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Yemen Food Insecurity

Yemen: Food Insecurity Driven by Conflict

The Middle East is often a point of discussion among many different news and media outlets. There has been a lot of conflict in that region and it is often brought to the public's attention. However, this attention seems to be a quick one liner across a screen that most don't pay mind to for more than a few seconds. This is why places like Yemen, in severe need of humanitarian help, are struggling to find resources and funding.

In 2019, Yemen was ranked the number one most food insecure country in the world (Lavoipierre, 2017.) The situation in their country seemingly gets worse every single day. The country has a population of 30 million people, and fifty-six percent of the population is considered to be in acute food insecurity (*Food Assistance*, n.d.) There are many factors driving the dire situation that is taking place in Yemen, but the largest driving factor is the country's internal and external conflicts.

In September of 2014, a terrorist group named *Houthi Shiite* overthrew Yemen's central government (Lavoipierre, 2017.) Ever since the government's overthrow, the country has been in extreme turmoil. According to Stephen O'Brien from the U.N. Security Council, "7 million people are one step away from famine." He also said, "What is worse, the threat of famine is driven and exacerbated by conflict." (Besheer, 2017.) In his opinion, the entire state of food insecurity in Yemen would not be a remote thought if it weren't for the intense stage of conflict within the country. In addition to the conflict within the country, there is also external conflict. Saudi Arabia, a neighboring country to Yemen, has been causing blockades on their bordering entrances making it almost impossible to supply the country with humanitarian aid ("UN Security," 2020.) Both of these factors have had huge impacts on the food security in Yemen.

While the internal conflict within the country is the largest catalyst for food insecurity, there are offshoot issues because of the civil war; the overall situation within Yemen has put this distraught nation in a very fragile state (Kadri, 2021.) Problems like food insecurity often take the shape of a system of science, meaning that there is often not one single thing causing the problem, and there is a wide range of solutions that may need to be completed simultaneously in order to fix the overall problem.

One of these problems is the war's impact on the agricultural industry, a very important food source for the people of Yemen pre-war. Yemen at one time produced a large range of products and people held many jobs within agriculture. There were farmers, herders and fishermen all raising food both for its home country as well as to export. One of Yemen's most sought after agricultural commodities, honey, has been one of the most disturbed industries by the war ("Roundup: Yemen's," 2022.) They would often ship their world prized honey all over the world for a lot of money. Now both the rearing of honey and the shipment of what can be collected has become almost impossible. The 3,000 year tradition seems to be dangling in the

balance of the never ending war ("Roundup: Yemen's," 2022.) Yemen's agricultural industry was then hit with an additional hardship that has been adding to the shortage of food available, Desert Locusts ("FAO Chief," 2020.) They are an extreme pest that will happily devour any plant products that have been raised for consumption. On top of this, many areas of agriculture have been destroyed by the aftermath of the continuous fighting within the country. So many parts of the industry ranging from livestock and plants to fishing have been put to somewhat of a standstill because rebuilding is impossible to do while the country remains in complete turmoil as it continues to be consumed by civil war.

Another factor that contributes to the poor health conditions of those who reside within Yemen is water quality. Over the last several years, cholera, an often fatal illness, has been plaguing the people of Yemen (Lavoipierre, 2017.) Cholera is caused by the water being filled with toxins, many of these the result of the war and its impact on the safety of the water. In 2017 alone, there were 360,000 cases of cholera that were reported; however, it is likely that that number was much higher (Lavoipierre, 2017.) A large portion of the outbreak is caused by malfunction in the sewage system. This malfunction has reached the water supply, exacerbating the illnesses that the poor water quality is causing (Iggulden, 2017.) The poor water quality adds to the food insecurity issues especially for those who become ill with cholera. Those who are ill with cholera have difficulty retaining any food that they consume and become extremely dehydrated (Iggulden, 2017.) Water is one of the most needed resources by the people who live in Yemen.

