Brandi Wells

Ludington High School

Ludington, MI, USA

Venezuela, Water Scarcity and Malnutrition

 Venezuela: A Way to Decrease Water Scarcity and Malnutrition by Managing Groundwater

Venezuela is on the coastline, yet it struggles to provide enough food and water for its residents. Food is distributed by the government, which means families are limited in how much food they can have. In most cases, the food families are given is not enough to keep the family healthy, and most children only get 1-2 meals a day. In this essay, we will explore a way to decrease the water and food scarcity problem in Venezuela, aiming to stop the death of the 27.4% of Venezuelan kids who die due to malnutrition every year (*The New Humanitarian*).

Most families have between 3-6 kids and live in 3-bedroom houses very close to other houses (*Cultural Atlas*). They only eat 1-2 meals a day; most skip breakfast and go right to lunch. The typical meal consists of corn, rice, beans, and meat. They have a low diet quality and poor quantity of meals. The food is normally distributed by the government and is fried at home. This leads to low quantity and bad quality meals. Having fried food every day can severely affect the digestive tract and can cause people to get sick or develop diseases (*Wikipedia*). The leading cause of death in Venezuela is heart disease. This heart disease is caused by a buildup of plaque which moves to the arteries rather than the heart and brain. This can be caused by hereditary means or an unhealthy diet. Families can’t just go to a grocery store and get whatever they want. To prevent heart disease, you can eat fresh fruits and vegetables, leafy greens, fat-free or low-fat dairy products, and lean meat (*PubMed Central*). The majority of people in Venezuela work while their children are in school. Some people in Venezuela are farmers, but due to the recent decrease in water, farmers haven’t been able to produce enough resources to support their country. Since 2011, the Great Housing Mission of Venezuela has provided decent homes for low-income families for an affordable low price or for free. Most people work in factories for 8 hours a day, and their monthly pay is only $145(veja.abril.com).

Health care is very limited. Not only is it expensive, but the quality of care is bad. Venezuela has a lack of medicine and basic medical necessities. Along with not having clean water, it’s very hard to clean and take care of wounds(veja.abril.com). Only 18% of the country has access to clean water, but still, are limited to the amount that can be used. That means that 82% of Venezuelans don’t have any clean drinking water to drink and stay hydrated. The population in Venezuela was growing until 2016 when locals began to leave due to the controlling government. Since 2015 there have been 7.7 million refugees from Venezuela. People in Venezuela have toilets but no water to flush. This is very unsanitary and can cause physical problems because people can be exposed to harmful bacteria (*APNews*). Venezuela does have roads, but most locals can’t afford cars or keep their cars running due to hyperinflation. This leads a lot of people to use buses and trains, and some even result in using the jungle to get around. This is very unsafe because there are a lot of dangerous animals and plants in the jungle that they are exposed to every day (*Iexplore*).

Venezuela needs solutions. I believe the best way to do that is by setting up filtered wells in central Venezuelan cities (wells for Sudan), having a local greenhouse to provide fresh food to locals, and giving out instructional flyers to adults so they can learn how to take care of the wells and greenhouses.

Building wells is a great way to get fresh water to a centralized location; this has been done all over the world. Embrace Relief is an organization dedicated to building wells in countries that need water. They have a website that makes it easy to donate money, build a well, or repair a well. All you do is click a button and donate money. People get more encouraged to do this with the incentive of having their name on them. This is a great idea by (*Embrace Relief*) and it seems to be very successful because they have built more than 800 water wells and given clean water to over 800,000 people to this day. If we could get in contact with Embrace Relief, we could add our project to their website for people to donate if they choose. I could help this by encouraging people in my community to donate online and raising money specifically for wells in Venezuela (*embrace relief.org*). We could also partner with local food stores like Walmart. Walmart has a button pop up on their checkout page after every purchase, and it asks you if you want to round up your change or donate a few dollars to charity. In December of 2022, Walmart raised 33 million dollars for Children’s Miracle Network within one month. If we could get Walmart to sponsor us for a month, we could raise enough money to build 75,000 wells (*click2houston.com*). The advantages of water wells are amazing. Wells have a nearly endless water supply (30-50 years), it's the most cost-effective way to deliver water to houses and towns, and water wells are a great way to obtain water in places that are too far away from water sources (*beauchampwater.com*). It takes between 1-2 weeks to plan, prep, and drill a well. The first step is finding the right spot to drill. It’s best to hire a professional well driller to plan the location of the well because they know the best spot to get the most water. Next is installation, you need to get the proper permits and have a set location for your well. Then, you can begin to drill and place the well. The next step is to test the well and its water to make sure everything works and the water is safe to drink. Finally, you need to purify the water. This is done by softening the water and filtering out minerals that could be damaging (*suburbanwell.com*).

