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Peru: Improving the Quality of Life and Agriculture Practices Through Education

As a first world nation, our immediate thoughts of international travel would commonly be the relaxing and grand vacation countries such as Costa Rica, Brazil, and Puerto Rico. When you think about Brazil, maybe you cannot help but think about the Olympic Games that took place this past summer. Costa Rica might ring a bell with their famous saying, "¡Pura Vida!", meaning "Pure Life". What about Peru? With Peru, your interest could be drawn to the fascinating ancient civilization of Machu Picchu surrounded by the beautiful Andes Mountains. When it comes to thinking of countries outside of the United States, a large number of people fail to realize that it is not all a beautiful tourist destination like the brochures advertise. After all, challenges do exist. The literal disappearance of Machu Picchu's Incan civilization is the greatest representation of the struggles facing health and wellbeing of residents in Peru.

In this essay, I am going to identify the average family in Peru and the common struggles they face. To these families, Peru is not the great tourist destination that we see. Families face larger challenges, and we face greater problems in helping them achieve a greater lifestyle. I will share the story of a native man who gravitated to his education, although he faced the common problems of life in Peru. I am also going to identify how education can help the people of Peru overcome various issues they face. Issues such as health education and agriculture education.

A few months ago, my global ag class was lucky enough to have a speaker from Peru come and speak about his native country's agriculture. Richard was a college graduate who had found value in his schooling throughout his younger years of life. This man defied all odds at a young age when his family was too poor to afford his education. Richard came from a common subsistence farm in the highlands of Peru. Like most common families, he lived in a one-room house with his family which consisted of 5 people. Fifty-seven percent of families living in poverty reported these kinds of living conditions. (Brierley). A household usually consists of two parents, two children, and one close relative or godparent. Similar to other families, Richard's farm produced the bare minimum, including potatoes and guinea pigs. That is correct, the common diet for the citizens in rural communities of Peru is strictly potatoes and guinea pigs. However, there was one thing that made Richard stand out: persistence. Richard had become a young entrepreneur to pay for his own schooling, starting several businesses around town. One business consisted of selling sweetened products in the city. Each day after school, he would go tend to those businesses to support himself financially. He would then return home at the end of the night to help his family. Unlike the average citizen, Richard went on from primary school, to secondary school, continued through college, and graduated with a degree in agronomy. Richard then returned to his native land in hopes of educating families like his so that they could step out and reach above the poverty line in Peru.

Just like Richard, I think it is important to be persistent in the education of not just young students, but the adults of Peru as well. We have a key opportunity to educate these communities not only on agricultural practices but also on sanitation and healthy living styles. Due to the rural communities' locations in the Andes Mountains, there is little to no access to healthcare for the families living in the highlands. Their living situations do not benefit their health either. Richard had explained during his presentation about a project he has been conducting to help put shelving units into homes. Something that seems so simple to us as Americans, is a foreign concept to the poverty stricken families of Peru. A simple thing like shelves will improve their health because they no longer have their food sitting on the ground, where their guinea pigs run free. Living in a one-room house with 5 people also puts each family member at an increased rate for transmissible disease. The mortality rates of the region can be traced back to diseases like malaria and

tuberculosis (Brierley). Health education is important for the rural communities so that they can learn basic sanitation to protect themselves from disease, and how to notice the signs and symptoms of such diseases. If we teach them such things, they will know the early onset of a disease, possibly lowering the mortality rate in the Andes Mountains. Along with sanitation, we can use agriculture education to teach the importance of a balanced diet. Right now, a typical diet in the highlands includes plenty of starch and little protein from the guinea pigs. West of the Andes, farmers are learning to grow more vegetables, which will be a key factor in a balanced diet for the people of Peru.

Most poverty stricken farmers and their families live in the highlands of the Andes Mountains, where they struggle to make use of highly-sloped areas into productive farmland. Most farms in the mountains are 5 hectares or less in size, and the fields are the size of an average American living room. If we jump over to the coastal region just west of the Andes, you would find an agriculturally rich area of Peru. Although this area only constitutes 4% of Peru's total land, it produces 50% of the gross agricultural product for Peru (New Agriculturists 2004) What is the difference? This area is a flatland, with stable weather year round and elaborate irrigation systems running from rivers to the farmland. The highlands of the Andes are just the opposite. Those living in the highlands have to use a practice called terrace farming due to the uneven ground. This factor presents a challenge with Peru's variable weather and little education available on the topic of irrigation. Two of these factors serve as a barrier to improving agriculture production, but a lot of the western region's success is due to their irrigation systems, which is something we can change for the rural communities. We can educate the farmers on the installment, use, and repair of an irrigation system to help improve the production of agriculture in the highlands. If we educate the indigenous people on irrigation systems, this would enable them to take a new step into modern agriculture. (New Agriculturist 2004). Farmers from the west side of the Andes can run irrigation systems from rivers to their farmland, whereas subsistence farmers in the highlands don't have the luxury of a river capable of irrigating their crops. Highland farmers, however, have the opportunity to run irrigation systems from permanent snow caps of the mountains to their fields (Mitchell). The people of Peru are noticing the difference of their two types of agriculture. Carolina Trivelli, current Minister of Social Inclusion in Peru said, "The biggest social challenge today is to develop small-scale agriculture in Peru. This puts our country in a state of alert, because we have to convert subsistence farming into commercial agriculture." (Newton). Another plan of action that is being taken is the education of cross-breeding genetics. The people of Peru are looking into crossbreeding their guinea pigs so they are better adapted to the undesirable weather of frosts and droughts all in one year. (New Agriculturists 2012) The next step in this process would be educating the people of rural communities so that they have access to more productive breeds. More productive breeds will have more benefit to the people of Peru and will allow growth in their agricultural practices, as well as the citizen's health.

