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Armenia: Using Agricultural Education to Produce a Better Quality and Quantity of Food

Television is a big part of American culture. We use it to portray ideal lifestyles about our community that would make it seem as if we are problem free. In an ideal American family, as portrayed on television, the average size of a family is five, including the mother and the father. The father is the provider and bread winner for that family. The mother stays home and is a house-wife tending for the house and the children while the father is at work. In addition to preparing fresh meals every night, the mother is also able to keep up her personal appearance, by exercising daily. They are in good health and do not have to worry about their food being fresh because they can buy it at their local market and/ or community garden. Money never becomes an issue because they have plenty of it, which is demonstrated by their spacious four bedroom home in the suburbs which fits their comfy lifestyle. Many people find this image problematic because lifestyles like these are not realities. They are instead idolized images and fantasies about how life is supposed to go- but as we know it, life, never goes as planned.

The Armenian lifestyle cannot compare to the ideal American family. The average Armenian household is larger than the typical five person American household. With Armenian homes exceeding their capacity in terms of people, it requires more of, everything. Extra money is necessary because without enough money, people go hungry. In many cases the mother is the head of the household and it is her responsible to support the children. This is a problem because, according to Rural Poverty Portal, "many of the households run by women are among the poorest".

Many of the imports that come into Armenia are produce because the country does not produce enough food to be self-sufficient. According to ATG, "eighty percent of Armenia's wheat was shipped in from other republics". This means that the country only produces twenty percent of its actual requirements. Along with produce, the country also imports "natural gas, petroleum, tobacco, products, and foodstuff". The country receives imports from Russia, China, Ukraine, Turkey, Germany and Iran. The country's major exports include "pig iron, unwrought copper, nonferrous metals, diamonds, mineral products, food and energy". The export partners are Germany, Russia, U.S., Bulgaria, Georgia (country), Netherlands, Belgium and Canada. The country is currently five billion dollars in debt to other countries. The current exchange rate is about 374.29 drams (Armenian currency) per U.S dollar. As the U.S. dollar value decreases so will the exchange rate in other countries.

The country of Armenia is smaller than the state of Maryland in the United States. Like Maryland, Armenia has a large mountain that exceeds three thousand feet. The lowest elevation is sea level. In Maryland, about a 16% of its land mass is covered by water, but in Armenia only about 5% of the land is covered by water. The majority of this 5% comes from Lake Seven, centered in the middle of the country. This geological difference may be one reason why more trade occurs in Maryland. Aside from Maryland being part of the US, it has more access to water than Armenia. According to Netstate.com, "agriculture accounts for about 60% of the land use in Maryland" but in contrast, according to the University of Essex, Armenia utilizes only "47% for sustainable agriculture". Most of the money that comes into Armenia is from the rocks and minerals but in Maryland, the largest income comes from its greenhouse and nursery products. Though alike in size, Maryland and Armenia share very different sources of income and that greatly sets the two lands apart.

Armenia was formerly known as Armenia Soviet Socialist Republic and is one of the smallest and most densely populated countries in Europe. Since then the country has become a republic, it now follows orders from a constitution adopted in July 1995. The population is homogeneous with 97% of the country

being Armenian. Armenians pride themselves on being the first country to formerly adopt Christianity. The country gained independence from the Soviet Union in September 1991. Following independence, many of the resources that the Soviet Union gave them were terminated. According to Armenia Technology Group, "the break up of the Soviet Union at the end of 1991 left Armenia scrambling to feed itself." Without the Soviet Union's direction, much of the country's access to materials and tools needed to farm were gone. According to Armenia Nutrition Profile, when the Soviet Union ruled, Armenia had about 600 plots of land. After independence the plots were broken into about 282,000 acres of land.

The average farm size is about three acres. The University of Essex says that the country is a large grower of tree fruits such as "apricots, grape, peaches, apples, plums, pears, pomegranates, quince, figs, walnuts and other fruit". They also grow vegetables such as "tomato, pepper, eggplant, cabbage, potato, cucumber, carrot, pumpkin, beans and etc". With a long list of fruits and vegetables one would assume that the country is not starving. This is not the case because of disorganization and confusion. Many of the fruits and vegetables are not accessible to those in need because of transportation difficulties. Therefore, the Armenian's do without access to fresh produce. The typical diet for people who can access food is: "rich in carbohydrates such as cereals, starchy roots and sweeteners; which provide more than two-thirds of the energy while the consumption of meat and fish is low".

The agricultural practices in Armenia are different from those in America. According to Country Sides, in Armenia, agricultural practices are carried out in valleys using the uneven terrain for the crops and the highest mountain for livestock grazing. Armenia is filled with many inactive volcanoes. Activities from these once active volcanoes leave nutrient deposits in the soil that allow them to be suitable for farming.

