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Guatemala: Malnutrition and its Effect

With the twenty-first century racing into the lives of everyone over the globe it is difficult to keep up with everything that is going on, the world today is changing. It has become quite easy for very fortunate people to get caught up in what is believed to be the urgent and severe issues of their lives. As these fortunate people are busy being caught up, they quickly forget about the pressing issues going on throughout the world - especially for people in developing countries. This notion is seen clearly in Guatemala. The citizens of Guatemala continue to suffer from poor sanitary conditions, increase of disease and lack of food security (World Bank, 2003). Chronic malnutrition is one of many major concerns in Guatemala especially for children. The rate of malnutrition ranks the highest in Latin America and the Caribbean; it is also ranked fourth in the entire world. Guatemala faces a serious challenge to reduce chronic malnourishment not only now but in the future as well (World Food Programme, 2015).

"Guatemala right now faces an economic and food insecurity crisis, further exacerbated by drought" (World Food Programme, 2015). There are many factors further affecting Guatemala's economy and it is considered one of the most unequal countries in the world in comparison of its annual income to the average expenditures. Reduced agricultural exports which are the main income have reduced foreign investment, increased debt as well as unemployment, and decreased number of tourists which are also a big source of revenue. With a growing debt, Guatemala has had to cut back on important investments in crucial areas like, education, agricultural practices, and healthcare. With the rise in price of agricultural inputs, there has been a negative impact on the availability of proper fertilizers and high quality seeds, hurting subsistence farmers (UN World Food Programme, 2016). A large issue in result of this is the stress of quantity over quality. The more food produced has become more important than the actual nutritional quality of it. Both are a struggle with these small farming families without the proper funding on things like, fertilizers, seeds, and practices.

All of these crises restrict the access to food for families throughout Guatemala. Even more so for the "...already impoverished and food-insecure families" (World food Programme, 2015). On top of the economical and agricultural struggles, the country has always been prone to natural disasters. The very livelihoods of families living near center points of floods, droughts, earthquakes, and even hurricanes are put at risk. Unprepared populations living in vulnerable areas like these of Guatemala struggle on a daily basis. Many of them are unable to move because they simply can't afford to relocate from where they are. On average, an indigenous family may only make the minimal income of one dollar a day selling whatever they can manage to produce. The monthly income needed for a family to have what may be considered basic needs like food, clothing, housing, education, health, transportation, and some other minor goods for the average family of five is \$490 US dollars. Something almost unheard of considering it's typically \$134 US dollars in lower middle class families. The most important thing is to find a solution to Guatemala's growing malnutrition rates through better education, sanitation, and new agricultural practices for generations to come.

1. Guatemala

Guatemala is a low-middle income country of 15.8 million people (GEF. Web, 2016). It is the most populous state in Central America. This averages a minimum of about five people per household but can reach upwards seven not including a husband. An organization called Feed the Future says that "As much of forty percent of these families don't have access to healthcare and many of those who do can't afford it." Guatemala also has some of the highest levels of inequality, poverty, chronic malnutrition and mother - child mortality in the region. It is one of the 36 countries in the world which account for 90 percent of stunting in the world (World Food Programme, 2015). According to the Food and Agriculture Organization of the United Nations, self-sustained family owned agriculture accounts for 59 percent of farmers. Many of which rely on older and outdated forms of farming practices. This plays an important role because of the low amount of income that Guatemala receives each year, it can become very difficult to be able to afford agricultural imports needed. The face of poverty and hunger is young, indigenous and rural (GEF. Web, 2016). These types of citizens in this country make up the majority of most destitute families and children throughout the country.

Located in Central America between the Pacific Ocean and Caribbean Sea, Guatemala consists of a varied landscape spanning just over 100,000 sq. km. Mainly consisting of a string of volcanoes and mountain chains which equal up to two thirds of the country, it is also home to many vast expanses of rainforests. Throughout this, Guatemala's landscape is covered with various caves, caverns, and underground rivers. Through the months of November and April, one of the biggest threats facing the country's agricultural practices is the dry season. During this time droughts are very common. Neighboring Guatemala is Mexico covering both the north and west with Belize, El Salvador, and Honduras on the east.

