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Yemen: A country in conflict too often overlooked

Over the past eight years, Yemen has been involved in a conflict that has taken many lives. The heated conflict has left 21.6 million people in need of humanitarian assistance and 17 million people food insecure. Yemen currently has the worst Humanitarian Crisis in the world. ("Yemen Refugee Crisis"). Even though the Yemeni people are in dire need of assistance the international community has widely ignored the conflict. There are several key factors contributing to the food crisis in Yemen. They include water scarcity, ineffective farming, lack of sustainable energy, and shortages in foreign aid. The conflict is not the driving factor of food insecurity in Yemen. It is however what must be addressed first before real long-lasting solutions can be implemented in Yemen.

A Demographic and Geographic History of Yemen

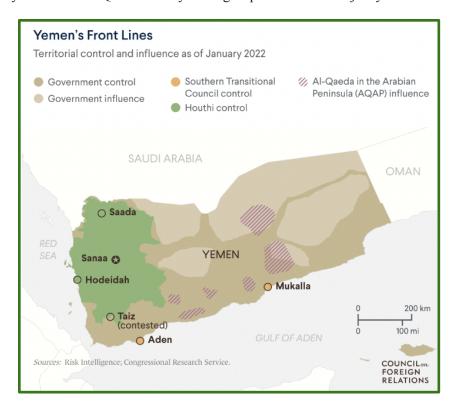
Yemen sits along the southern tip of the Arabian Peninsula. To the north is the desert of Rub 'al-Khali. To the south and west respectively there are the Red and Arabian seas. To the east, Yemen borders Oman. Yemen is an arid country, its soil is either sandy or loamy, not ideal for agriculture ("Yemen"). The effects of Climate Change mean that now, it's getting increasingly more difficult to farm. Yemen is prone to droughts and extreme temperatures, meaning crop yields are decreasing ("Climate Change Knowledge Portal"). Due to a recent drought that has lasted well over a year, Yemen is now also facing a water crisis. The majority of the water used in Yemen is groundwater, unfortunately, this is not sustainable. Groundwater is being used at twice the rate that it can be replenished. All these factors make it incredibly hard to farm within Yemen. However, 73.5% of people rely on agriculture for their income (Mohammed Ali Thamer et al.).

Yemen is a mostly rural country, with 75% of Yemenis living in the countryside. Families tend to be large, with the average family consisting of six members ("Yemen Human Development" 1). Even before the conflict, health care and education were lacking, specifically in rural areas. Over 14 million people didn't (and still don't) have access to sanitation facilities, which at one point led to a Cholera outbreak ("Being the Change in Yemen: Improving Integrated Water Resources"). Yemen's education system is also sorely lacking, falling further into ruin since the war. While public schools were available before the war, they were less popular than religious schools. Religious schools did not need a license from the government and were free of oversight (Nagi). This meant that education was not regulated, something that militant groups would use to their advantage in later years. Despite all this, Yemen was improving. Both infant mortality rates and fertility rates were decreasing as life expectancy continually increased ("Yemen - Place Explorer"). Yemen, one of the poorest countries in the Middle East, looked to be steadily moving in the right direction. However, that changed when the country became plagued with conflict.

A little history is needed to truly understand the conflict in Yemen. Yemen as seen today is a relatively new country. Northern and Southern Yemen only united in the 1990s. The first leader of the new Yemen was Ali Abdullah Sahleh. Sahleh, a Sunni Muslim, had been the military leader of Northern Yemen, a U.S.-backed government, since 1978 (Robinson). Throughout the years, the U.S. continued to support Sahleh despite calls from others in Yemen stating that he was corrupt. Yemen's economy took a hit in the years before the conflict, resulting in high prices, especially for fuel. During the Arab Spring, many people spoke out against Sahleh. Among them was the Houthi movement which originated in Northern Yemen. Their members consider themselves Shi'ites (The smaller of the two main Islamic branches) and called for recognition of Sahleh's corruption and action to fix Yemen's economy. Due to strong opposition from the Houthi movement an agreement was struck. Sahleh would step down from his role and in turn,

he wouldn't be prosecuted for his crimes. So, in 2012, Sahleh stepped down and fled to Saudi Arabia. Backed by the UN, Sahleh's vice president Hadi assumed the role of interim president. At this point, the Houthi Movement changed their position. The Houthis now supported Sahleh and opposed interim president Hadi. Hadi would soon follow Sahleh and flee to Saudi Arabia. The Houthis would take over Sana'a, Yemen's capital in 2014. Since then fierce conflict has plagued Yemen, with Hadi loyalists fighting against the Houthi for control.

