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Agriculture in Development: Food Security in an Increased Demand

In an interview earlier this year, Nicaraguan President Daniel Ortega said, “The drama of poor nations, where every five seconds a child dies of hunger and malnutrition, doesn’t make the news. [But] When they limit sales of rice in the United States, that is news.” I would have to agree with President Ortega. Today, there are millions dying from starvation, diarrhea and malnutrition. According to www.feedingminds.org, 790 million people do not have enough food to meet their daily nutritional needs, but what are we doing to stop this?

For those of us living in the United States of America it is hard to truly understand the impact of starvation and malnutrition. It is especially hard to have a true understanding of this most serious world problem while living in a rural community in Nebraska and being raised on a farm that is involved in food production each and every day. I can relate to proper nutrients when it comes to feeding livestock for optimum growth and performance or converting grains and forage feeds into meat and milk. Many Americans do not have a basic understanding of how vital proper nutrition and adequate food supply is to the physical well being of citizens of a country as well as the economic well being of a country. Hunger and malnutrition are serious problems in many countries in the world with long-term effects on the existence of human life as well as a serious impact on the ability of a country’s government to maintain a viable economy.

With the world population on the verge of 6.7 billion, there has been a significant increase in demand for food across the globe. The average American farmer produces enough food to feed one hundred thirty people, as stated on www.wheatworld.org. Unfortunately, there is only thirty-five percent of the population employed in agriculture, compared to forty-two percent in 1996. Fuel prices have also been affecting the world economy. Some say that the American government is choosing a cheap fuel policy over an affordable food policy for its citizens. So what does this mean for mankind? It means that the poor people are getting further into debt and everyone is cutting the amount of money that they spend any way possible.

The world population has and will continue to grow as throughout history, but in the future it will be accelerated in its growth rate. Much of this population growth will be in countries that are already having difficulty with feeding its population. It is estimated that one out of five people in these developing countries will not meet their daily basic nutritional needs (http://www.feedingminds.org/level3/sec_level_en.htm 8/31/2008). Even though many countries have made progress in the war against hunger and poverty, much work still is to be completed.

When one thinks of poor countries, one immediately thinks of those in Africa and Asia. What about other areas? Are they experiencing the same struggles that Africa and Asia are trying to deal with? The answer is yes. Even though we may not see it at all times, there are countries in the same position. The travel websites on the internet market Costa Rica as the perfect place to have a luxury vacation, with its resorts and beaches, but like any other country, it has its problems. As stated in GRAIN’s article, “Getting Out of the Food Crisis”, a whole class of “new poor” has emerged. This paper will travel through the typical family and farm in Costa Rica, what education can do to improve the quality of the food produced, and how that, in turn, will affect the lives of Central American families.

The typical family in Costa Rica consists of four to five members. The regular diet includes rice, beans, bread, tortillas, fruit, and coffee. Green or ripe plantains are a staple food. The country boasts about its ninety-five percent literacy rate. Costa Rica provides free education and demands that its residents attend school until at least the ninth grade, but there are massive amounts of dropouts after the mandatory grade level (http://www.1-costaricalink.com/costa_rica_information/education.htm 9/01/2008). The country has a 4.8% unemployment rate, the best in all of Central America. However, sixteen percent of the population still lives below the poverty line. Costa Rica is currently facing the second highest inflation rate in Central America. The average income per capita, in 2006, was US \$5,100 (www.state.gov/r/pa/ei/bgn/2019.htm 9/03/2008) with thirty-three percent being spent on food (<http://goliath.ecnext.com> 09/02/2008). A very small percentage of the population is farmers and sixty-one percent live in urban areas. Even though over half live in urban areas, one-third of the population is employed in agriculture. Costa Rica has several different sectors of agricultural producers. These include small, medium, large, and firm producers. The small producer has limited land and very low quality resources that are usually on hillsides and produce only for local markets and personal consumption. These producers' products consist of basic grains, pasture, and cattle. They are limited to technological advancements because of their lack of knowledge on the subject. The medium sized farmer produces coffee, milk, poultry, eggs, fruit and ornamental plants. Large producers are smaller firms that operate rice mills, sugar refineries, coffee processing plants and raise livestock, whereas larger firms specialize in bananas and pineapples. Costa Rica sells many products to the United States that are labeled as organic, but in truth, Costa Rica produces no truly organic products. There is a very high use of fungicides and pesticides with in the country. Coffee farmers are not highly aware environmentally and there is no government incentive to become more environmentally friendly. There are laws in Costa Rica concerning the environment, but so far the legislature has not enforced them (Pomareda and Murillo, 3). According to www.nationmaster.com, "Costa Rica leads the world in per capita exports of bananas, cavassa, melons, and pineapples to the United States. Unsurprisingly, they are also first in pesticide use." However, the orange and pineapple producers in the country use some type of organic standards; menthol bromide has been eliminated in the production of cantaloupe and watermelon, and the elimination of burning before the harvest of sugar cane. Also, the small farmers, and some of the medium farmers, cannot afford pesticides, or even seed and fertilizers, because prices have soared over the past few years. According to the World Bank, fertilizer prices have risen one hundred fifty percent in the past five years!

