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Brazil, Factor 11: Malnutrition

Brazil is a very diverse country in nature and agriculture. Many key factors contribute to society to maintain stability. One very important factor that keeps communities stable is nutrition. Unfortunately, Brazil does not have adequate nutrition in families and children. Many factors influence this misfortune including education, income, living conditions, and land tenure (Meyer, 2010). A typical Brazilian family in 1990 was about 2-3 children (Marteletto, 2005). Over the last sixty years, the number of children in one family has been decreasing. One reason for this decrease is that “a large number of children in the family may lead not to a universal resource dilution but to improved opportunities for the late born” (Marteletto, 2005). Furthermore, it is harder to provide for a large family if food security is not present in that area. Food security is the ability to provide adequate food that is nutritious and accessible.

Brazilians have a very herbaceous diet. According to New Agriculturalist (2007), some of their agricultural diet includes soybeans, corn, wheat, rice, citrus, coffee, and sugarcane. Meat scarcity is common in Brazil. If meat is consumed, it will most likely be beef. Beef is 74.5% of the cattle population and dairy cows are 21.5% (Carvalho, 2002). Education is a very important component when dealing with malnutrition for many reasons. First, according to Victora, Vaughan, Kirkwood, Martines, Barcelos, (1986), nutritional level is influenced by father's educational level and experience. The mother's educational status also applies to nutritional condition however it is not as pertinent as the father's. Also, when associating malnutrition with education, literacy plays a large role. The father's literacy can influence the children's nutritional situation by impacting what they learn in the home.

Health care in Brazil is accessible to everyone and is divided into two systems: private and public. (Lourdes Serpa, 2005). Brazilians who have a higher income and who are more wealthy have the option for private health care which is cost effective, however, the government then reimburses (Brazil The Health Care System, 2004). The private system is typically better than the public system. The private system includes a shorter waiting period and better care. About 20% of the Brazilian population practice the private option. For those who cannot afford health care, the Brazilian government provides free assistance. Citizens receive doctors' fees, surgery, prescriptions, and lab fees at no cost (Healthcare in Brazil - International Living Countries (2017).

The typical farm size in Brazil varies. In southern Brazil, there is an average of 92 hectares. About sixty-six percent of all other farms have around 100 hectares (Brazil, 2010). One important aspect of land use is how highly concentrated Brazil's lands are. In Brazil, the percentage of farms over 1,000 hectares is roughly one percent (Brazil, 2010). The makeup of farms is very diverse throughout Brazil. In the northeastern parts of Brazil, the farms are smaller and there is a vast number of them. In the southern part of the country, the farms are traditional and family based (Helfand et al., 2015). There are a wide variety of crops grown in Brazil such as: cotton, rice, bean, maize, wheat, sugarcane, soybean and cassava. Brazil is the second leading producer of soybeans in the world (Meyer, 2010). Citrus crops such as oranges and bananas are also produced (New Agriculturalist, 2007). The animals raised and used in agricultural practices include dairy and beef cattle, sheep, goats and sometimes buffalo (Carvalho, 2002). Dairy cattle are typically used for the milk and beef cattle are typically raised in feedlots for meat consumption purposes.

Although many beef cattle are grown, much of the meat does not go straight to the family dinner plate. According to Carvalho (2002) “on average 65% of the beef goes to supermarkets, restaurants, hotels and industrial catering; 30% to butcher’s and 5% to special meat shops.”

Many agricultural practices in Brazil include child labor and migratory seasonal work. Child labor, according to New Agriculturalist (2007), is present so children can work for their families to increase their average family income. About 40% of ten to fourteen year olds are working intensive labor in order to support themselves and their families. Migratory seasonal work is more common for men. Husbands and fathers will leave their families throughout the year mainly to earn money for food and survival. About 27% of women are taking over the man's job in the house while they are out working. Women not only keep up with their own responsibilities and housework, but they also head the house and take care of the outdoor work typically complete by men (New Agriculturalist, 2007). Subsistence farming is also very common. Farmers plant crops on small areas which is only enough to provide for themselves and their families.

Just as in other countries, Brazilians face many barriers to improving their agricultural production. According to New Agriculturalist (2007) Brazil is having a hard time developing because of land reform and agribusiness occurring at the same time. As agricultural businesses try to begin, there is conflict over the land and the protection of the land. People cannot agree on a common solution so that businesses can strive to decrease poverty, and people are content with the appropriate use of the land. There are many struggles in Brazil with employment and living wage. Poverty is one important factor that has a negative impact. About 30 million Brazilians or 80% of the population lives in poverty. This affects agricultural production because many people do not have the money or finances to run a farm or operation. To purchase equipment and products can be costly and some people cannot afford to balance a home, education, and business at once (Carvalho, 2002). “Around 32,000,000 people were below the poverty line in 1993” (New Agriculturalist, 2007). Another agricultural issue which invades and disrupts production is deforestation. Deforestation occurs to clear land for farming; however, at the same time the cutting of trees is disturbing native habitats (Meyer, 2010).