2. Poverty

Illiteracy and lack of education over the past decades has contributed to sustained poverty levels throughout the entire country. Poverty affects 51 percent of the population; extreme poverty affects 15 percent (World Food Programme, 2015). As a result of such high levels of poverty, many families cannot pay for their children to attend school, affecting the country's educational standards as a whole. Children left very illiterate can hurt the country in the future. However in order to truly solve this problem poverty has to be fixed at the source of the countries only income (GEF. Web, 2016). Supporting horticulture and coffee production is an essential starting point for alleviating poverty in Guatemala, mainly because the money collected from these professions lead to the growth and job creation in Guatemala's entire economy. Of all the products produced per year, the country alone consumes an average of seventy percent of total production. Leaving only twenty percent for exporting. This does not leave much income for the country overall. As of right now the per capita GDP is estimated at only \$3,700 (World food Programme, 2015). Tourism revenues and access to credit have declined; unemployment and the Government's budget deficit have increased making the country weaker by the month. Each of these variables have contributed to the decline of Guatemala overall. It's very important that there is a strong central government willing to help and not inflame anymore issues that may come about in possible future scenarios so the main objective of the Government's agricultural policy is improving the livelihoods of rural populations that make up most of the country (World Bank, 2003). The World food Programme

claims that, "Through productive systems compatible with commercial development, the policy promotes food security through increased safe foods, and improved productivity and access to fresh markets."

3. Malnutrition

Ranking fourth in the entire world for the number of malnourished citizens overall makes Guatemala's children the most undernourished in the entire Western Hemisphere (World Bank, 2003). The chronic malnutrition rate for children under 5 is an unbelievable 49.8 percent according to a data collected and reported by the World Food Program. The malnutrition crisis has led to an increase in the risks of death and impairment of cognitive development in children, affecting their future productivity and earnings (World Bank, 2003). Because of this, it has further damaged the country for future generations of possible poverty and malnourishment alleviation.

Guatemala is home to an estimated seven million Mayan families which makes up forty percent of the total population. A very interesting study done by a group named Save the Children took a look at the effects of malnutrition in native Mayan families vs American born Mayan families. The group recorded the results and claimed, "The difference was dramatic." The American Mayan kids on average were six inches taller than the children raised in Guatemala. The World Health Organization's global average height for the nine year old kids determined that Mayan kids raised in Guatemala were significantly shorter than what they should be for healthy growing. The Save the Children group explains that diet plays a critical role in growth stunting. The American Mayan children had access to better food and overall living conditions which caused them to grow taller and healthier.

Location plays a key role in the effect on malnutrition. Getting adequate nutrition comes from having access to areas with it. For example, the majority of produce grown to sell are all transported to farm markets typically located in the cities capital where more people live and travel to. With all of these major farm markets stuck there in the capital and large cities, rural families, the ones who work the most with agriculture cannot easily access them. Not being able to sell their product hurts the economy and reduces their income to a more wide variety of nutritional supplements. The mothers of the family strive to get the proper nutrition for their kids and husband leading them to spend nearly all of their income on food eliminating the possibility of it going to other things like proper education. It has become something of a constant cycle in Guatemala where the threat of malnutrition has affected the future productivity, efficiency, and generated income of future generations. Already each and every day it becomes a more difficult challenge to solve this issue because half of the population is not even physically or mentally strong enough to combat it.