Economically Yemen is in a very fragile state. This instability has a huge impact on the food security in the country as well. Economics have several avenues of causing issues on food availability. For one, inflation is at a very high level in Yemen. For every single U.S. dollar, it would take 880 riyals, their main currency (Anonymous, 2021.) This is a 250 percent inflation rate from their pre-war value. This is a very large rate of devaluation. In addition to this huge amount of inflation, there has been a huge decrease in job opportunities as well as any opportunity to earn wages (*Food Assistance*, n.d.) One million civil servants have not been paid in many months (Besheer, 2017.) This trend has been the case in many areas of work. It is startling that there is little work available for people. Over the last year Yemen has seen economic growth of -5.0% (*Yemen*, n.d.) According to the 2022 Index of Economic Freedom, there is a \$1927 income per capita (*Yemen*, n.d.) Low income paired with high inflation leads to needs being met disproportionately compared to more stable countries. In addition, individuals may be getting taxed at a rate of 15% (*Yemen*, n.d.) There are currently 16.2 million people who are considered food insecure in Yemen and 20.1 million people need humanitarian assistance (*Yemen Emergency*, n.d.). These numbers are not likely to change in the near future because the conflict within the country is still raging and the economic situation just continues to get worse every single day. It seems that the only way these people will be able to survive is utilizing help from humanitarian organizations.

Many organizations are donating their time and money to help the situation, but the gap needed to fix the problem is far from being fulfilled. It is estimated by the World Food Programme, the 2020 Nobel Peace Prize winner, it would take 1.9 billion dollars to fully assist Yemen out of their current situation ("WFP Chief," 2020, "UN World," 2020). There are so many

different organizations working together to help the people of Yemen; however, the funding they need to solve the problem has been hard to come by.

The World Food Programme is one of the main humanitarian groups that works to help the people of Yemen with their food insecurity. While the World Food Programme is active in other countries trying to spread assistance, Yemen is their main priority and gets the majority of the group's attention. However, these organizations do rely heavily on the support of average everyday citizens who have the heart to make a difference in the world (Esha Sarai, 2016.) American people are one of the largest contributors to the programme that makes a huge impact on the lives of those in need of assistance (*Food Assistance*, n.d.). The World Food Programme provides many resources to those in need. First and foremost, they provide the people with food, water and medical aid. Secondly, they also work to help on the political side of the issue. The organization works with people on both sides to help work through relations to resolve the civil war ("Famine Relief," 2021.) These efforts have unfortunately not come to fruition. They also work through temporary cease fires in order to bring in humanitarian aid through the border and the sea ports ("Famine Relief," 2021.) On this end of things, there is a lot of paperwork that has to be completed and filed through in a timely manner in order for the items needed for humanitarian aid to be brought into the country ("Famine Relief," 2021.) Overall, the World Food Programme is a vital programme to the survival of those in need in Yemen.

The Food and Agriculture Organization is another humanitarian organization that works to help relieve the people of Yemen in their food insecurity. In 2020, their director allocated 100 million dollars towards the cause of feeding those in need. Not only is the Food and Agriculture Organization helping the cause through monetary donations, but they are also sharing agricultural knowledge and their time with the people of Yemen ("FAO Chief," 2020.) There is a wide variety of agricultural assistance that they are supplying. They are supplying seeds, tools and even pest control tactics to help them keep the desert locusts from devouring their crops. In addition to helping with their crop production, they are also supplying them with vaccinations and other treatments needed for the rearing of their livestock ("FAO Chief," 2020. Helping the people of Yemen stabilize their agricultural industry will directly help 4.2 million people ("FAO Chief," 2020.) A solid agricultural industry is vital to being a self-sustaining country; this is why groups like The Food and Agriculture Organization are so important in the food insecurity battle happening in Yemen.

Another group that has been providing assistance to the county is also one of the sources causing the overall problem. Saudi Arabia pledged \$204 million dollars in humanitarian aid for Yemen (Anonymous, 2021.) This seems like a fairly decent amount, and it is most definitely needed, but by same token, it is somewhat counterproductive. Saudi Arabia has blockades set up along its entrances that border Yemen. This is a huge reason for why it is extremely difficult to get humanitarian aid into the country. This is a huge issue and makes the work of other organizations extremely difficult.

