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Bolivia is a country with an abundance of attractive natural resources. From its deserts, jungles, rain forests, mountain ranges, and marshlands, Bolivia is full of interdependent landforms. These landforms depend on not only each other, but the people who inhabit the land around the resources. Bolivia's natural resources provide people with many opportunities for jobs and income. Without these landforms Bolivia would be significantly less successful. These fresh Andean grains, berries, and greens are available, but expensive. For this reason, one of the largest problems facing the people of Bolivia is the people's reliance on cheap carbohydrates. These inexpensive carbohydrates do not give people the essential vitamins and minerals, but rather make people prone to diseases and obesity. As a result of cheap carbohydrates, many people in Bolivia develop iron deficiency. Despite the reliance on inexpensive carbohydrates, many Bolivians simply do not have enough to eat. However, those that do have enough to eat commonly eat food that is high in carbohydrates. People of Bolivia not only suffer from not having enough food, but they also suffer from eating food that is not high in essential nutrients.

Malnutrition is common within families in rural Bolivia because many families cannot provide enough food for the entire family. The size of the typical family in Bolivia is fairly consistent in both rural and urban areas. The common family is either nuclear, which consists of a husband, wife, and children, or extended, consisting of family members such as in-laws, cousins, or spouses of children. In Bolivian culture, divorce is frowned upon in rural areas. For this reason, single-families are not common in rural areas. Despite divorce being very uncommon, it would be virtually impossible for a single family to survive in rural communities due to the amount of work that it takes to survive. This struggle to survive with a complete or mixed family is largely because rural families commonly have subsistent farms. These subsistent farms by definition should provide enough food for a family; however, the farms in Bolivia hardly provide enough food for a family, let alone provide an income. Families eat many carbohydrates which provide quick energy; however, they do not contain many essential nutrients. Families in Bolivia vary from rural to urban areas, rural families consist of extended family members, much like urban families do. With many extended family members living together, many families cannot feed the whole family, which leads to malnutrition within families.

In Bolivia, the typical family's diet is filled with carbohydrates. Although, the carbohydrates that many Bolivians consume are high in sugar. This is a problem because these carbohydrates do not satisfy hunger. Furthermore, on a cellular level, the glucose does not stay stored in the cell and results in a "crash" followed by more feelings of hunger. However, with a high-carb diet, other nutrient categories are deficient. This reliance on carbohydrates leads to malnutrition in many people in Bolivia. A staple food for families in urban and rural Bolivia is the potato. Potatoes provide some nutrients; however, they are not enough. Also, many Bolivians eat rice and other fatty foods. When people eat starchy foods such as potatoes and rice, stunting and obesity often occurs. Stunting prevents growth and development in children which then carries over into adulthood. The resources in Bolivia provide many foods that have a high nutritional value. Quinoa is a very common crop due to its high demand and superior nutritional value. Not only is quinoa very popular in other countries, but quinoa is considered a super-food. Quinoa has a high nutritional value, which slightly helps some deficiencies. It seems as though Bolivia should have many of its problems solved due to the abundance of quinoa in Bolivia. However, due to the high demand of quinoa, farmers in Bolivia sell as much of the crop as they possibly can to make a profit. People in rural areas often eat meals with wheat. Also, in rural areas, people commonly drink tea, and eat toasted ground cereals with cheese and a thick soup. In urban areas, coffee, tea, or a hot maize drink, are most commonly consumed. Hot meals, bread and stews are also very common. (Bolivia Facts) In large cities such as La Paz, delicacies such as guinea pig are prepared for those who can afford it. Due to an

increased reliance on cheap carbohydrates and many rural families living on subsistent farms, many people in Bolivia suffer from malnutrition.

