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Jamaica, Factor 10: Sustainable Agriculture
Jamaica: The Building of Better Food

Jamaica

Jamaica is located in the Caribbean with a population of 2.8 million people. Jamaica's Gross Domestic Product is about 14 billion dollars. There is about 180,000,000 dollars spent on organizations. The climate is mostly high in Jamaica and this has a impact on crops. About twenty percent of that population is living in poverty, and that has increased in the last two years . Eighty-seven percent of Jamaica was polluted in 2015. There is 4,182 miles squared of land area in Jamaica, and to my knowledge it is being degraded and used incorrectly everyday. The tasks they are taking to make crops and plants is not good for the environment. Jamaica is in need of the proper tools and technology to make the area safe and to make the produce safe.

Subsistence families depend on the safety of the soil and the environment in order for their crops to thrive, but these things are not being handled properly for the families in Jamaica. Subsistence farmers are farmers that use agriculture in a way of only planting enough for them and their families. They rarely grow enough to sell in markets, but if they can grow an ample amount, the subsistence family can get income. It is a harsh way of living, but this is the life for many of the Jamaican people. There is major campaign in Jamaica called the "Eat What We Grow" campaign, while agriculture contributes to six percent of the Gross Domestic Product in Jamaica. Thirty percent of Jamaican laborers are agricultural workers. Many of the ill-health comes from poverty of the people, poverty of the medical departments, and poverty of the governments.

Basics of a Family

The average size Jamaican family size is about seven people, which includes a mom and dad with five children. Diets are something more difficult for subsistence farmers. To ensure that all households survive and get something to eat, they equally share and divide their crops. They typically eat animals and crops that they're raising. For example, they eat cow, sheep meat, goat, and other crops that they grow.. Poverty hunts the subsistence farm family deeper than the eye can actually see. The first suffrage is being hungry in class. Being hungry in class makes it harder for them to focus and pay attention.

The poverty can also develop into low self esteem. The children realize what they are wearing most likely does not compare to what someone is wearing. These things can only happen if you are lucky enough to even go to school. Many poor families can not afford the registration fee, therefore they can not afford to let their children go to school. Apparently their closest emergency rooms are overcrowded, and their staff seems to be frustrated. None of this is healthy. Ninety-five percent of the population has public healthcare. At least ten percent of the national budget should be spent on this healthcare. Most subsistence families do not really have access to healthcare, so they develop more infections and diseases if they can not be healed on their own.

Basics of a Farm

A typical Jamaican farm is about 140 acres and has the family members working on the land around the season. The main crops grown are bananas, root crops, coconuts ,coffee, cocoa, citrus, pimento, yams, vegetables, poultry, milk, crustaceans, and sugar cane being the most grown crop. Mollusks, goat, chicken, and cattle are the main livestock raised there. Their agricultural practices are to monocrop and

commercial farming. Monocropping is to allow one crop to reach its full maturity and to not introduce until that crop is done. Commercial farming is known as crash cropping. The crop is based on what is abundant in markets. The needs of farmers and their families is excluded in this process. Alex and Dorothy Twayman grow coffee in their 130 acre field. They only make about six dollars a day. If they are lucky, they can make thirty-six dollars a pound, They usually eat other foods that they grow. The food they purchase is from a market that they have to walk a long way to receive.

Barriers

Jamaican farmer's agricultural practices have disadvantages, which lead to barriers in improving agricultural productivity. In monocropping, the same plant keeps getting planted over and over again. Other crops are not getting rotated in. This causes diseases to build up in the soil. Commercial farming, which is not done by most subsistence farmers, causes water pollution. Subsistence farmers produce for their families and sometimes, but rarely, for local markets. If crops are not growing, it is getting harder for them to get money or food for a living wage. They can not gain access to a market because of how far it is, and they may not have enough money for the market to begin with. They are depending on their crops, and since diseases are building up in the soil, it can cause unhealthy food which affects the body negatively. Sometimes crops are growing, but they are unhealthy because of the soil and pest. This is just as bad as no crops growing. It can lead to human illnesses.

Affects of Sustainable Agriculture

Sustainable agriculture affects productivity of food, household income, and food availability in Jamaican subsistence farmers. It all basically ties in together. If you raise the livestock and crops in the correct way and use the proper techniques, it helps with food availability. If there is more food available, then there are more sells being made, and there is also less starvation. This brings in more household income and less human illnesses due to hunger. If sustainable agriculture is taken care of in the right way, it can change an ample amount of things. If sustainable agriculture is not taken care of in the right way it can lead to major problems. The soil and water that they need in order to live can be easily destructed and polluted, crops will be ruined, and diseases will begin to spread.

The Status of Sustainable Agriculture

Presently, the status of my factor is very weak because it is not being done in the correct way, as far as I can tell from my research. Their main two ways of producing crops comes with the most environmental-destructing disadvantages. Jamaicans, especially subsistence farmers, do not really have the major technology we do in the United States, so the food production is not as easy. The status can be changed simply by doing another agricultural practice. Bureau of Women's Affairs reported that "rural women in Jamaica receive only one percent of all agricultural credit and only five percent of all agricultural extension resources are directed to women." This shows that women farmers in Jamaica are not being treated as others. Women are very disadvantaged and this issue should change. The government most likely plays a big part in this role. I am sure that they can change the amount of money women get. All workers should be treated equally by the work they are doing.

The Environment

As I just stated, poor Jamaican farmers do not really have all the technology that the United States does. Sustainable Agriculture seems to be in trouble in Jamaica if it does not get acted upon. The imported number went down because they have perceived negative health concerns. Monocropping and commercial farming degrades the environment. These two practices are causing water pollution and soil pollution, as stated above. Monocropping can lead to human health issues. It was the reason many small

families lost their farms. Monocropping has also been recorded to lessen the amount of nutrients in the ground and to lessen the biodiversity of the crops being planted and produced.

