

Mikel Wright
Hoover High School
Des Moines, IA
Honduras, Factor 5

Honduras: Preparing for Climate Change and Natural Disasters

Have you ever been hungry? Have you ever been starving? In my opinion, there is a huge difference between the two. The definition of starve is to suffer or die from extreme or prolonged lack of food. Sadly, there are starving people all over the world. There are people who starve to death every day. Most people have never felt what it's like to be starving but unfortunately, many people have. This is not acceptable. Malnutrition and hunger is a problem that is far too common in the world. The problem is so common that it affects almost one-billion people. That means about thirteen percent or one out of every seven people in the world's population is at risk of starvation or death from being malnourished. Food security is a problem that affects way too many places and people. It affects people of all ages, color, gender, religion, and ethnicity. One of the many places suffering from this issue is the Central American country, Honduras. Honduras is a country located in Central America and is bordered by Guatemala, El Salvador, and Nicaragua. It was established in 1821. After two and a half decades of mostly military rule, a freely elected civilian government came to power in 1982. Honduras deals with an overwhelming amount of poverty and is the second poorest country in Central America after Nicaragua. The country is in desperate need of help with one in every four children suffering from chronic malnutrition. Honduras faces many issues concerning food security. A massive reason for their food security issues are climate change and natural disasters. This country faces droughts, floods, hurricanes, extreme temperatures and many other natural disasters (*Disaster Statistics*). Climate change has caused many problems and is creating more bizarre and hazardous weather in Honduras making it extremely difficult for this country to get back on its feet and fight its food security issues. Over two and a half million people in rural areas live in poverty. This represents sixty-five percent of the rural population. Poverty is common in central hillside area in the inner highlands of the country, which are home to about seventy-five percent of the rural population. The highest concentration of poverty in rural areas is found in the western area. Agriculture is vital to Honduras because it employs thirty-nine percent of the country's population (A Country Study: Honduras).

Family in Honduras is a big deal. They look for family for social acceptance and assistance. Family devotion is a deep-rooted and unquestioned asset. In other words, a family bond in Honduras is very strong. Families with equal resources share and work together. Wealthy families are generous and even adopt children from poorer families to help the child be raised in a better household. The men are expected to be the head of household and support his children. Women are expected to stay home and care for the children and the household. Rural families usually live in extended families and are more stable as a family unit. The structure of a family in Honduras is one that is common in Latin America. (A Country Study: Honduras.)

In Honduras, students go to primary school, secondary, and then on to a university. Only forty three percent of kids complete primary school, thirty percent complete secondary, and only eight percent of kids go on to a university. Students from ages seven to fourteen attend free primary school. Primary

school in Honduras is required. Education in Honduras is a major issue. The schools are understaffed and the teachers are undertrained. Some schools are so understaffed that the teachers have a classroom with up to 80 students. They also lack the funds needed to get the proper materials for the students who do attend school. Honduras has widespread illiteracy. Forty percent of the whole country and eighty percent of people in rural areas are considered illiterate. Education is one of the many barriers this country faces. I believe if they focus on education, they can improve the status of their whole country. With a good education system, they can produce more people with knowledge of agriculture, engineering, and sciences. The more they know about agriculture, the easier it will be to raise more crops effectively and efficiently. This already helps but unfortunately this is not all it would take. The country also needs more engineers who can help come with different systems or structures to implement to reduce damage done by disasters and climate change. Sciences are also vital. Plant Science would be needed to make drought resistant crops and improve plant varieties. (A Country Study: Honduras)

Eighty-five percent of Honduras has access to health care. Sixty percent is provided by Secretary of Health, fifteen percent by the Social Security Institute, ten percent by the private sector, and fifteen percent have no access to health care. Health care is essential in this country because it is very prone to natural disasters and it has had an increase in the HIV/AIDS pandemic. (Honduras: Country Cooperation Strategy)