Not only do families struggle with having access to healthy food, schools also struggle with providing teachers and food for students. Education systems in Bolivia are in a general state of disarray. Many schools in Bolivia do not offer any form of school lunch, but many organizations are taking action to solve this problem. Unfortunately, the government does not provide schools with meals for children, because the meals still have to be prepared at the school. However, the government buys food from local farms and then distributes the food to many schools. Many of these farms have been educated on survival techniques by organizations such as the World Food Programme. The World Food Programme is known to not just provide the fish to people, but teach people how to fish. Many organizations such as the World Food Programme are beginning to give flour, oil, and salt to schools. (World) A group of 85 schools in Bolivia will receive 27 metric tons of the flour, salt, and oil which will feed a total of 4,899 students. (World) Because children are hungry and may not be able to get to school due to either living too far away to walk, or not physically being able to walk to school, many children do not attend school. This also impacts the economy.

The education system is not the only system in Bolivia that is struggling. Bolivia is lacking in human capital which is vital to an efficient economy. Furthermore, due to the lack of human capital and sufficient transportation, the economy in Bolivia suffers. Bolivians had significantly worse health care prior to 1996. However, since 1996, Bolivia has been going through a period of health system reform. A decentralization process has taken place and different strategies aimed at reducing infant and maternal mortality rates have been implemented. However in rural Bolivia there is roughly one doctor for every 7,000 people. (World) This is obviously a large problem because not only can one doctor care for that many people, but when a doctor does see a patient, the care comes at a high price. In urban areas, there are more doctors, however many people cannot afford their care. This lack of care in many areas and lack of food for children leads to malnutrition among children. However, if school lunches could more readily be provided to children in Bolivia by organizations and local farms, many children would not suffer from malnutrition and would be much healthier. Additionally, more children would attend school if school meals were provided. This would ultimately improve the education system in Bolivia and offer many children an education.

Not only do the local farms in Bolivia try to produce enough food for the family and the community, this is extremely difficult because the average farm in Bolivia is about 37 acres. (Bolivia (State of)) A typical farm in Bolivia raises goats, sheep, and cows. Farmers grow coffee, cocoa, quinoa, and potatoes most commonly. Agriculture is a large source of employment for Bolivia. It employed about half (46 percent) of the official labor force in 1986 and accounted for only 15 percent of total exports in the late 1980s. (Bolivia (State of)) Because the government is looking for small farms to produce food for school lunches, many farms cannot produce enough food for both their families and their community.

Beside this, families face many barriers to improving agricultural productivity, to employment at a living wage, and accessing food markets and adequate nutrition. Families struggle with agricultural productivity because the family can only afford so much land. Also, families often try to improve agricultural productivity in inexpensive ways that hurt the land and end up reducing productivity. An example of this is that many farmers are not using traditional methods of agriculture such as crop-rotation. Farmers do not rotate the crops in order to produce more of the same crop. This ends up hurting the land and making the soil erode and be less fertile. Families also face barriers to employment at a living wage. Many rural families have a farm; however, these farms most commonly are subsistent and provide little profit. Also, due to the lack of a strong education system in Bolivia, people are not well-educated enough to obtain high paying jobs. Those who are educated are most commonly doctors due to the demand for health care. Another barrier to employment at a living wage is a lack of transportation. Many rural families cannot

commute to work in the city because they may not own a car and buses are either expensive or not available. Due to the lack of transportation methods, the typical family faces a barrier to accessing food markets and adequate nutrition. Families cannot grow many crops because of climate and frequent natural disasters. Also, due to a lack of transportation and money, many families in Bolivia cannot go to food markets very often, and in severe cases, at all. However, if school lunches could be provided more readily in schools many children could have enough energy to trek to school and would be motivated and ready to learn.

The rate of malnutrition for children in the poorest households is 40 percent. In Bolivia, close to five million people cannot fulfill the most basic needs. (Paths) Household income, agricultural productivity, and quality of life in Bolivia, have an impact on malnutrition. When household income is higher, families can afford to not only buy food, but if food is not available around the family can put more money into their farm. However, when income is low, farms suffer and the family suffers. The family may no longer be able to take care of the livestock, so it starves. Families lose money because the livestock dies, and the family continues to starve. This is a seemingly never-ending cycle that is far too common in Bolivia. Similar to a lack of household income, when families are not agriculturally productive, families do not consume enough nutrients, which also lead to malnutrition. With providing school lunches in mind, the government often tries to buy food from local farmers. People of Bolivia would then be providing children of their community with food that they grow, which leads to Bolivia having better food security. However, many families have to take care of the severely malnourished in their family. Unfortunately, when any member of a family is malnourished; the rest of the family suffers. The family constantly worries about the person and the family tries to take care of the person, but malnutrition takes over.