Head of the NGO Action Against Hunger's mission in Central America, Mayte Martin Serra stressed in a June 8, 2008 article, "poor food quality is a greater problem than access to food." As stated in the above paragraph, small farmers have a lack of knowledge in technological advancements and therefore may not produce a very high quality product. In the late twentieth century, low levels of productivity were partly brought on by a poorly educated work force, which limited the use of new technology. This is why agricultural extension programs offering education and advisory services to the small farmers for implementing technologies and practices from research and development areas are much needed in Costa Rica. Education, whether anyone realizes it or not, plays a significant role in the nutrition of people throughout the globe. Many parents have pulled their children out of school to pay for medical attention because they are not getting the proper nutrients. A large part of this is due to the fact that these small farmers do not know how to grow a safe and wholesome product. Then, because the families are paying for medical care, they have hardly any money left for food. Because of this, families are becoming worse off then they were before. Even larger farmers can be educated on pesticides and fungicides. Some of these chemicals, along with natural pesticides and fungicides are damaging the environment. Just like United States citizens, with environmentalists concerned that these

chemicals will seep into the underground reservoirs, the surrounding creeks, and eventually the ocean, Costa Ricans need to be educated on these topics. Those farmers that are burning prior to the harvest of sugar cane are releasing high levels of Carbon dioxide, a greenhouse gas, into the air. Greenhouse gases do not degrade the ozone, but rather trap heat from the sun and keep it in the atmosphere, which is a cause of global warming.

According to www.feedingminds.org:

“Nutritionally adequate food is fundamental for good health, growth and development... The strength of a nation depends on the strength of its people. When people are healthy, strong and well nourished, they have the energy, creativity, security and courage to work and learn, solve problems and live their daily lives with dignity and joy, ultimately advancing civilization to new heights. Well-fed citizens are productive citizens who contribute to their society. People who are not well nourished do not have the energy to work or to learn and often need constant medical care. The costs of hunger in term of lost potential, health care and possible civil unrest can be staggering for a society.”

The use of technology in Costa Rica has aided in the countries battle with hunger and quality of life. One might ask why do they not use more technology in the production, processing and storage of the countries food supply. In order for a country to use the latest technology available in agriculture, a country must have either government or private funds that will finance the purchase and implementation of that technology. Besides the financial aspect, the implementations of the technology require education or an education structure that will assist and educate all involved in the usage of the new production technology. This relates back to a strong government and the education policies of the country and the education level of the citizens involved in the production phase of agriculture and food production. In the United States, we have a very strong education system that involves intuitions like Land Grant Universities that conduct research and provide education not only to college students but also to producers. We have a private business sector that is used to make financial investments in new technology and research, which historically have provided financial rewards for the investors. This infrastructure in not strongly rooted in the Costa Rican Government and private sector with the intended outcome to be good for all involved in the country’s food production, distribution and storage.

I believe that the Costa Rican government should set up additional education opportunities for the smaller, family oriented farms. With education as the subject of new age farming methods and technology, all farms can be “up to speed” and competitive. According to www.infocostarica.com, libraries are the only way for adults to learn in rural areas, and there is a substantial lack of both buildings for libraries and materials to put in the buildings. If the producers were educated, it may not resolve the situation right away, but it would make the lower income citizens become healthier, and improve the livelihood of the population. It will cost money at first, but with the healthier and more abundant food, it will pay off in the future. With that thought in mind, another possible help for the educational infrastructure would be to utilize a system similar to the United State Land Grant Universities that conduct research and provide education not only to college students but to producers.

Asia and Africa are not the only regions with “food crisis” occurring. At www.feedingminds.com, there is a sentence that affects me. It reads, “No country is free from hunger and malnutrition.” I could not agree with this statement any more. We may not see the hungry or the ill nourished, but that does not mean that is does not exist. It may not always be about the lack of food, although it is most of the time. In addition, we need to focus on the quality of the food that is put onto the table. It is vital that we, as a human race, be able to sustain

a safe and wholesome food supply every day of the year for every citizen of our global community. I know that this thought and idea are that of a perfect, ideal world at the present time, but I feel that it is immanent that we as citizens of our global community strive for this goal of perfection. In many cases, the lack of education or not having access to the latest technology is not the reason for famine and starvation. It is people and policies developed by people and their government. Many times these people or leaders and their government use the manipulation of food as a means to make their point or to gain power and control of a region and its citizens. Perhaps as well as education and utilization of agricultural technology as a platform to improve the safety and wholesomeness of a country's food supply on a daily basis, we need to also address tolerance education and to accept each person, their culture and diversity. Historically, civil unrest in a country and its form of government have lead to war and persecution of many of the world's poorest and weakest people. With strengthening governments and world peace, will come the ability of many countries to be able to focus on feeding its people instead of conflict. In this paper I have discussed the typical family and farm in Costa Rica, what education can do to improve the quality of the food produced, and how that, in turn, will affect the lives of Central American families.

As I conducted the research for this paper, it brought many matters to my attention, and provided me with the opportunity to learn and gain knowledge about the issues that many citizens and leaders of our world face daily. I feel blessed to have the fortune to live in the United States of America. As a farm girl from Nebraska, that grew up with livestock and that produces meat to feed America as well as the world, we always have a freezer full of home raised meat and frozen and canned produce from the garden. In addition we can be at a Super Market to access an abundance of fresh wholesome safe foods from all over the world. Will this always be the case for Americans? What makes our country immune to the higher percentages of starvation and malnourishment found in other countries? What role do I need to take as to assure that our country stays strong and progresses as global citizens to assist those in need in our country and others to abolish starvation?

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