4. Education and literacy

The elevated nutritional food deficiency is not uncommonly linked to detrimental effects on a child's health and learning ability. Hunger and malnutrition have a direct impact on health and cognitive development, consequently affecting productivity, income and asset growth. All of which are needed and imperative to the country's development in future years. On average only three out of every ten children successfully graduate past the sixth grade (GEF. Web). Nearly twenty five percent of the country's population is illiterate which is very likely a result of the fact that average schooling in Guatemala last only a short four years. Unfortunately the current state of education is considered substandard (World food Programme, 2015). Very often children are forced to leave school due to the need to provide family

income and this is also encouraged due to the lack of family income making paying for school very difficult. Many children drop out to help support the family financially through farming ending their education right then and there. Even right now this is seen as something very common to happen in Guatemala.

Education is a required standard in Guatemala for only up to six years free. These six years consist of primary, secondary, and tertiary school (Guatemala Profile, 2016). A majority of families do not follow this leading the average amount of years attended at 4.9 (United Nations, 2016). This is so because of a variety of reasons. For one, studies have shown stunting has had direct impacts on learning, lower IO and lower earning potential all the more hurting Guatemala's economy. One family in the country had a daughter who struggled with memory loss. She was only 15 years old and was unable to attend school because she couldn't retain enough to be successful. All of this had started with the lack of proper nutrition. As for the relation to lack of future employment and productivity, because kids stay home from school leaving behind education, right now twenty percent of the poorest Guatemalans came from only having just over a year of learning (United Nations, 2016). Sadly, the government only devotes 17% of its entire budget towards education which is not enough and young generations are paying the price. America who ranks among some of the best educational system puts out a minimum of 154 billion dollars on average every year (New America, 2015). In order to help combat the malnutrition rate, people need to be educated on health, sanitation, and agricultural standards. This can only come from something like putting more money towards the educational system. Although in past years, rural education has become more available (United Nations, 2016) there is a lot of work needed as far as funding goes with equipment and supplies to last the whole year. Much of this is missing from the educational system in Guatemala, giving more reason for rural poor family children to drop school and help out at home. In some cases, a decent school is available in a community. It is the lack of transportation to and from school is what prevents children from being able to make it their safely and with enough strength.

5. The solutions

As mentioned before, Guatemala suffers severely in lack of proper education. Not only in food security and common education standards, but in knowledge of health and nutritional guidelines. With a new education system incorporated in the country, immediately the changes would be beyond rewarding. There are many different organizations that could work throughout the world helping countries similar to Guatemala by establishing new standards of learning and making nutrition education more available to children growing up. Making Guatemala a more literate and nutritionally conscious country would also improve agricultural techniques with fresh minds and ideas on how to make the country better in any way they can. There are numerous examples where organizations come in offering nutrition education to help rural families. For example UNICEF, has shown this process to be one that is very successful in over 190 countries. Nutrition education is a key part of UNICEF's work so much in fact that their success can for sure be replicated in Guatemala. According to Hunger Organizations, "In the last two decades, UNICEF has helped reduce the number of preventable under-five child deaths by more than 40 percent." Improving the small farming families, their living conditions, and livelihoods with practices learned through new education are all things that the community and government in Guatemala can work together on, strengthening any work that is being done through numerous donors and volunteers from many different organizations.

Despite all these challenges that have been present, Guatemala has continued to have tremendous potential for expanding its agricultural production, which could lead to rural economic growth, job creation and poverty alleviation. All of which Guatemala is in desperate need of here in the twenty first century. Already Guatemala's production of non-traditional agricultural exports have grown exponentially over the past 10 years, benefitting smallholder farmers which make up forty percent of the country's population (Rural Poverty Report, 2016). In countries like Guatemala, where almost half of all children are undernourished, it is extremely important that the government takes pinpoint and targeted actions in the areas of health, education, and nutritional information. The country faces many barriers without proper funding to this solution. They will rely on the support of the many generous donors and leaders of the country to steer their government towards this solution with proper funding as well as the will to cooperate and assist any and all help offered. The most important role played in this will be the participation of the citizen's volunteer work and passion already in Guatemala looking to help make a change in their country.

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