The present status of malnutrition in Bolivia is crippling. The status is so severe that about 12 percent of women are extremely short and are at a very high risk for having an underweight baby. Underweight babies have virtually no chance of surviving the crippling effects of malnutrition. Children who are born underweight tend to remain underweight their entire lives. Stunting often occurs in children in Bolivia. Stunting is when growth and development is inhibited in an individual. Women are extremely disadvantaged. Not only do women do exhausting work on the farm and in the home, 27 percent of women of child-bearing age are so anemic that they will most likely pass iron deficiency to the unborn children. (Paths) 50% of pregnant women in developing countries are iron deficient. This lack of iron leads to around 315,000 women to die to hemorrhage during childbirth. The mothers that do survive childbirth lack sanitation and appropriate feeding of children under two years of age, which makes malnutrition a major problem for children and later in life. Many children are raised malnourished and simply cannot recover due to their lack of care and sanitation as an infant.

Bolivian government tries to lower malnutrition rates, but this is not an easy task. Many organizations are sending foreign aid to Bolivia in the form of money, grains and other food. Malnutrition is decreasing slightly because of this aid. The World Food Programme sends Bolivia flour, salt, and oils which help many schools prepare meals for children who attend school. (World) Since Bolivia rewrote its constitution in 2008, articles have been added that help food security, however the process of recovery is extremely long, but there is hope. Trends for malnutrition are measured often by infant mortality and percentage of families living in poverty. Like many other countries in South America, Bolivia is slowly improving, but there are many other problems besides malnutrition that continue to hinder Bolivia's economic growth and the health of Bolivians.

Additionally, decreasing or resolving malnutrition would require the amount of income and quality of food to increase. Without a strong motive for children to attend school such as school lunches, children of Bolivia will not be able to learn and focus to their full potential. Malnutrition continues to cripple families with higher household incomes as well. Many schools, especially in rural areas, cannot access food,

which is another problem. Schools would not only have to have the food to feed to the children, but schools would also have to prepare the food for children. However, with organizations donating things like flour, the government can look to local fisherman and farmers for food. Having school lunches would create many more options for farmers. Farmers would no longer have to farm to feed their families, but they would farm for a profit and would be feeding the children of the community. Not only this, farmers could experiment with crops to meet the demand of people, which would ultimately lead to more profits.

Like Bolivia's natural resources, malnutrition is influenced by several factors. The construction of roads and urbanization greatly affect malnutrition in Bolivia. When roads are constructed, fertile land cannot be used properly. However, families need to have access to markets to buy fruits and vegetables. One of the largest problems is that many families in Bolivia rely on cheap carbohydrates. Families buy these cheap carbohydrates because they cannot afford highly nutritious foods and do not have access to the markets. Families need roads to access the markets to not only buy goods, but to sell their goods. However, the key to success in Bolivia is finding a balance between building roads and increasing urbanization, but preserving as many natural resources as possible. By the construction of roads, families will thrive, but have to preserve the land that they live on.

Like many other countries, Bolivia relies on local farms to provide grains, fruits, and other crops to feed the people of the country. However, the weather in Bolivia poses many problems for Bolivian farmers. From 1980 to 2010, Bolivia has suffered from 61 natural disasters. (Bolivia-Disaster) That does not seem like a very high number; however, with roughly two natural disasters a year, it is virtually impossible for farmers to recover in the short time before another natural disaster occurs. This creates a never ending cycle of disaster and recovery that farmers simply cannot live off of. The numerous natural disasters cause farmers to be unable to produce enough food for their family and the schools. The government, which tries to buy from local farms, has to look to larger farms that are farther away for food. This not only costs the government more money, but it also takes much more time for the food to get to the schools. Also, with the climate changing, farmers try to predict the conditions for their crops, but with the climate constantly changing this is becoming extremely difficult. The idea of climate change will change agriculture in Bolivia and ultimately around the world. This rise in temperatures may be beneficial for some crops, but with the rise in temperatures, changes in the frequency of droughts will also occur. Droughts will be harder for farmers to predict which will make the farmers' job even more difficult.