The conflict in Yemen is complicated in part due to the number of key powers. As shown on the map below (Robinson), control in Yemen is mostly broken up between a few main groups. The government still controls a significant amount of land. However, in Northern Yemen, the Houthis dominate, controlling the capital. Other groups within Yemen include the Southern Transition Council (STC) and the AQAP, formerly known as Al-Qaeda. Jointly these groups control the majority of Yemen.



These organizations, fighting for control in Yemen, are backed by foreign powers. A Saudi Arabian-led coalition of Sunni-majority countries supports Hadi's government. These include such countries as Bahrain, Qatar, Morocco, Egypt and Jordan. The coalition has had a blockade around Yemen, limiting what can go in and out. This coalition is then backed by the United States. Currently, the United States is Saudi Arabia's top weapons supplier and it is often U.S. weapons that harm those in Yemen. The U.S. has carried out almost 400 air strikes on Yemen since 2002 ("War in Yemen | Global Conflict Tracker") Opposing this coalition is the Houthi Movement in Yemen backed by Iran, one of the only majority Shi'ite countries in the world.

Food Insecurity in Yemen

The conflict in Yemen has led to one of the world's worst humanitarian crises. Over four million Yemenis are internally displaced and ³/₄ of Yemen's population needs humanitarian assistance with 17 million Yemenis being food insecure (Robinson). In addition to this 90% of people in Yemen don't have public

electricity. While many organizations and foreign countries are trying to help those in Yemen, efforts have been minimal. The Saudi Arabian-led coalition has had an air, land, and water blockade around the country for much of the war. The blockade makes it significantly harder to get foreign aid to the 21.6 million Yemenis who need it ("Yemen Refugee Crisis"). In addition to this during the pandemic, faced with their issues, many countries cut back on aid, redistributing funding. Even the UN reduced food rations in January of 2022. Foreign aid is drying up even though the numbers in need are staggering.

The conflict in Yemen has greatly affected the children living there. Yemen has one of the highest rates of malnourished children in the world. 2.2 million children under the age of five need to be treated for acute malnutrition ("Yemen Emergency"). Of the estimated 21.6 million Yemenis in need of humanitarian assistance, 12.9 million are children. 9.2 million kids don't have access to sanitation facilities and/or safe drinking water. Lack of safe drinking water puts many kids at risk of preventable diseases. In addition to this, roughly 2 million children are unable to attend school ("More than 11,000 Children Killed"). For those who can attend school, many things have changed. In most Houthi-controlled areas, schools that used to be free now have tuition fees. For those able to pay tuition fees, schools in Houthi-controlled areas have become grounds for indoctrination.

There are many root causes of food insecurity in Yemen. There are, however, many things that can be done to address food insecurity in Yemen. There are ways to address the effects of climate change, arid soil, and water scarcity. However, it is important to understand how incredibly difficult it is to implement solutions in Yemen because the conflict is ongoing. The most immediate issue is the conflict in Yemen and this must be managed before any more steps can be successfully taken.

Steps Towards a more Food Security Yemen

Yemen is plagued with many problems. It will take years to correct the problems that the conflict has brought to Yemen. However, in the short term, foreign countries can take several steps to help those in Yemen and recognize their effect on Yemen. To start, the lack of media coverage of the world's worst humanitarian crisis is startling. The issues in Yemen need to be openly discussed so that policymakers are aware of the crisis. It is essential that the coalition also ends its blockade of Yemen. At a minimum more foreign aid should be allowed to enter Yemen. Countries also need to be willing to provide aid to Yemen. This cannot be put on the back burner, more funding needs to be given to help those in Yemen. Understandably, funding was cut back during the COVID-19 pandemic, however, we now must continue to assist Yemen.

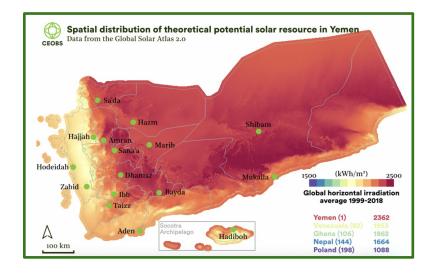
The United States of America owes a certain debt to the people of Yemen. Many of the bombs dropped in Yemen are American. While this is done in an attempt to battle the Houthis, it often just harms civilians. American citizens need to ask for more aid to be sent to Yemen. This can be done through petitions and election of representatives.

