thirds (66%) of females are literate compared to 80% of males. The female to male literacy rate is 0.86 among fifteen to twenty-four year olds. The literacy rates among adult females to males is even lower at 0.77. While looking at Guatemala’s female population, aged fifteen to sixty-four, only 39% of women are literate (“Guatemala - Educational System-Overview”). This large disparity between male and female is too large and needs to be decreased as soon as possible. If more women are educated, they will be able to hold positions in power and make decisions. As Melinda Gates said, “When more women have a voice in the rooms where decisions are made, more of those decisions will benefit all of us” (Gates).

As one can see, there are large gender inequities in education. These inequities carry over into everyday life and the consequences are devastating. Gender-related violence is prevalent in Guatemala, centered mainly around sexual violence (“Guatemala,” *UN Women*). Hundreds of women are killed yearly due to the violence from men. Only forty percent of women are in the workforce compared to eighty-three percent of men (“Guatemala,” *UN Women*). 7.2% of women find work in household services (“Guatemala,” *UN Women*). Those types of jobs are not covered by laws and many workers do not receive minimum wage. Being a female household worker can be dangerous. Many of these women leave their hometowns and families to obtain a job and a source of income in bigger, wealthier cities to help their family back home. These women work diligently in the households and are subject to forms of abuse, like sexual violence. The women are not able to avoid this mistreatment because the owners of the household have, basically, full control and can inflict harsh punishments upon them (Reynolds et. al). The cruelty of these beatings and punishments has been common since 1960 when the civil war broke out. The people of the Guatemalan government raped and killed the women of the indigenous people because the women were seen to be the root of the communities of the indigenous people (“Women’s Justice Initiative”). Gender-related violence has been prevalent in the culture of Guatemala because of the delicate legal and social system, as well as the patriarchal nature of the society.

A solution to food insecurity in Guatemala begins with unbiased, quality education to all citizens. While this task may seem insurmountable, it is achievable by Guatemala's government partnering with Global Partnership for Education. Global Partnership for Education, or GPE, is a non-governmental, partnership-based, global fund organization located in Washington D.C. which helps many developing countries meet their goals in educating children. The goals of GPE are to support and promote quality education for all children, both male and female; increase financing for schools; and give students and teachers more opportunities in the classroom ("Global Partnership for Education").

First, to be considered a partner of GPE, the government of Guatemala will have to develop the following: a well thought out education sector plan containing a long term vision for the education of the students in the country, the fundraising policy, the approach on how to achieve this vision, and the principles and values of this approach ("Global Partnership for Education"). Guatemala will be able to form a proper education sector plan through six steps: analysis, planning and appraisal, approval and endorsement, implementation, monitoring, and evaluations ("Global Partnership for Education"). The analysis portion consists of looking at qualitative and quantitative data in Guatemala including the teacher to student ratio, improvements that can be made to schools that already exist, and mapping where the schools are already located and they should be located so walking distances are shorter ("Global Partnership for Education"). The president of Guatemala, Alejandro Giammattei, the Ministry of Education, a representative from GPE, and the donor group will coordinate the type of financing the education sector plan will need. President Alejandro Giammattei will oversee and accept or reject the education sector plan. The Ministry of Education in Guatemala will work with GPE and the government to make the sector plan. The donor group is a country or countries providing the payments for the plan. The planning and appraisal stage includes Guatemala's government forming a plan regarding the data collected about students, teachers, and distances between schools. The planning will aim to improve access to schools, the quality of education through teachers and technology, the efficiency of the system by providing meals and transportation for students, competitiveness by implementing English, as a second language, information on technology, and trying to encourage more community participation by citizens ("Global Partnership for Guatemala"). Once the planning is done, the partner country and GPE will assess the plan. The approval stage of the plan consists of recommendations to improve the education sector plan. Once these improvements have been made, the government of Guatemala will adopt the education plan and the partner country will endorse the plan, showing they are committed to helping Guatemala ("Global Partnership for Education"). The implementation of the education sector plan will be arranged in multi-year plans. The multi-year plans will consist of the targets or goals such as: building schools in different communities, employing enough teachers to at least maintain the current 1:31.85 teacher to student ratio ("Guatemala Student"), providing transportation and meals for students, and the budgeting for the goals. It is the government's duty to implement the plan and the responsibility of the donor to give financial support ("Global Partnership for Education"). The monitoring of the education sector plan includes regular assessments by the Ministry of Education and GPE. The evaluation occurs at the midterm or end of a multi-year plan, and is performed by the donors, GPE, and the government of Guatemala, to examine the plan's results in the communities: the budgeting, the efficiency of the plan, and how the communities are reacting and encouraging the students ("Global Partnership for Education").

If Guatemala delivers a strong education sector plan, which is essential in building the framework of a more equitable education system, GPE will begin supplying the country with the support and means to enhance the planning and help them achieve the country's goals as well as meet the United Nations Sustainable Development Goal #4, inclusive and quality education for all ("Global Partnership for Education"). The education sector plans are essential in regulating the efforts of the education partners and promoting the idea of all children receiving a quality education. By having Global Partnership for

Education collaborating with Guatemala's government, it is possible to educate the younger generations. Educating children of Guatemala will ensure a bright future for all the country. The schooling will drop the gap between the literacy rates of males and females: the decreased gap will also decrease the gender-related violence because women will not be seen as beneath men. Also, once more females are aware of how their bodies work, they will be able to understand menstruation and how a woman becomes pregnant, resulting in a drop in the teen pregnancy rates and the opportunity for girls to stay in school longer. If a girl were to become pregnant, she would be educated on how to care for herself and the child inside her, decreasing the risk of chronic malnutrition for the child. These first miniscule steps are essential in the marathon for slowly conquering malnutrition in Guatemala. These children will become educated in several different areas and will be able to find a profession that best fits them. The agricultural sector will also be more beneficial to the society of Guatemala because farmers will be producing more nutritionally fit foods. If boys and girls are educated at a young age, a future of less poverty, less malnutrition, and fewer socio-economic challenges will be secured. The issue of food insecurity in Guatemala is not based on the quantity of food, rather the quality of education.

The most beneficial thing Guatemala could do is become self-reliant in its education sector. Self-reliance would allow the people of Guatemala to become educated, and education is the key to a better future. Guatemalans obtaining an education would allow for the country to prosper in its education sector, but also in the agricultural and industrial sectors. The agricultural and industrial sectors play an important role in the economy of Guatemala: the improvement of these two sectors means an improvement to the overall poverty and malnutrition rates of the Guatemalans. With all areas of Guatemala slowly developing, it will allow the citizens of Guatemala to begin focusing on themselves and the future of Guatemala.

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