Having a local greenhouse or garden in Venezuelan towns would be extremely impactful by providing locals with fresh fruits and vegetables when they need them. Venezuelan foods are distributed by the government, and they are typically fried; greasy fried foods are very bad for health. All the greasy foods people eat in Venezuela can cause heart disease, which is the leading cause of death in Venezuela. Providing healthy fresh food will decrease the amount of grease consumed and will then decrease the number of deaths in Venezuela. A greenhouse is typically a wooden frame with clear plastic or glass windows that allow sunlight in and keep bad weather and dangerous animals out. To build a greenhouse, you first need to pick your location. The location should be an area that locals can easily access but should also be out of the way so it doesn’t interfere with people’s lives negatively. The greenhouse also needs to be somewhere where it can get the most sunlight. For Venezuela, greenhouses on the south side of houses receive the most sunlight. Next, you need to pick your structure, the most common are stand-alone greenhouses, which are separate buildings and not attached to anything, or lean-to greenhouses, which are attached to a structure (*lawnstarter.com*). Both are great, but stand-alone greenhouses would last longer in Venezuela because they save more space and are a lot more sturdy, which comes in handy with the climate in Venezuela, considering that it storms an average of 300 nights a year according to (*Atlas Obscura*). After picking the type of greenhouse you want to use, you have to pick shapes and materials, you want the shape to fit well and be sturdy while still maximizing your space. Finally, you need workers and permits paid for to begin building your greenhouse. When you build your greenhouse with simple materials, the cost averages $250 - $1,500 per square foot, which is a lot less than the average $2,500-$15,000 greenhouse (*lawnstarter.com*). After building a greenhouse, you still need seeds, soil, and water. First, most seeds only cost $1- $2.50 per 1,000 seeds. After buying seeds, the produce seeds can then be reused to make more produce. Second, with the weather in Venezuela, the soil is moist and can be taken from a good place in the ground. Lastly, if we can install wells in Venezuela, the water for farming and the greenhouses can be taken from the wells. If not, rainwater could be collected in barrels because it doesn’t need to be filtered if it’s rainwater for the plants.

Have you ever bought something online or in a store that you had to assemble on your own? A cabinet or shelf? Well, normally when you have to assemble something, it will come with instructions. My original idea is to take common instructional flyers and turn them into learning devices. People in Venezuela don’t have the time to schedule classes because they work 8 hours a day and then come home to take care of their families. Therefore, if people can have instructional flyers on how to maintain wells or keep greenhouses running and organized, then it will lower the cost of maintenance and provide adults with more education as well as give adults the time to learn when they are free instead of having to make room for classes.

In conclusion, I believe that if Venezuela can be provided with wells, greenhouses, and instructions, then this will solve not only the water crisis but also malnutrition and hunger scarcity problems in Venezuela. We can eliminate the leading cause of death (heart disease) by providing organic non-fried foods to children and families in Venezuela.

Works cited

Atlas Obscura. (n.d.). *See Venezuela’s everlasting lightning storm*. Atlas Obscura. https://www.atlasobscura.com/videos/see-venezuela-s-everlasting-lightning-storm

Co, S. W. D. (n.d.). *How long does it take to get a well up and running?*. How Long Does it Take to Get a Well Up and Running?| Suburban Well Drilling Co. https://www.suburbanwell.com/how-long-does-it-take-to-get-a-well-up-and-running.html#:~:text=All%20in%20all%2C%20with%20all,shorter%20or%20longer%20than%20this.

Davis, A., & Slaydon, A. (2022, December 19). *4 things to know about charity donations at Checkout*. KPRC. https://www.click2houston.com/consumer/2022/12/19/4-things-to-know-about-charity-donations-at-the-checkout/

*Embrace relief - embrace the world!*. Embrace Relief Foundation. (2023, June 12). https://www.embracerelief.org/

Hernández-Hernández, R., Duín, A., Octavio-Seijas, J. A., López-Rivera, J., Morr, I., Silva, E., Gúzman-Franolic, M. L., Costantini-Olmos, A. P., Marval, J., Ruíz-Lugo, J. F., Vásquez, D., Méndez-Amaya, N. C., Armas-Hernández, M. J., Beaney, T., Ster, A. C., & Poulter, N. R. (2020, August). *Results of may measurement Month 2018 campaign in Venezuela*. European heart journal supplements : journal of the European Society of Cardiology. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7455277/#:~:text=In%20Venezuela%2C%20cardiovascular%20diseases%20are,%2C%20stroke%2C%20and%20heart%20failure.&text=Hypertension%20is%20the%20principal%20risk,smoking%2C%20and%20low%20physical%20activity.

Pier. (n.d.). *Venezuelan culture - family*. Cultural Atlas. https://culturalatlas.sbs.com.au/venezuelan-culture/venezuelan-culture-family#

*Venezuela*. The New Humanitarian. (2023, October 17). <https://www.thenewhumanitarian.org/americas/venezuela>

*Venezuela - Transportation*. Adventure Tourism - Experiential Travel Guides. (n.d.). https://www.iexplore.com/articles/travel-guides/central-and-south-america/venezuela/transportation#:~:text=Venezuela%20Trains%20and%20Buses,requested%20at%20a%20police%20roadblock.

*Water wells*. Water for South Sudan. (n.d.). https://www.waterforsouthsudan.org/water-wells

Weinberg, P. M. (n.d.-a). *Life in Venezuela, where 94.5% of the population lives below poverty line*. VEJA. https://veja.abril.com.br/mundo/life-in-venezuela-where-94-5-of-the-population-lives-below-poverty-line

*Well water: Advantages & disadvantages: Beauchamp Water Treatment*. Beauchamp Water Treatment Solutions. (n.d.). https://www.beauchampwater.com/well-water-solutions.html#:~:text=Well%20water%20has%20many%20advantages,water%20in%20almost%20any%20region

Wikimedia Foundation. (2024, January 24). *Shortages in Venezuela*. Wikipedia. https://en.wikipedia.org/wiki/Shortages\_in\_Venezuela#:~:text=Scarcity%20 became%20more%20widespread%20following,the%20government%20of%20Nicolás%20Maduro.

Wisdom, R. (2023, October 2). *7 things to know before building a Greenhouse*. Lawnstarter. https://www.lawnstarter.com/blog/landscaping/7-things-to-know-before-building-a-greenhouse/