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## **Making Hondurans Water and Food Secure**

The younger children have been sent off to school, while the mother, father, and sometimes even the oldest children stay home. They have a long day ahead of them. The mother would prepare a traditional breakfast to start the day. They all eat their meal and begin to work. The oldest children, of whom many do not attend high school, begin working inside on household chores. The parents take care of the more difficult tasks. These tasks include working outside with the animals and crops. Some parents are employed, and others are self-employed. Another family nearby, Maria, her husband, and their 7 children live in very modest home on the countryside, living quite similar to the first family. As the children grow older, around 6 years old, they begin working the family farm with their parents and older siblings. Much of the food not grown by the family is purchased from markets or store. Vegetables and fruits come from their own gardens, but meat is not often purchased.

Honduras is a small country located in Central America on the border of the Caribbean, in between Nicaragua, Guatemala, and El Salvador. Honduras is also considered a water rich country.<sup>1</sup> This is because of the Ulúa river which runs through Valle de Sula. Although it does have many other rivers, it does not have many other bodies of water like lakes or ponds.<sup>2</sup> Nine percent of Honduras' land is arable land despite being water-rich. Arable land is land that is not suitable for growing crops. Another two percent of the land is constantly being irrigated to ensure crops can grow. The other eighty nine percent of the land is made up of permanent crops and other farm land.<sup>2</sup> Because Honduras is such a culture driven country, if there are farms most are family-run. In Latin America as a whole, the average farm size is 1 hectares, or roughly 2.5 acres of land. The crops vary based upon the land, but the most common crop is maize (corn).

Honduras is prone to many climate issues. These are few among the many issues Honduras is exposed to: soil erosion, urban population expansion, and deforestation due to logging and agricultural development.<sup>3</sup> Urban population and deforestation due to agricultural development and logging are two causes to climate issues that humans can control. Soil erosion is one exception. Humans can contribute to soil erosion but are not the main cause. Humans can contribute to soil erosion through overgrazing, construction, poor farming, and logging.<sup>4</sup>

Men are more often involved in politics, but women have been known to choose career paths such as mayors, judges, lawyers, members of congress, members of the cabinet, law enforcement officers. Women are also executives of non-governmental organizations, managers of stores, and professors of universities. Careers that are male dominated in Honduras include truck, bus, and taxi drivers, head of agricultural products purchasing, construction workers, and military officers.<sup>5</sup> Men are most often head of the household, but there are many single parent homes in which women lead the home. If the parents are unemployed, they work from home. At home, work for the men most often includes farm work. The

<sup>&</sup>lt;sup>1</sup> "Central America and Caribbean: Honduras" https://www.cia.gov/library/publications/the-world-factbook/geos/ho.html (6 May 2014)

<sup>&</sup>lt;sup>2</sup> "List of Rivers in Honduras" http://en.wikipedia.org/wiki/List\_of\_rivers\_of\_Honduras (3 May 2014)

<sup>&</sup>lt;sup>3</sup> "Honduras" http://cdn.wfp.org/hungermap/#HN

<sup>&</sup>lt;sup>4</sup> Robert Vaux "How Do Humans Contribute to Soil Erosion" http://www.ehow.com/info\_8526558\_do-humanscontribute-soil-erosion.html

<sup>&</sup>lt;sup>5</sup> "Division of Labor by Gender" http://www.everyculture.com/Ge-It/Honduras.html

women mostly specialize in making tortillas, a process that can take hours a day.<sup>6</sup> This depends how the size of the family, and what else the family will eat. Young children either go to school or stay at home, depending on the family's income. As they grow older they soon begin to work with their parents as well.

Being water insecure causes Honduras a variety of issues. It restricts families' abilities to grow fruitful crops capable of restoring health in themselves. Because of the devastating after-effects of Hurricane Mitch in 1998 including numerous landslides and floods, 75% of the country was left with nothing but contaminated water. Although it was indeed contaminated, they continued to drink this contaminated water. In Honduras, all diseases are either contracted from contaminated food or water, diseased insects and/or animals, or infected people.<sup>7</sup> In Honduras, the most prevalent food or waterborne disease is Hepatitis A. Hepatitis A is a disease of the liver that can only be contracted when a person consumes food or water contaminated with another's feces.<sup>8</sup> This occurs through poor hygiene or an unclean source of water. In 2000, ten percent of the population did not have access to clean water. Another thirty-three percent of the population had poor sanitation habits.<sup>9</sup> The most frequent disease contracted from insects is malaria. Malaria is found all throughout the country. It is contracted from mosquitoes and is most often found in Olancho and Choluteca, which are found in the east and the south in Honduras, respectively. In 2006, there were thirty-seven thousand cases of malaria, three thousand, seven hundred of those cases being children under the age of five.<sup>10</sup> HIV/AIDS is the most common disease contracted through personto-person contact. In 1999, there was an estimated 63,000 people living with AIDS. As of 2007, there was an estimated thirty-thousand people living with AIDS.