Agricultural practices in Honduras include subsistence farming, small scale farms, and slash and burn. Subsistence farming is raising the crops and animals necessary for one to make a living. This is very common in Honduras. Subsistence farmers make up seventy percent of farming families in Honduras. Subsistence farmers don't have access to very much land so they depend on money sent from relatives from other areas. There are small-scale farms on the hillside, but they are extremely prone to erosion. The lands on these hills lose soil and this makes them incredibly difficult to continue to farm. Another common form of farming in Honduras is "slash and burn" agriculture. Slash and burn is the process of slashing down trees and crops for their fruit and vegetation then burning the remains. They use the ashes from the remains as nutrients to grow new trees and crops. The land has to be left alone for some time after this is done so the land can be reused (Steif). This has a negative effect and is detrimental to the environment because it causes deforestation and drives animals away from their home. It can cause extinction of plants and animals. It also has a negative effect on the soil. The soil becomes less fertile, which is bad for re-growing or reusing the land. In my opinion and this is way easier said than done, there must be a new and more efficient way of agriculture for Honduras. Slash and burn will only destroy the land, making it unusable. Honduras needs more usable land and without it, malnutrition and starvation will increase. (A Country Study: Honduras.)

Farmers, indigenous groups, and people who live in poverty are heavily affected by climate change and natural disasters. The reason why they are so heavily affected by climate change and natural disasters is because they are especially vulnerable. The indigenous and Afro-Honduran groups represent seven percent of the population. Out of the ones living in rural areas, twenty percent are poor and eighty percent are extremely poor. Farmers' crops and the land they farm on are decimated. The people who live in

poverty have little to no protection from the natural disasters. They lack the resources to protect themselves conveniently and effectively. Honduras currently is going through extreme weather and is expected to get worse. Droughts and floods compromise the production for farmers and this truly harms their economy. This has also caused water scarcity which is continuing to increase. Honduras faces many diverse challenges. They often face hurricanes, earthquakes, extreme temperatures, droughts, floods, and other natural disasters. If the country finds a way to adjust and reduce damage done by these natural disasters, then their agricultural system will improve tremendously. This is task is a difficult one because of how diverse the natural disasters that occur in Honduras are. From the years of 1980-2010, Honduras has had a total of fifty-nine natural disasters and more than four-million dollars in damage. (Agriculture and Climate Change in Honduras)

The reason I am addressing climate change as my factor is because if you were to look up Honduras and the reasons why this country has issues with food security, climate change comes up very frequently. I have an idea and my own opinion on how to help with this situation. First off, we know that relief funds help but I believe we should be putting funds towards preparing for the disaster rather than paying to rebuild the damage caused by the disaster. For example, if you were skating, and you know you're eventually going to fall, would it make more sense to put money towards paying for the recovery process of your injury or would it make more sense to invest in the right equipment such as a helmet or knee pads to reduce your injury? In my opinion, it makes more sense to prepare. Being prepared is half the battle. Knowing that this is a disaster prone country, the people should be educated on how to prepare and reduce the damage done by natural disasters and climate change. People must be educated and aware and I cannot stress enough how important I believe this is. Not only could it reduce the damage done to crops and livestock, it could save lives as well.

The things I believe Honduras needs to do, is first of all stop slash and burn agriculture. This is decimating farmland and contributing to climate change. This is something they absolutely cannot afford to keep doing. They need to create more farmland and this practice is destroying it. Next, I believe they need to study more plant science to make more crops that would be more resilient to natural disaster. They need to study ways to make them more resistant to droughts and floods. They also could try to use more indoor operations for livestock to so they aren't as affected by extreme weather. They could try to use CAFOs, which is an acronym for Concentrated Animal Feeding Operation. These help increase productions for livestock and can protect them from the extreme weather. Last, they need more warning systems in place to make the people of Honduras aware of the coming danger. Knowing what they are up against is half the battle and this alone can prevent a large loss of crops and livestock. People need to be prepared and they have to use history to look at past mistakes so they improve those areas. Hurricane Mitch, which is considered of the most deadly hurricanes in the western hemisphere in the past century, devastated Honduras. According to the National Climatic Data Center, it's estimated that 6,500 died and 10,000 are still missing. Beans, sugar, and banana crops were destroyed. It's hard to prepare for something so catastrophic but there are ways to reduce damage done. Honduras wasn't prepared at all for a storm of this Category and because of this, they were severely devastated. People cannot control when these situations happen but it is their job to be ready for something like this. They need to go back and

look at some of the mistakes or things that could have been prevented, record these mistakes, and go back and try to improve in these areas (Lott).

