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Guatemala, Sustainable
Farming

Guatemala: Why Drug Wars, Poverty and Climate Change Are Forcing Farmers to Flee

Poverty is widespread in Guatemala with almost sixty percent of its population living below the poverty line. “The World Factbook: Guatemala” (n.d.) details that twenty-three percent of the total population and forty percent of the indigenous population live in extreme poverty. Impoverished farmers struggle, not to make a profit, but just to survive.

Daily life is a challenge for most families in Guatemala. They rely on farm-grown crops such as corn, squash, beans, cassava, papaya, and plantains as their main sources of nutrition. Different regions of the country present their inhabitants with different challenges and lifestyles. The mountainous areas contain the best farmland, and the people who live there usually indulge in their culture by wearing traditional Mayan clothing. Many of these people have jobs in agriculture, as the mountains are prime for vegetable production. In the coastal regions, people usually either spend their days farming sugar or fishing. Others live in villages, which are extremely unstable. These villages struggle to advance with the times, and education and healthcare are not easily found in most of them. The Guatemalan government doesn't address the problems that village-dwellers suffer from on a daily basis.

One type of crop that was actually profitable to the farmers in the past was the poppy flower. These bright red plants, *amapola* in Spanish, were grown in the western highlands of Guatemala near the Mexican border. The farmers were told that this valuable plant was used to make medicine. What it was actually being used for was heroin. Since the late 80's, the Mexican drug cartels have paid the farmers good money for the poppies. The poor farmers were able to generate enough income to provide food and clothing for their families. Then, after years of trying to eradicate the poppies and eliminate the drug trade, the Guatemalan government finally sent soldiers in to cut down all of the poppy plants. The farmers were devastated.

With no income and no other immediate high-value crop to replace the poppies, the farmers were

forced back into poverty. This poorly managed operation caused many Guatemalans to flee into the United States. Because many of these individuals did not move *legally*, it is difficult to find records and know how many farmers fled from Guatemala. However, according to a study conducted in 2018, Guatemala made up the tenth largest migrant group in the United States, with their foreign-born U.S. population reaching about one million, three hundred thousand people (“Largest U.S. Immigrant Groups over Time, 1960-Present.” 2020).

While the eradication of the poppies had good intentions, the plan failed to address the need to make a living for these farmers. The lack of insight and planning created another unfavorable situation – no revenue, no dinner.

Coffee farmers in Guatemala are also struggling with major losses as a coffee leaf rust disease has killed many of the coffee plants. Global warming and droughts have also added to the dramatically decreased coffee harvests over the past ten years. Coffee, which has been a longtime reliable export for Guatemala, cannot withstand the recent spike in temperature change. Between loss of income, increasing gang violence and corruption, these farmers are also joining the exodus north.

These conditions continue to force farmers back into poverty, leading to malnutrition and health problems, and ultimately, an evacuation of their country. This vicious combination of disappearing crops, a lack of resources, a poorly managed government and extreme poverty seems hopeless and unfair.

One seemingly simple solution to the problem is the growth of cacao farming in Guatemala. The nation is considered the “birthplace of chocolate” and has cultivated these beloved trees since the time of the ancient Mayans. After a rise in popularity in the 1980’s, cacao took a backseat as farmers shifted their focus to other crops, such as cardamom, sugar and coffee (“Cacao Verapaz - Uncommon Cacao: Wholesale Cocoa Beans.” n.d.). Cacao can stand the heat, and it costs less than the price of renewing coffee plants, which makes its cultivation appealing... but there are some disadvantages.

The biggest challenge with farming cacao today is that the cocoa markets are not doing well enough to support a family in need of a steady income, nevermind helping them to cross over the World Bank’s extreme poverty line, which currently is at one dollar and ninety cents per day (“Poverty Overview.” 2020). In Côte d'Ivoire, it was reported that of about three thousand certified cocoa farmers surveyed, the average daily wage was about ninety-three cents per person (Franceschi 2020). Nevertheless, there is still hope that one day cocoa will be a profitable crop, as the farm gate price of this plant is gradually increasing. The 2018 Cocoa Barometer describes how vital it is that the net income of cacao farmers be used as a “Key Performance Indicator” as

the market develops, which should allow cocoa to become a sustainable crop in Guatemala. Another important idea documented in the 2018 Cocoa Barometer reads, "... government supported supply management solutions should be put in place to control the amount of cocoa available." This statement suggests that limiting the production and sale of cocoa could increase the demand, and furthermore, the value of the product.

According to USAID, Guatemala also raises non-traditional crops such as snow peas, chia and mini vegetables, which have become very popular in recent years. It is important to do thorough research and collect the proper resources before growing these crops. Some may only be trending in the markets for a short period of time and quickly reach an equilibrium. Non-traditional crops can come with legal regulations too, which may make their production more tedious than other crops. Nonetheless, the potential for rural growth with these crops is a viable possibility because of the benefits of crop diversification, which include optimizing the land capabilities and income of the farmer.

Another possible solution, which is commonly used in West Africa, is intercropping. This method involves growing two different crops together, such as corn and cassava. This gives the farmers a crop to fall back on if, for example, the maize harvest fails because of a drought. Also, providing Guatemalan farmers with drought-resistant crops, such as the cowpea, which is grown from Nigeria to Brazil, could lead to successful agriculture practices. The main challenge would be distributing these types of plants into the farmers' hands quickly and affordably.

The Farmer-to-Farmer program supports agricultural training in Latin American countries, and it even provides resources and volunteers. Combining one of Guatemala's most prevalent natural resources with a few additional items provided by this program could greatly improve the population's quality of life. That natural resource is solar energy. Solar energy could be used for a multitude of purposes. It could be sold for direct income, used to generate electricity on the farms, and perhaps most beneficially - used to provide a reliable water source to farms.

Installing solar-powered water pump systems would take time and funding, but it would be the most sensible option for Guatemala for several reasons. Firstly, sunlight is unlimited and comes at no cost. The city of Antigua Guatemala, Guatemala receives an average of over seven hours of sunshine each day ("Antigua Guatemala, Guatemala - Detailed Climate Information and Monthly Weather Forecast." n.d.). The solar panels themselves cost money of course, but if the Farmer-to-Farmer program was unable to support this project, farmers could apply for solar panel grants. Solar energy is extremely low maintenance as panel adjustments/improvements only need to be implemented every twenty-five to thirty *years* ("How Much Maintenance Do Solar Panels Require?" n.d.). On a related note, solar energy would procure jobs such as solar panel repair and installation. Ultimately, the people would not have to make many major changes

in order to reap the endless benefits.

The World Bank or the Peace Corps might also be good resources as their missions are to fight poverty and to provide economic development, respectively. Both are well-equipped and experienced when it comes to screening and training volunteers, which makes the esteemed groups a viable option, despite any challenges related to Guatemala's war and drug-related violence. Regardless of what agency or agencies get involved, it is critical that the Guatemalan government work by their side, so that they can learn how to properly support and sustain the agricultural industry in their country. Perhaps the USDA could serve as an example of how to adopt and control policies related to farming, such as providing subsidies or, at the very least, education. Training and resources provided by the government would be very useful.

Volunteers would need to be mindful of the drug warfare and violence that is prevalent in Guatemala. Safety concerns and regulations are problematic and would need to be addressed in order for change to occur. Though obviously not completely fool-proof, simple precautions can be taken to avoid incidents of violence. For example, volunteers should be instructed to stay with other volunteers at all times and not stray far from main roads and cities. Implementing a combination of education, safety measures, a change in crop choices, solar energy, and the support of the Guatemalan government, will ensure that successful farming practices can be sustainable.

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