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Trinidad and Tobago, Malnutrition

Trinidad and Tobago: Educating the Rich, Feeding the Poor

Food security is a growing problem as the world's population is rising well over the seven billion mark and is expected to reach nine billion by the year 2050. Some countries are already struggling to feed their people, and at the same time other countries are struggling to stop people from going obese from eating too much unhealthy food. While hunger is a major problem in our world society, malnutrition is also a very large and overlooked issue. Many rich countries such as Trinidad and Tobago have more than enough food to feed their population, but people are not getting the balanced diet that they need. This creates a major gap between the people with more than enough to eat and those who struggle to survive. Surprisingly, this gap can oftentimes be found within a country, especially the countries that are generally seen as rich countries. One example of this is Trinidad and Tobago, even though Trinidad and Tobago has become a very rich country through oil sales, they still struggle with malnutrition, hunger, and even poverty.

Trinidad and Tobago has a total population of about one and a half million people, half of which live in rural areas and half of which reside in urban areas. The government of Trinidad and Tobago is a parliamentary democracy very similar to that of Great Britain. The government consists of three branches including the executive, legislative, and judicial branches with a president appointed by an electoral college. Trinidad and Tobago also has a prime minister which is chosen by the standing president at the time. Trinidad and Tobago is two separate islands, with similar climates and geography. Trinidad, which is the smaller of the two islands, has an area of one hundred and sixteen square miles. Tobago on the other hand has an area of almost two thousand square miles. Both islands have relatively warm temperatures year-round and average around eighty-five inches of rainfall annually which is sufficient for the limited agriculture that the islands possess.

Trinidad and Tobago has also historically been a very rich country as they possess many natural resources such as petroleum oil and natural gas, both of which they have sold to make large amounts of money. Recently, Trinidad and Tobago has begun to shift away from petroleum oil and has shifted its focus towards natural gas as its main trade export. Since they are an island nation, there is not much space for farming which means most of their food is imported from other countries in exchange for other natural resources.

Even though Trinidad and Tobago is able to acquire these resources and has made a large profit off of natural resources, not everyone in their country is striking it rich. According to one study, "Although the economy has seen a significant boost since its independence in the 1960s, 26 percent of the population is living in poverty, surviving on less than \$2.75 a day" (Thelwell). This gap is beginning to cause problems because the people living in poverty are struggling to make enough money to pay for food. Rising inflation and unemployment rates are only making the gap bigger, and if left unchecked the country's economy could potentially collapse.

The average family size in Trinidad and Tobago is from three to four people per household. Typical families in Trinidad and Tobago have access to most of the resources necessary for survival such as clean water, food availability, healthcare, electricity. However, not all families are able to afford them. One

problem that families face is building cost because all of the building materials are imported along with their food. Having materials imported means that the residents have to pay for shipping cost on top of the rising material prices. The average income per person is about twenty eight thousand dollars per year, with the minimum wage being as low as seven thousand, eight hundred dollars per year.

There are currently many job opportunities ranging from McDonald's workers to computer technicians, however, unemployment rates have been rising in the last fifteen years. According to a government study, "Unemployment reached 5.8% in December 2009, up from 3.9% in December 2008, and recent estimates indicate an unemployment rate of 6.7% in 2010. However, official rates likely mask a higher underemployment rate by counting participants in government make-work projects as employed persons." (Trinidad and Tobago Targeting Reduced Food Imports). Overall, the families of Trinidad and Tobago possess most of the resources necessary for everyday life, however there is not a lot of space for agriculture on the two islands.

Out of the two islands which make up a total of about two thousand square miles, only two hundred square miles are for agricultural use. This means that only ten percent of the land is used for agriculture between the two islands. Some of their major crops are corn, rice, cocoa, coffee, sugarcane, and garden fruits and vegetables, however their only cash crops that they export are cocoa, sugarcane, and coffee. Even though these items are Trinidad and Tobago's major agricultural exports, they only account for a small portion of their total exports. Infact cocoa, sugarcane, and coffee makeup less than twenty percent of Trinidad and Tobago's total exports.

Since Trinidad and Tobago does not have a lot of space for traditional agriculture, they must import most of their food which makes it more expensive. Currently, Trinidad and Tobago is able to import enough food for a relatively fair price. However, if shipping were to shut down again as it did during the COVID-19 pandemic, they could be in a very tough situation. Having that much reliance on imported goods can be a very risky situation that a lot of countries try to avoid by producing more goods within their country. However, Trinidad and Tobago has not been reducing their dependence on other countries, in fact they are doing the opposite. In a study done about reliance on imported goods, the Oxford Business Group concluded that "T&T is a net food importer, meeting as much as 85% of its needs from imports, compared to around 60% in 2000." (Trinidad and Tobago Targeting Reduced Food Imports). Relying on imported goods also means that countries can be subject to price changes that they can not control. These price changes can be anywhere along the supply chain, whether it be the goods themselves or the shipping prices. These raised prices will affect the consumers, especially the twenty-five percent of the population that is living under \$2.75 per day mark.