One of the major barriers in improving agriculture productivity in Peru, is education itself. Most students are forced to drop out of primary school because they are needed to tend to the farm or because of financial issues within the home. On average, 25% of students finish primary school, and only half of the students that finish primary school go on to secondary school (Culture of Peru). While I was sharing my insights about this project with my global ag class, I was asked this question: "How will we promote education when they (the students) have to stay back to farm?" This question resonated with me because it brought up a valid point. How could we educate them about farming, when they have to be in the fields farming? Kinesthetic learning, or hands on learning, could be a solution to the proposed problem. It has been recorded that 50% of all students fall into this learning category, and 40% of the remaining students are visual learners (Tyne). Visual and hands-on learning could be the key to education in Peru, to compromise the needs of the people. As an FFA officer, I had the opportunity to organize an ag literacy program for our middle school students. The program consisted of four nights; each with a different them such as animal science and food processing. A goal with our program was to make it a hands-on experience, so that the students would really engage in the learning process. The students had the opportunity to learn about dairy science while watching a dairy cow get milked. They learned about floral

design while making their own arrangements. Just like the students who attended our ag literacy program, the people of Peru can watch and visualize what is happening in the field. Then have the opportunity to learn by working side-by-side with those proficient in the topic. It has never been a rule that learning has to be in a classroom. I agree with the saying of "meeting people where they are at", and if the people of Peru need to tend to their fields, what better classroom then their fields? Jason Wetzler, a past National FFA Officer, talked about his most valuable learning experiences in his retiring address, "None of the learning that occurred to me while earning my car happened inside of a classroom. If learning doesn't have to take place inside of a classroom, and some human beings don't ever get the opportunity to be inside of a classroom, but they still learn, then one thing must be true, everyone is a teacher." ("Teachers Change Lives").

Although Peru is on an economic rise, the rural communities in the highlands are neglected of government support because of their isolation in the Andes Mountains (Brierley). I believe a key step in the process of educating these communities is gaining government support for our movement. In order to gain support for our cause, it is important to close the gap between rural communities and the people of the highlands. Ordinary citizens can and will carry an important role in the communication between government officials and the people of the highlands. The people who can communicate their needs in the best way are the people who have had to develop and adapt to the farming conditions in the highlands. We can also gain support by showing the government the payoff of what education can do; lower their poverty rates, increase their gross agricultural production, and increase their food security. Food security is divided into three equal sections: quality, quantity, and availability. With agriculture and health education, we can help improve each category. We can help improve the quality of their food by installing Richard's idea of shelves, to ensure that the people's food is sanitary. We can improve the quantity of their food by helping teach them modern day agricultural practices, like irrigation systems. Just like the west side of the Andes has seen improvement in their crop production, farmers of the highlands could see benefit with proper irrigation. Availability goes hand in hand with quantity; the more you produce, the more that will be available. It is important to help raise yields of the rural communities, so that they can produce more than just enough to feed their families. This will help provide for the availability category, as they will have enough to eat, and enough to sell. If they have enough to eat, and an abundance to sell, they are making profit and more mouths are getting fed. This would help lead the poverty stricken farmers to earn a living wage to support their families and farms as well. Entrepreneurship for the farmers leads to an economy on the rise for the country. The country would show exponential growth in several areas, like sustainable agriculture, healthier practices, and the ability to feed the poverty stricken and a growth in profit and their economy.

During Richard's earlier years of life, he served as an activator. He did not take no as an answer. He pushed through because of something that he was passionate about. Education played a major role in Richard's life, and he still serves as an activator in his community. Richard makes it his goal to pass on his experience to others and educate farmers in his community. Richard has not stopped at getting one college degree. He is returning to school in the fall to get a second degree focusing on the needs of water and sanitation in hopes to return to Peru with better knowledge. Like Richard, I want to use my college degree to help educate others. Like my focus of this paper, I intend to study agriculture education, so I can pursue a career like Richard's. Peru's government has an opportunity to help develop their rural communities just like they have in their bigger cities of the country. Jason Wetzler said, "Everyone is a teacher." Americans are two steps ahead of the game in agriculture, and we have knowledge that others are seeking. It is our job to educate, even if we do not carry a teaching certificate. If we are proficient in our fields, lets help others be proficient in their fields and help feed the 9 billion people by 2050. Food security is what is needed for the rural farmers of Peru, and with education we can fuel each of the three categories: quality, quantity, and availability. If we enable rural communities with education, they will soon be able to educate their children and neighbors. Their children and neighbors will educate their

communities and so on. The ripple effect. As Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world."

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