Some barriers to food markets are poverty, and subsistence farming which is mainly used for more family support. One issue with food markets is that some families do not have the money to grow crops and market those crops. The personal farming crops are used only to support one family in some cases. Barriers to adequate nutrition include non-piped, clean water in households, inadequate land space to grow crops, and available money to purchase from local farmers. Wages are not sufficient for a large family to stay healthy (Victora et al., 1986). Income and living conditions affect malnutrition because most of the Brazilian population is impoverished. In Brazil, depending on family background and living locations, a child can easily be affected. Studies show that children who live on large ranches are more prevalent to wasting, stunting, and low weight. Children who complete laborious work and live in a more rural area show that they are more malnourished than the landowners. Children of sharecroppers have an intermediate level of nourishment (Victora et al., 1986). Land tenure inequality is also a very common issue in Brazil that strongly impacts health and wealth. Due to the unequal sharing of land, many activist groups form and voice their opinion through the Landless Rural Workers Movement (MST). The MST speaks out against Brazilian agribusinesses because those businesses are competing the most for available land (New Agriculturalist, 2007).

Malnutrition can be determined by many lifestyle factors. Parental education, living conditions, family size, origin and ethnicity of the family, and available land and space. It is important to have proper medical care as well. Many cases of insufficient nutrition include infection and disease, which are not properly treated. The typical family can be affected by health issues and concerns.

Children are facing hunger and in some cases obesity; however, the status and trend of malnutrition in Brazil is improving (Buekens, 2013). Stunting and wasting are very common in malnourished children. All in all, proper access to clean water, financial stability, education, child labor, land differences and illnesses affect malnutrition in Brazil.

There are many local projects in Brazil which are beneficial. First, one local project in Brazil that could be scaled up successfully is diet. In reference to (Brazil The Health Care System, 2004) a new Brazilian diet has improved nutrition levels. Poultry raising has become more popular and it is cheaper than other meats. Chickens make affordable meat and eggs are an excellent source of protein. In the Amazon region, it is very common for communities to consume many fish with their typical vegetables. Second, education is being promoted for children with low income families by being offered and provided free lunches. Free meals resulted in a 94% enrollment rate in children in grades one through eight (Heng, Heermann, Samaranayake, & Sath).

Trade is a very important factor to economics in Brazil which can impact malnutrition levels. The United States takes part in a mutual trade investment and agreement to enhance cooperation which was signed in 2011. Brazil provided the United States with \$3.3 billion dollars in agricultural products which include; coffee, fruits and vegetable juices, cane sugar, raw meats, and tobacco (Brazil, 2016). In comparison to American trade, Brazil is the United States 14th largest goods trading partner. The total cost of goods and services between Brazil and the United States in 2016 was \$88.2 billion. "Sales of services in Brazil by majority U.S.-owned affiliates were \$47.0 billion in 2014, while sales of services in the United States by majority Brazil-owned firms were \$2.0 billion." In comparison to the world, Brazil is the 21st largest export trade country (Simoes). The top exports from Brazil to the rest of the world are soybeans, iron ore, sugar, and poultry meat.

Technological advances are booming all over the world. Brazil is involved in the acronym "BRIC" which stands for Brazil, Russia, India and China. These four countries constitute the world's fastest growing economies. These advancements can help with Brazilian technology and possibly provide an educational source on nutritional value. Technology growth can assist in introducing new agricultural methods and practices (Consular Affairs). Proper technology can also educate communities on farmland usage, deforestation and proper growing conditions. With access to the internet, Brazilian farmers can communicate with other farmers throughout the world. Every area provides different struggles through agricultural operations. Methods such as precision agriculture and worldwide farming focus on better crop yields and capitalizing on a specific climate. Commodity stocks are also a useful way to connect with Brazil through technology and agriculture. Due to technology and the benefit of reaching out to other countries, Brazil's economy is improving.

There are many potential ways to improve food security for the typical family in Brazil. First, influence from other countries can benefit Brazilian communities. Wealthier countries, organizations and mission trips can help by sending more food through food drives. Also, we can provide appropriate medication, more vitamins, and other health improvements. A fresh and clean water source can be provided to ensure hydration. Tools such as shovels, hoes or tractors can increase their labor and decrease working time. The national government can also work out the issue with land tenure and make a more equal system for property access. A typical family can use the tools and resources from neighboring countries to benefit their lifestyle, health, and country's future.

To conclude, Brazil is a very interesting country. Stability is just as important as nutrition in any situation. Malnutrition in Brazil is improving every day. Although other factors such as education, income, living conditions and land tenure persist, common solutions can one day be found.

Advancements through technology and agricultural methods can lead to a more knowledgeable community. The Brazilian economy can improve and bring impoverished families above the poverty line. Children can stay in school and eat healthier through local projects. The common barriers to agricultural success can be overcome. By 2050, the world population will be almost 9 billion people. It is our task to feed the growing world. It takes one country at a time. To increase the agricultural production in Brazil and to decrease malnutrition will benefit our whole world in the next decade. Proper nutrition leads to healthier lives and healthier lives lead to a more promising future.

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