Looking at the food insecurity issue in Yemen, there are so many facets to the problem. It seems like a huge system of science and an almost impossible undertaking. The kind of work that some of the current institutions are willing to pour into helping the Yemen people is absolutely amazing, but there is still so much more that can be done. The reality is that the solutions may

not be cheap, but when looking at the value of human life, I think the risk is well worth the rewards of helping these people.

The most ideal situation in Yemen would be for the conflict in that region to end. However, this is more of a far off wish as there doesn't seem to be an end to the civil war anytime in the near future. This means that we as young innovators need to look at other options to help fix the food insecurity in that country.

The way The Food and Agricultural organization is going about helping the people in Yemen will have the most promising impact for the future. Education is one of the most valuable tools in creating change. Educating these people on how to cultivate their products in a new way would definitely be effective under their current situation. I believe we need to send some of our leading agricultural minds there to help them determine the best way to rebuild their agricultural markets. There are so many different ways to look at solving the issue utilizing agriculture.

When viewing the water contamination problem, two solutions are clear. One is that their sewage systems need to be revamped. This would be a costly venture; however, it is very necessary to get the water clean and to keep it that way. Another solution would be to bring in a large scale filtration system. During a discussion at the Nebraska World Food Prize event, I was reminded by another student that sometimes big ideas, such as water filtration, could be fixed by increasing the scale of time tested inventions. This student talked about how in the past they would use charcoal to filter out water. This technology most likely existed centuries ago in Egypt and India (Kearns, 2007.) Many companies are starting to take this long lasting idea and put it to use to solve current day issues. The technology works because Carbon has such a large surface area that different contaminants attach to it (Kearns, 2007.) According to Aqueous Solutions, "...research and calculations suggest that a maximum of 9 kg (20 lbs) of pulverized charcoal is needed to purify drinking water for one person for one year (Kearns, 2007.)" Burning crop residue is a great way to source carbon, however this may prove difficult due to the disturbed agricultural state in Yemen (Kearns, 2007.) Both of these solutions are quite difficult to achieve, but they are vital to the overall health of those in Yemen.

Teaching those in urban settings how to grow food could also be just as useful as teaching those in rural areas. Educating as many people as possible to become more self-sufficient could decrease the overall level of humanitarian needs. Supplying people of both rural and urban settings with the tools and knowledge to be able to produce their own sustenance would be pretty costly in both time and money at the beginning, but I believe it is the option that will result in the most turn around. If the people are able to support themselves and their families needs, then they will be less reliant on other people. This will increase the overall level of knowledge and health within the country. When all of these people have the strength to care for themselves, then they can start to care for their neighbors. Hopefully helping to solve the issue of food insecurity within Yemen will bring forth social change and help to end the war.

One way to invest back into education in Yemen would be to focus on building effective teachers to influence those students (Lynch, 2020.) If humanitarian groups were able to send people into Yemen to supply the teachers within the country with enough knowledge, then maybe those teachers could spread that knowledge to their students. Providing the teacher with

professional development as well as curriculum with life-based skills can be a huge asset to students living in poverty (Lynch, 2020). This curriculum shouldn't be based on western standards, but rather catered towards skills that will be more applicable to the current state of turmoil within their country (Lynch, 2020). War torn countries like Yemen have a significantly harder time improving their education system due to the constant outside pressures. This is why groups like The United Nations International Children's Emergency Fund (UNICEF) exist. They believe that every child has a right to an education and they fight to help ensure that in war torn countries (*Education Under*, n.d.) The main goal of organizations like these are to ensure that education is not halted. Education is the key to breaking the cycle of poverty and abuse in countries like Yemen (*Education Under*, n.d.)

Fixing issues like food insecurity in Yemen will take a lot more than a simple one liner across a news source's screen. It will require driven and innovative people who have a desire to make the world a better place. The current situation in Yemen is a multifaceted issue; this means that it will require a wide reaching solution. Yemen remains the number one most food insecure country in the world with raging conflict. I believe giving the people the tools to become self-sufficient is the most effective way to decrease the food insecurity problem in their country. There are many driven youth around the world who would be willing to help, and I believe that food insecurity solutions lie directly in their innovation.

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