My recommendations for Bolivia are a combination of two things. First off, children in Bolivia need a reason to come to school, besides to get an education. A great motive to get children to come to school would be school lunch. Funding in schools are lacking, however, some of the foreign aid that Bolivia receives from organizations, such as the World Food Programme, should go to schools and be served to the children who attend. Also, teachers should educate the children on life skills that can help them survive and provide for their families when they are older. This would not only slightly decrease malnutrition in children, but also provide them with the basis of an education. Some education is better than no education for children, and with some schooling, children could potentially hold higher jobs. This would lead Bolivia to eventually rely less on agriculture and could create new jobs in Bolivia.

A project such as Integrated Community Development Fund (Bolivia Integrated) could dramatically help Bolivia. ICDF builds infrastructure projects such as schools, health centers, footbridges, community centers, and potable water and sewage systems. By March 2011, ICDF completed 322 community development infrastructure projects including schools, health centers, a footbridge, community centers and potable water and sewage systems. (Bolivia Integrated) ICDF also trains families how to strengthen economic development by providing new economic opportunities that create employment and generate income. (Bolivia Integrated) This immensely helps people in Bolivia to learn to depend on other things besides solely agriculture. This project specifically works in the Yungas and Tropics of Cochabamba regions of Bolivia. However, if ICDF could be scaled to a country wide project Bolivia could greatly

benefit through additional opportunities to go to school to become more educated, have greater access to food, and improve sanitation. This organization is so successful because the organization has many volunteers from all around the world. These volunteers teach people technical skills that help them survive and produce goods. The Integrated Community Development Fund is a great aid to the improvement of food security and quality of life in Bolivia.

Another project in Bolivia that is very helpful in providing school lunches to children is the Project Concern International. This organization provided 1.3 million breakfasts to children in Bolivia. PCI provided early education for many children in Bolivia, and also taught children early childhood skills. (Feeding) This organization is improving learning among Bolivian schoolchildren in La Paz, Oruro, Potosi, and Cochabamba. (Feeding) PCI creates a motive for children to come to school by providing a daily hot meal. More children attend school and are fed and can concentrate and focus during school. These students will then have higher wage jobs and will add to the human capital of Bolivia. Once they are adults, the children can help improve the infrastructure of the economy and help Bolivia feed the people with the food that they grow.

To end, Bolivia struggles with malnutrition for several reasons. One of which is its large reliance on agriculture. Another is that due to a reliance on cheap carbohydrates, many people find themselves “crashing” due to sugar highs and suffering from deficiencies of many nutrients. Roughly half of women in developing countries are iron deficient which often carries on to their children. Many children are malnourished due to inappropriate care as an infant and a lack of sanitation. Bolivia should try to focus on providing school lunches for those who attend. This would give children a reason to go to school and would help them learn without suffering from hunger in the classroom. If projects such as the Integrated Community Development Fund could be scaled up to a country wide project, Bolivia would benefit from not only its building of community infrastructures, but they could also benefit from the training of the project about community development and economic opportunities in Bolivia. Also, with organizations such as PCI that provide school meals, malnutrition rates can decrease. Bolivia is a developing country rich with natural resources, these natural resources can be used to feed the children and ultimately fuel Bolivia’s future. If students can be provided a school lunch made from food grown by farmers in the community, the students will be energized and motivated to attend school. These students will be educated and could help build Bolivia’s economy and infrastructure to make food more accessible, and ultimately improve food security and decrease malnutrition in Bolivia.

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