Trends of Sustainable Agriculture

The trends for this factor are getting worse according to the chart that I perceived. The trends seemed to be measured by the produced, exported, and imported crops. It is also measured by pollution and by economic improvement. In the last eight years, imports to Jamaica have declined by seventy percent, so yes the situation is changing, but it is not changing in a positive way. The potential change for my family is negative. I would say this family is going to start having a harder time because the crops will not be producing like they should and the livestock is not being taken care of. The family depends on the crops, and with the trends of my factor, they will not be getting enough.

Resolving Sustainable Agriculture

If sustainable agriculture was improved in Jamaica, the amount of food produced would most likely rise tremendously. The quality of the produce would even become better as a factor of better sustainable agriculture because the soil would be so much more pure and free of diseases and pest. Now the family's well-being as a whole will rise. The whole environment would be better because the soil and water would have a smaller amount of pollution. The economy would also be great because of all the sells and one man's spending is another man's income. Farmers would have so much more money and food for their families because now everything is improving. The farmers would now be growing a surplus amount of crops that are improved in quality.

Affect of Major Issues

If any major issues occurred too severely, the production of live stock and crops would decrease. Now the wellbeing of my family is in harm because they can not get the necessities they need for life. Pollution and economic depletion are also factors. Decades ahead could lead more than a few people to financial discomfort. If no one is producing anything because of these major issues then no one has anything to spend. One man's spending is another man's income, so the cycle is broken. Aside from financial discomfort, the environment would also be in danger. If the major issues took a wrong turn and made a huge negative impact on sustainable agriculture for decades, the land would be horrible. Their agricultural practice only makes everything worse. The soil would have a small amount of nutrients. It would be full of diseases and other major issues. Pests would start to take over the crops and there would be less exports and imports.

Addressing the Issue

Based on my research, I see monocropping and commercial planting as the major problems in the area. It sounds good to the farmers there, but the disadvantages are too risky. Jamaicans have so many acres of land, and in the United States we have machines for that kind of land. With all of this land, they are only planting one crop at a time. Farmers need a new technique. Here in the United States, our most powerful technique is crop rotation. The USDA defines crop rotation as, "Growing various crops in the same field in a planned sequence. This sequence may involve growing high residue producing crops, such as corn grain or wheat in rotation with low residue producing crops such as soybeans or crops where crop residues are harvested such as silage corn. The rotation may also involve growing forage crops in rotation with various field crops." I think they should be informed about our technique, but before telling them, it should be tested on Jamaican soil.

Christiana Potato Growers Cooperative Association (CPGCA) is a project for agricultural workers and farmers in Jamaica. This project should be looked into more and scaled up. The CPGCA is located 50 miles north of Mandeville and was created in 1959. Some volunteers may travel for another 30 minutes to work with the rural farmers in their fields. The project tries to assist with secure agriculture and has been operating consistently for almost fifty years with the support of the community. It now represents about 4,000 small farmers. CPGCA wants to provide continuously great quality products and excellent services to farmers and to some markets, if they are able to sell, and to focus on the growth and productivity of the families and their community. The aim is to assist local farmers to increase their caution to specific practices and the quality of their harvest.

Role of Us All

First, the government has to inform them of the technique. I see them as the only way to get the word across in the country. The Prime Minister would get the Government Ministers to approve this new change, and then it would be put into action after it being tested on the soil. They will tell all communities of the tested technique and require them to use it. It fights against pest infestations, and it does not require the same crop getting planted, so there will be less soil pollution. Now there is a smaller chance of diseases building up in the soil.

Of course, it will take a while to get all the needed technology, but that is the government's role as well. The communities' role is to listen. Of course, there will be some farmers who will not want to change how they have been doing things for years, but it is significant to the safety of our environment that they change and the government has to ensure that. Organizations (CPGCA) should help also. They have the power to volunteer and donate their time and people to this technique with understanding. There are also other local organizations and projects that can help out

Based on the Research

After looking at all of this and examining the details, I see how much of a cycle this is. The agriculture and its practices can lead to hunger and not much income if done the wrong way. This family's children have to go to school if they can afford an education. In school, they are unfocused due to how hungry they are. Then it looks like they get caught up in the same web their parents were in. The best way to get some of this cut down is to really start sustainable agriculture the right way in Jamaica, and that is to use the crop rotation technique. Crop rotation helps the fertilization of soil. It can lessen the amount of disease in the soil and lessen the impact of insect infestations. So now, pesticides that are not good for the environment are not being used as much, which also cuts down money being spent on other things. This can have an impact on the money families are getting to receive as their income. Crop rotation assisting with fighting pest also makes producing more crops easier. If more crops are being produced, then that makes even more crops to be sold, and it makes more crops for the family to eat.

I mentioned the "Eat What We Grow Campaign" in the beginning of this essay. I feel that more money should be donated to this campaign as well. It will help the rural farmers and their families. This simple change in agriculture practice can change so much in Jamaica. It can boost sustainable agriculture, bring in more income for subsistence farmers and their families, and help the environment in such a new way. Women should also be treated just the same as the others. They should receive the same percentage of agriculture credit as anyone else as long as they are earning it. The CPGCA can be enforced to help make things more of a progress as well. There is also an organization called the 'Young Soldiers for Food Security' or the Farm Up Jamaica program. Its mission is to help with Jamaica's agriculture growing through sustainable agriculture, climate change, and organic farming. By 2030, I think there can be a major positive change if all of these things are put into action. The poverty rate will decrease. The economy will rise, and the environment will be better as a whole.

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