A major barrier that hinders a farmer's ability to improve agricultural productivity is the lack of modern technology. The majority of farmers that use outdated machinery can not justify buying a new piece of equipment for a three acre plot of land. They believe that it's a waste of money that could be used to pay for something else or invest in something more important. Another major barrier that affects productivity is lack of knowledge about the land. If farmers were more educated about the land they farmed, they could put together ideas and change the way people do things. A major barrier that affects ability to improve an adequate wage is the absence of money throughout the country as a whole. A company cannot hire someone new if they can barely afford to pay for the workers they already have.

Investing in education, training and extension for improved implementation of agricultural research and technology is essential for any developing country. Agricultural education is very important because it instructs people on the proper ways to efficiently manage and produce a working farm. The fact that the majority of the country has a literacy rate of almost 100%, does not exclude the country from needing further education in agriculture. Education is highly valued in Armenia and the average Armenian completes about 12 years of school. This is equivalent to the completion of secondary schooling and an extra year of post secondary education.

Health is also a big problem in Armenia because that many of the families cannot afford health care. According to the Central Intelligence Agency, "infant mortality at 30% remains high and the maternal mortality rate is 48 per 100,000 live births". These deaths occur because both mother and baby are not receiving the amount of vitamins and nutrients their bodies require. In the case of a farm in Armenia, the people are not properly taught how to manage the land. The land is neglected and therefore not used to its full capability. Currently, agricultural education is taken more seriously throughout the country. The World Bank is a big investor in the area of agricultural education.

The World Bank makes it a point to help the people learn that they could pass the knowledge on to others creating a more uniform educational knowledge about agriculture. Since the breakaway from the Soviet Union, the country now struggles with implementing effective agricultural education but will eventually

reach an effective method of agriculturally educating the masses. Agricultural education may not be a priority developing countries because there is little the money to pay for these programs. They may feel that such programs will only create more of a financial burden. Lake Sevan, the only fresh water reservoir in the country, is being harmfully impacted by ignorance and improper use of the water. Even though water scarcity does not greatly effect the Armenians (unless in time of drought), the water level continually drops because more water is taken from the lake and not enough is being returned by the water cycle.

According to The World-Factbook, agricultural education trends are improving gloabally. Since the break away from the Soviet Union, the country has been able to "reduce poverty, slash inflation, stabilize its currency, and privatize most small- and medium-sized enterprises". This factor is measured in economic growth. If the country's condition is improving its level of knowledge for agriculture, trade has to significantly improve also. These measurements indicate the situation is changing because in 2009 the country faced a 14% decrease in an economic growth but were able to recover 5% in 2010.

Resolving or even improving agricultural education in Armenia will increase the amount or quality of food for a farm family by creating more crops using the small area of land. The quality will also be improved by education. Armenians would learn what varieties of seeds create foods that taste better. For instance, learning what genetically modified genes would make sweet corn sweeter. Not only will it make the corn sweeter but it would create a larger quantity. Learning how to properly use the land more with sustainable methods that are healthier for the environment allow for increased food production. Learning what methods require fewer resources and preserve water and energy that could also be used for other purposes. Ag education would lead to economic development and poverty reduction. If you can learn how to make a plant more efficient enabling more people to eat, a market will be created that will assist in economic growth. This benefits smallholder farmers by building a more stable income.

Other major issues like climate change, population growth, water scarcity, etc will affect agricultural education. If not properly educated, the farmer could lose his herd or entire crop production. Natural disasters are also very important in impoverished countries because many people when trying to evacuate, are forced to abandon their herd of animals and the crop that they have been raising. This for a poor family means a lot because now not only are their house and its contents ruined, but also their farms are lost. Learning about agriculture could not only help save a developing country but it will give them the proper tools necessary to prevent further damage. The educated could look at old practices and figure out new and innovative ways of creating a structured plan to attack poverty in Armenia.

The best way to address agricultural education is to first try to understand what it is. The Armenians will not understand the importance of agricultural education unless they understand its potential outcome. Secondly, in order to create a sustained way of teaching it is necessary to have people that are willing to learn. The whole point of agricultural education and training is to assist those in need or in want of change. Without people wanting to improve there is not much that can be done. Teaching a person to do things is better than giving to them. If you give them the resources they need to survive, properly educated those farmers will be able to be self sufficient to create what is needed.

My suggestion for the Armenians is to properly learn how to use the land. If people are properly educated on how to use their land it will be easier for them to farm it. They have to learn the advantages and disadvantages farming mountainous area. In addition, the people need to be provided with recent technology. Neighboring farmers could set up a cooperation agreement so that they all share the financial burden and use of new machinery.

Overall, the problem in Armenia is its inability to produce enough food to create self- sufficiency. Education is desperately needed to allow farmers to produce quantity produce in a sustainable fashion.

Additionally, Armenia cannot produce enough food to sustain life without the assistance of other countries and other governmental agencies. Therefore, Agricultural Education is the key to help address and solve Armenia food insecurity!

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