FAO, the Food and Agricultural Organization of the United Nations, with the help of Honduran government and funding from the Dutch government, put in place a program called Lempira Sur Project. The Lempira Sur Project purpose was to establish food security, especially in the region of Lempira, Honduras.<sup>11</sup> FAO met with the people of Lempira and talked with them to discuss exactly what they were in need of, and what issues they were facing.<sup>12</sup> From those conversations with the natives, they discovered the main issue was degenerated soil. Because of the degenerated soil, run-off would run into rivers and streams, where Hondurans would get their water, although it was unsanitary. Before FAO became involved, farmers tried to plant trees to help improve the run-off and it did. After the trial had succeeded, many other farmer participated, while others still had their doubts. There was a personal pride of the farmers who participated to know they helped improve their department.

Honduras' food security issue is mostly due to inadequate sanitation and reliable clean water sources. Honduras' government has recognized the issue, but has failed to take action in solving it. Canada has created a program called Aid Effectiveness Agenda in which they used Honduras as a trial country.<sup>13</sup> Canada has recognized the food security issue and is currently working with Honduran government to do something about it. Canada is also working with Honduran farmers to aid them in the transition from subsistence agriculture to "market-ready" production.<sup>14</sup> Canada's Aid Effectiveness Agenda also provided many rural Hondurans with pure water.

<sup>&</sup>lt;sup>6</sup> "Division of Labor" http://www.everyculture.com/Ge-It/Honduras.html

<sup>&</sup>lt;sup>7</sup> "Main Health Risks for Honduras" http://www.nationsencyclopedia.com/Americas/Honduras-HEALTH.html

<sup>&</sup>lt;sup>8</sup> "Hepatisis A" http://www.who.int/mediacentre/factsheets/fs328/en/

<sup>&</sup>lt;sup>9</sup> "Honduras-Health" http://www.nationsencyclopedia.com/Americas/Honduras-HEALTH.html

<sup>&</sup>lt;sup>10</sup> "Honduras: I. Epidemiological Profile"

http://www.who.int/malaria/publications/country-profiles/2008/mal2008-honduras-en.pdf

<sup>&</sup>lt;sup>11</sup> "Participants in the Lempira Sur Project" http://www.fao.org/focus/e/honduras/partic-e.htm

<sup>&</sup>lt;sup>12</sup> "Honduras: People's Participation Brings Food Security" http://www.fao.org/focus/e/honduras/story-e.htm

<sup>&</sup>lt;sup>13</sup> "Aid Effectiveness Agenda" http://www.acdi-cida.gc.ca/acdi-cida/ACDI-CIDA.nsf/eng/FRA-825105226-KFT

<sup>&</sup>lt;sup>14</sup> "Honduras" http://www.acdi-cida.gc.ca/honduras-e

Honduras' poor health is directly associated to its lack of health care. Honduras has health care, but it is only available for those that can pay the costs of insurance. In highly populated areas, hospitals and doctors are available.<sup>15</sup> People in highly rural areas only have access to doctors that can treat only minor issues. In 1990, there was an estimated 3.1 million people had no access to health insurance.<sup>16</sup> Now, eighty percent of Honduras' population doesn't have access to quality health care.<sup>17</sup>

Honduras is the second poorest country in Central America.<sup>18</sup> 60% of Hondurans are living in poverty.<sup>19</sup> In 2010, Honduras had a per-capita income \$1,880 US currency. Because Honduras is so poor, the government isn't capable of providing the country with pure, clean water. That's when the government begins to rely on the NGOs, Non-Governmental Organizations, in order that it keeps its people from extreme poverty. 63% of the country lives on less than a dollar a day. That little amount of money must provide their family with food, clothing, and shelter.

Hondurans has four main water sources. 57% of their water comes from springs, 34% from brooks, 5% from rivers, and 4% of water comes from groundwater.<sup>20</sup> Being water insecure causes Honduras a variety of issues. In Honduras, water insecurity includes the inability to access water and the contamination of water. Because of the devastating after-effects of Hurricane Mitch in 1998 including numerous landslides and floods, 75% of the country was left with nothing but contaminated water. They drank "water" from wherever they could. This situation restricts families' abilities to grow fruitful crops capable of restoring health in themselves. More importantly, the availability of clean drinking water was little. Some non-for-profit organizations build wells, from which other locals will get their water.

In Lepaera, Honduras, UNICEF installed a water and sanitation system, and brought water to forty homes surrounding the community. There are first-hand accounts describing how much better life is with clean water. These people also described how much healthier they were and how much better they felt. Illnesses like diarrhea wouldn't affect them anymore because their water was clean and pure. <sup>21</sup>Skin infections would also occur because of the unclean water. UNICEF works in over 100 countries to improve the water, sanitation, and hygiene situations.<sup>22</sup>

Honduras' water and food security problem can be solved through non-for-profit organizations such as UNICEF, Charity: Water, water.org, along with many others. It can also be solved through government intervention and infrastructure changes. Honduras is a target for non-for-profit organizations because of its extreme poverty. Through the help of those organizations Honduras' hunger can reduced or even solved. The government of Honduras can solve its country's food security issue by seeking help from other nations and creating programs to improve the situation. The last way Honduras' hunger can be solved, is through infrastructure changes. When UNICEF installed the water and sanitation system<sup>22</sup>, it was such a big impact of the people that it affected. If more infrastructure developments started to occur, there would be less thirst because of the availability of resources.