One solution to place less dependence on imported food products is to use urban agricultural practices. Urban agriculture is where food crops are grown in urban areas, sometimes even on rooftops. Urban agriculture has many benefits; community members can grow their own food, learn about agriculture, and rely less on imported foods. Being able to grow their own food could be very beneficial to the citizens of Trinidad and Tobago. According to the U.S. Department of Agriculture, "Urban farming can reduce transportation costs, help reduce runoff associated with heavy rainfall, and lead to better air quality." (Urban Agriculture). There have also been many technological advancements related to urban agriculture such as vertical farming and even hydroponic farming which does not require soil. For an island nation, hydroponic farming could be very beneficial because they could use filtered ocean water to grow their crops. Hydroponic farming has been proven to be just as effective and efficient as traditional farming methods. Residents could also create community gardens to grow their food. Apartment owners could even allow rooftop community gardens for the inhabitants of that specific apartment. Since over fifty percent of Trinidad and Tobago's citizens live in urban areas and only ten percent of the land is agricultural, urban farming could make a big impact on the lives of those citizens. Growing their own food would also allow them to make sure that the food that they are consuming actually possesses the proper nutrients necessary to live a healthy lifestyle.

Malnutrition is currently the biggest problem in Trinidad and Tobago as the majority of families have enough money to buy food but are not getting nutritious diets. According to Merriam-Webster's Dictionary, malnutrition means "faulty nutrition due to inadequate or unbalanced intake of nutrients or their impaired assimilation or utilization" (Webster). Malnutrition is commonly confused with hunger, which is a lack of food altogether. Malnutrition can lead to obesity, and even stunted or overweight children. All of these side effects can lead to long-term problems both for the parents and their children. According to a United Nations report, "Malnutrition in all its forms (undernutrition, micronutrient deficiencies and overnutrition), poses one of the greatest threats to people's health and well-being." (Silva). Despite all of these concerns, malnutrition rates are currently rising in Trinidad and Tobago. In recent years there has been an increasing prevalence of obesity, stunted children, and overweight children. This means that the people of Trinidad and Tobago are not receiving the necessary nutrition that is needed to function properly. They are either receiving an unbalanced diet of macro and micronutrients, too many of both or too many of both. Steps need to be taken to help the countries' citizens maintain a balanced diet in order to avoid these diseases.

The people of Trinidad and Tobago need to first be educated on what a balanced diet consists of, and secondly, be taught what foods will help them meet their dietary needs. According to Narayana Health, "A balanced diet should offer around 60-70% of total calories from carbohydrates, 10-12% from proteins and 20-25% of total calories from fat." (Health). If people do not learn about their diets, they will fall victim to the diseases and growth issues mentioned before. This is why it is extremely important that we educate the people of Trinidad and Tobago about their diets. One way to do this would be to integrate a dietary class into their schools so that children can begin learning about their health at a young age.

One solution that has been put into place to try to flatten the malnutrition curve is called the Plan of Action put in place by the Caribbean Public Health Agency (CARPHA). The Plan of Action is an experiment being done at high schools in four countries around the Caribbean including Grenada, St. Kitts and Nevis, St Vincent, and Trinidad and Tobago. CARPHA has gone to high schools in each of these countries to teach students about nutrition and physical activity. Teaching students the importance of physical activity is critical because if they are not active they are even more susceptible to stunting or obesity if they do not maintain a balanced diet. The main weakness of this solution is that it has only been implemented in one high school. If they were to expand this experiment to all high schools in the countries it was tested on they would be able to educate a higher percentage of the population.

It is also important to teach the students what foods provide each type of nutrient. Some of the best sources of proteins are meat and eggs, but there are also plant-based proteins such as peanuts and beans. While they are often seen as evil, carbohydrates are actually a very important part of a balanced diet as well. You can get carbohydrates from grains such as wheat and oats. Finally, fats are important, but it is important to be careful what fats are being consumed. Some healthy fats are those such as peanut butter, avocados, cheese, and chia seeds.

Using the right ratios of these foods will help people maintain balanced diets to avoid malnutrition and the side effects that come with it. Using the urban farming methods mentioned before, the people of Trinidad and Tobago would be able to grow the food needed to maintain a balanced diet. For example, lettuce, tomatoes, and even peppers grow very well in hydroponic systems and there are other plants such as carrots and peanuts that could be grown in the rooftop or community gardens.

Overall, Malnutrition is currently the most predominant issue facing the people of Trinidad and Tobago. If nothing is done about it, the levels of obesity, stunting, and overweight children will spiral out of control. Less reliance on imported food, and more reliance on in-country agricultural practices will make a major difference. Able to grow their own food through urban agriculture and hydroponics will be cheaper, more efficient, and more reliable than importing all of the food that they eat. Finally, the people of Trinidad and Tobago need to be educated on Malnutrition and the effects it can have on their lives. Expanding

programs such as the plan of action will allow students to learn about their health and nutrition needs in order to protect their futures.

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