Nevertheless, Yemen cannot rely on foreign aid forever. Foreign assistance is necessary in the short term. However, Yemen must be self-sufficient to move forward. To address the food insecurity within Yemen, a more sustainable agricultural system must be developed. Yemen is an arid country, using up its groundwater and energy, by growing counterproductive crops.

One such counterproductive product is Qat which uses large amounts of water to produce. Qat is a stimulant and one of the main things farmed in Yemen. It requires a large amount of water and as a narcotic, does not help Yemen feed itself. The reason Qat is such a popular crop to grow is due to demand and prices. Qat can be sold for a large amount of money and many people in Yemen consume qat, therefore it is a way to make money in a tumultuous time. However, the growth of qat is detrimental to Yemen in almost every way. Yemen's first step towards an improved agricultural system must be the replacement of Qat with other crops. Qat requires the same environment to grow as coffee and many are pointing to a switch from the growth of Qat to coffee as a solution. Yemeni Coffee is world-renowned and used to bring in a huge amount of revenue to Yemen. However, due to the blockade and conflict little trade is possible in Yemen right now. While the switch from qat to coffee will be beneficial, it will not help support the 17 million Yemenis who are food insecure in Yemen at the moment.

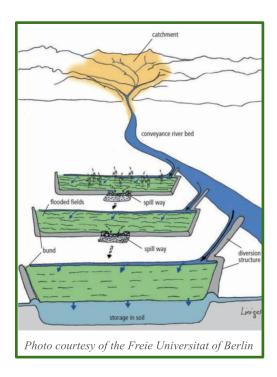
Yemen's climate is ideal for farming things such as dates, bananas, melons, grains, citrus, and figs ("Yemen"). The most immediate solution is to increase the growth of these nutritious goods. Many of these plants like dates and bananas require very little water, are a source of good revenue, and contain required daily vitamins. While dates and bananas use significantly less water than qat or coffee, Yemen's main water source is still groundwater which is quickly vanishing. Therefore, for any visible growth of agricultural productivity in Yemen it is imperative that Yemen finds more sustainable energy and water resources.

Yemen must find new water and energy sources if they hope to be sustainable. Since the 70s Yemen has relied on diesel-powered groundwater extraction ("Groundwater Depletion Clouds Yemen's Solar Revolution"). 80% of Yemen's power as of now comes from oil ("International - U.S. Energy"). This is bad for the environment and means that Yemenis must rely on the government to harvest the energy and provide it to them, something that the government has failed to do in recent years with 90% of Yemenis out of power. Yemen does have alternative energy sources available to them though, solar. As can be seen on the map below from the *Conflict and Environment Observatory*, Yemen is well suited for solar energy.



Yemen has extremely high levels of irradiance (The amount of radiant energy in a given area). Yemen in recent years has grown too reliant on oil and its government for energy. Solar energy can be implemented on a small scale so that Yemenis do not need to rely on their currently unstable government.

Additionally, Yemen's current water source is not sustainable and will present problems shortly. To preserve water, some say rainwater harvesting must be utilized as well as effective irrigation systems. While rainwater harvesting systems could be helpful, Yemen is in a drought, and even before the drought Yemen rarely gets over 5 inches of rain per year. Therefore, while rainwater harvesting may be beneficial, more attention needs to be focused on improving irrigation systems. Many believe that Spate Irrigation is the most effective given Yemen's situation. The idea is to divert what little freshwater Yemen has towards the crops, utilizing water available to them. Spate Irrigation has proven successful in many semi-arid places.



17 million Yemeni people are food insecure due to a myriad of causes ranging from water scarcity to ineffective farming methods. While the eight-year conflict in Yemen is not the driving cause of food insecurity, it is the cause that must be addressed first and foremost. Foreign nations must be willing to provide aid to the Yemeni people. Additionally, Yemen needs more sustainable agricultural systems. There are solutions to all of Yemen's food scarcity problems. But, it takes time and care to implement them. No real change can be made until the conflict in Yemen is over and aid to the Yemeni people is provided. Foreign countries must address their responsibility to aid the Yemeni people during this time of crisis. These are the steps that must be taken for Yemen to begin moving forward.

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