<sup>&</sup>lt;sup>15</sup> "Health Care in Honduras" http://internationalliving.com/countries/honduras/health-care-in-honduras/

<sup>&</sup>lt;sup>16</sup> "Health" http://countrystudies.us/honduras/59.htm

<sup>&</sup>lt;sup>17</sup> "Snapshot of Honduras" http://www.americares.org/where-we-work/latin-america-caribbean/honduras.html

<sup>&</sup>lt;sup>18</sup> "Central America and Caribbean: Honduras" https://www.cia.gov/library/publications/the-world-factbook/geos/ho.html

<sup>&</sup>lt;sup>19</sup> "Hondurans at Work" http://thisishonduras.com/Economy.htm

<sup>&</sup>lt;sup>20</sup> "Water Supply and Sanitation in Honduras"

http://en.wikipedia.org/wiki/Water\_supply\_and\_sanitation\_in\_Honduras

<sup>&</sup>lt;sup>22</sup>"Introduction" http://www.unicef.org/wash/

The non-for-profit organizations Water.org and Charity: Water. Honduras was Water.org's first project. In 1990, Water.org has helped 40 different communities to provide them with clean water. In those 40 communities 11,000 people were given access to clean water.<sup>23</sup> Charity: Water is a non-for-profit that builds wells in developing countries that need safe water.<sup>24</sup> Other organizations include World Vision International<sup>25</sup> and the Honduran Red Cross<sup>26</sup>, donate food to people throughout the country also.

Honduras is facing water and sanitation issues. Solving a water and sanitation issue would be increasing access to safe, potable water supplies, toilets and pit latrines, and education on proper sanitation/hygiene and food preparation techniques to reduce the transmission of food and waterborne disease.<sup>27</sup> Many of the causes of extreme illnesses in Honduras come from waterborne diseases. These waterborne diseases are mostly caused by inadequate sanitation, and contaminated water.<sup>28</sup> If Honduran citizens could be educated about sanitation, and how illnesses are directly linked to improper sanitation, the use of these new practices would greatly improve the health of their country. Many organization have helped Honduras access clean water, while other organizations have provided Hondurans with food.

The solution to Honduras' food security problem is education and assistance. Hondurans should be educated about where to find clean water and how to sterilize water themselves. They also should also be educated about cleanliness, the cleanliness of themselves and their living space. Hondurans should be advised about how poor sanitation can lead to sickness. Assistance would solve the issue because different organizations are building field houses and wells<sup>29</sup>, and with that assistance Honduras will continue to get one step closer to food security. When Honduras is food secure, so little less children would be affected by so many illnesses only because they're thirsty. When Honduras' food security issue is resolved, people won't have to worry about not having food or have to worry about not having enough money to provide for their families.

75% of the population is living in rural poverty.<sup>30</sup>  $\frac{1}{3}$  of the population lives on less than a dollar a day. These statistics describe the population of Honduras. Honduras is a small country in Central America on the border of the Caribbean Sea.<sup>31</sup> This small country is not food secure (most of the population doesn't know if they'll have food to eat the next week). Through the help of various organizations, government strength, and education, this country will be a healthy, thriving country. Food security takes time to accomplish, but the only way it will get accomplished is through help from other countries and over time.

<sup>&</sup>lt;sup>23</sup> "Honduras" http://water.org/country/honduras/

<sup>&</sup>lt;sup>24</sup> "Honduras" http://www.charitywater.org/projects/countries/honduras/

<sup>&</sup>lt;sup>25</sup> "Food on the Table" http://www.wvi.org/honduras/article/food-table

<sup>&</sup>lt;sup>26</sup> "Honduran Red Cross" https://www.ifrc.org/en/what-we-do/where-we-work/americas/honduran-red-cross/

<sup>&</sup>lt;sup>27</sup> "Water and Sanitation"

http://www.worldfoodprize.org/documents/filelibrary/documents/state\_youth\_institutes/2014\_IOWA\_Paper\_Instructions\_0CA872AB0A022.pdf

<sup>&</sup>lt;sup>28</sup> "Hepatisis A" http://www.who.int/mediacentre/factsheets/fs328/en/

<sup>&</sup>lt;sup>29</sup> "Honduras" http://www.charitywater.org/projects/countries/honduras/

<sup>&</sup>lt;sup>30</sup> "Honduras" http://www.wfp.org/countries/honduras

<sup>&</sup>lt;sup>31</sup> "Central America and Carribean" https://www.cia.gov/library/publications/the-world-factbook/geos/ho.html

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