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Central African Republic: Reaping the Benefits from Beef Production

Since the age of six my best friend and I have enjoyed racing each other in a local one mile race. As we have grown, we have begun racing often through school track and cross country. Through every practice and meet we pushed each other to run faster, harder and stronger. This was until my best friend received the diagnosis that she was severely anemic from an iron deficiency. This condition was caused by a lack of healthy red blood cells which deliver oxygen to the body's tissues ("Iron Deficiency Anemia"). Lily was unable to perform well in cross country and track, and felt the effects while at school and work. I was impacted by Lily's iron deficiency anemia because I had lost my running buddy. My eyes were opened to the issues of malnutrition. I had to ask myself, "How could someone who had the availability, quantity and quality of food still face problems with malnutrition? If this was an issue in my area, then what challenges and to what severity were cases in other countries, such as the Central African Republic?"

The Central African Republic is a landlocked country in the middle of Africa. Comparable to France in size, the Central African Republic borders Chad, Sudan and the Democratic Republic of the Congo. The capital, Bangi, is located near the Unbangi River (Giles-Vernick et al.). The country has a diverse climate including a moist climate and forested zone in the south. From March through October, the country experiences a rainy season with heavy rain and fog. During that time of year, the temperature ranges from 66 to 86 degrees. During the dry season, October through March, temperatures fluctuate between 64 and 104 degrees (Giles-Vernick et al.).

The country's 4.7 million people operate under a president that leads The National Assembly and The Economic and Regional Council. The president is elected for a six-year term through the use of a universal direct suffrage voting system. Additional leadership includes ministers who are similar to the president, and "chiefs" who operate within the villages ("Central African Republic"). Within the country, French and Sango are the two official languages, and 51% of the people are Christian, 29% are Roman Catholic, 10% have a traditional religion and 10% are Muslim (Giles-Vernick et al.).

Culturally, both men and women play an important role in providing food and maintaining the household. Men make up the majority of the workforce and are often involved in heavier work in rural areas. Women are responsible for producing, preparing and in some families, growing crops and selling food in markets ("Central African Republic "). In a domestic unit, averaging five family members, families live in homes made of grass, mud, clay bricks and sometimes sheet metal. It is not uncommon for homes to have finished floors, instead the ground is pounded to make a floor ("Central African Republic "). Fortunately, the majority of both the urban and rural population have access to water supply. Other infrastructure, such as roads, receive little maintenance and make it difficult for rural villages to be reached. As a result, most villages have become as self-sufficient as possible. Many small farmers grow crops to provide for their families and sell at local markets. Agriculture plays a large role in the economy of the Central African Republic. According to brittanica.com, "Agriculture is the largest sector and the basis of the Central African economy, contributing half of the gross domestic product and occupying nearly four-fifths of the workforce; diamonds and timber also contribute to the economy." Commonly produced crops include cassava, corn, millet, sorghum, rice, squashes, peanuts, cotton and coffee beans. Livestock production

consists of cattle, sheep, goats, pigs, and poultry. Livestock are mostly raised for families to keep for themselves, not to sell (Giles-Vernick et al.).

Despite efforts to be self sufficient, the country faces issues producing enough food to feed the population. In 2017, 59.6% of those living in The Central African Republic were undernourished (“Central African Republic Nutrition Profile”). Civil conflict beginning in 2012 has spread throughout the country between about 20 different militia groups. It is thought that the groups are in conflict over land containing resources such as cattle routes and lands rich in diamonds, gold and uranium. The events have left different regions of the country with poor infrastructure, killed and injured civilians and a poor economy. As a result of the conflict, nearly 75 percent of the country’s population is in poverty (“Violence in the Central African Republic ”). These poverty levels directly affect families and explain why it is difficult to access and purchase food. According to UNICEF, “The number of people displaced by the violence is near levels seen at the peak of the violence in 2014. Many families lack reliable access to food.” Children and adults alike are facing the effects of malnutrition. Also, 46% of women who are of reproductive age have anaemia (“Central African Republic Nutrition Profile”).

With a large amount of conflict and an uncertain government, self sufficiency within families and villages is crucial in providing food and resources. Developing strategies for families and villages to produce their own crops and raise their own livestock will benefit the economy, reduce poverty level and increase food supply and excess. An increase in beef production would be an excellent way to provide a large amount of protein and other nutrients to the population. One calf weighing 1,200 pounds would yield about a 750 pound carcass, providing about 490 pounds of boneless trimmed meat (“How Much Meat Can You Expect from a Fed Steer?”). Beef is known for being an excellent source of protein and nutrients. A 3.5 ounce of ground beef contains 2.7 mg iron, which is 15% of the recommended daily value (Spritzler). As beef is high in iron, it combats anemia iron deficiencies, which 46% of women at reproductive age have in the Central African Republic have (“Central African Republic Nutrition Profile”).

Raising cattle in the Central African Republic has some challenges. Firstly, cattle require and consume lots of natural resources such as water, land space, grass and feed. Those who take care of these cattle would have to have a semi nomadic lifestyle, moving around as the cattle graze the land. Furthermore, the country’s conflict in recent years has negatively impacted cattle farmers. Cattle theft and damaged property were a result of the unrest between civilian groups. During the conflict, people were forced to move locations, making it hard for them to continue to farm and raise livestock. According to The United States Agency for International Development (USAID), there are approximately 600,000 internally displaced people in the Central African Republic. As a result, the USAID and other organizations have had to import food to those who have been affected (“Sustainable Agriculture in the Central African Republic ”). The country does still struggle with violence and lack of government control, making it important for families to provide for themselves and their communities. Fortunately, the conflict had been less severe in recent years and several organizations have made an effort to support producers.

From November of 2015 to July 2017, a program funded by the European Union, the Food and Agriculture Organization of the United Nations (FAO), helped livestock producers vaccinate their cattle, sheep and goats. The events were broadcasted on the radio to inform producers about the opportunity, time, location and importance of livestock vaccination. For cattle, a “vaccination park” was set up where veterinary auxiliaries vaccinated cattle. One of the project’s leaders explained that five vets were able to vaccinate up to 1,000 cattle in a day. These organizations also worked to improve veterinary clinics, slaughterhouses and train butchers in hopes of benefiting the country's livestock-meat sector. This

program demonstrates how organizations and producers can come together in the midst of political unrest with the common goal of raising healthier and more sustainable livestock (“Livestock Vaccination Campaigns”).

If organizations continue to help producers receive humanitarian assistance and grow their herd, it will benefit the entire country. The article, *Sustainable Agriculture in the Central African Republic*, states that “The Food and Agriculture Organization of the United Nations (FAO) has adopted another strategy to help the government reach peace and grow sustainable agriculture in the Central African Republic. Their report states that increasing food security will increase stability in the country. By increasing stability, they hope to help the government find a peaceful solution to the conflict. Beef production would improve the economy, family self-sufficiency, political stability and iron anemia. My friend Lily saw the benefits from incorporating more beef in her daily diet, and I know the citizens of Central African Republic would too.

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