Next, I'll tell you how to implement these ideas. To prepare for floods and erosion, they could take a page from American farmers and try the methods of contouring, strip cropping, and terracing. Contouring the land alone saves 50% of soil from erosion and is extremely convenient for the hillside farms in Honduras. Warning systems are a bigger challenge because the country has to come up with its own unique method. In some areas, emails, and smart phone alerts are used to warn farmers of impending dangers. With the overwhelming illiteracy rate, it would be difficult for this method to be effective and not only that, but the lack of this sort of technology makes this difficult as well. In addition to developing literacy rates, Hondurans need to seek higher education. A plant cell biologist by the name of Sean Cutler, a professor from the University of California, produced a chemical produced chemical that such high potential, its being called the next powerful tool for crop protection in the new world of extreme weather. He was given a chance to learn in higher education and his discoveries will help Honduras.

I have listed things that they need to do as a country and in my conclusion, I'm telling you things we must do to help them. It is a very simple thing, but first, I want to start by saying that it's our duty as people to help others when the need arises. We must help others prosper and flourish. That will make us better as a race. Honduras needs our help, and we must help them. Why do we have to help them? How does this affect me, and what is in this for me? For one, we have to help them because we have the resources and the knowledge to help these people and I believe that if you have the resources and knowledge to help someone and commit to a good cause, you have to because it is right. How can you be content and happy knowing you had the resources to save lives but you didn't? Second, the hunger in Honduras may not directly affect you and the reward for helping those people in need may not be something you can hold onto physically, but knowing you did a good deed and that you are saving lives is a reward that you can hold closely into your heart and mind. You committed an act of selflessness and you helped others, even when you didn't need to. Knowing this is probably one of the best things that someone can receive from helping others. We have the knowledge to help reduce damage done by climate change and natural disasters and we must share it with Honduras simply because we can. We must share. Only good can come out of it and there are no negatives to helping others. We share our knowledge with them, it saves lives. What bad can come out of that? These are actions that we, the people with resources, need to take in order to help those who lack the resources. They lack the resources and knowledge to efficiently protect themselves from climate change and natural disaster. Climate change and natural disasters happen right here in the United States, but we are better prepared and have extensive knowledge in these areas to reduce the damage done. We can help them set up efficient warning systems, educate them more in plant science so that they can make more plant resilient crops, teach them techniques of farming that can help them, teach them the negative effects of slash burn, import more goods, and set up more charity for these people. Charities that send meals to this country are great, but I believe educating them to make their own meals with the use of their land are more efficient in helping this huge problem. Natural disasters are going to continue to ravage the land year after year but the damage can be reduced that is the goal. This goal will only be met with our help. So again, the reason we must help them, is simply because we can.

Bibliography

- Honduras: Country Cooperation Strategy, at a Glance*. N.p.: World Health Organization, May 2012. PDF.
- Lott, Neal, Sam Mccown, Axel Graumann, Tom Ross, and Mark Lackey. *Http://www.ncdc.noaa.gov/*. Rep. National Climatic Data Center, Jan.-Feb. 2009. Web. Apr.-May 2013. <<http://www.ncdc.noaa.gov/oa/reports/mitch/mitch.html>>.
- "A Country Study: Honduras." *The Library of Congress*. N.p., 27 July 2010. Web. 15 Apr. 2013. <[http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+hn0066\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+hn0066))>.
- Steif, Colin. "Slash and Burn Agriculture." *About.com Geography*. About.com, n.d. Web. 15 Apr. 2013. <<http://geography.about.com/od/urbaneconomicgeography/a/slashburn.htm>>.
- Disaster Statistics*. Rep. N.p., n.d. Web. 15 Apr. 2013. <<http://www.preventionweb.net/english/countries/statistics/?cid=76>>.
- "Agriculture and Climate Change in Honduras: Actual Situation and First Steps." *Kither*. N.p., 13 Mar. 2012. Web. 24 Apr. 2013. <<http://kither.org/politics-governance/agriculture-and-climate-change-in-honduras>>.