SAMPLE STUDENT PAPER

(Works cited using APA style)

Name School City, State Country, Topic

Title of Paper

Yemen is a Middle Eastern country bordering Saudi Arabia, Oman, and the Indian Ocean with a population of approximately 27.4 million people. Yemen has a total land area of around 530,000 square kilometers, with the center of the population lying in the temperate west and on the coasts in the two largest cities: Sanaa and Aden (Central Intelligence Agency, 2017). While agriculture tends to thrive in these regions, the arable land is restricted due to deserts spanning the country. Yemen also happens to have a largely Muslim population (99.1%). Divisions between Muslim sects have led to the country's militant Shia Houthi rebels and Yemen's current Sunni, Saudi Arabia-backed regime engaging in mass conflict. This conflict has lead to concerns such as ineffective education and poor healthcare. Approximately 1,600 schools are now unfit due to war damage and 1,900 out of 3,500 hospitals are either partially or completely out of commission (BBC, 2016). Most importantly, this culture clash has put the population of Yemen and its land in grave danger. The imports that the country relies on have additionally become very expensive due to blockades and deteriorating infrastructure. To assist the people of Yemen, the Yemeni Civil War must come to an end through diplomacy and the encouragement of post-conflict sustainable agricultural tactics.

During ideal conditions, Yemen's family structure is tightly knit and much larger than the typical American family. The average family in Yemen has connections with extended family through kin groups according to tribal descent and a patrilineal structure. The average household is large (especially in rural areas), consisting of 6-7 people. Their diet consists of three meals per day, with grains such as sorghum and barley making up a large portion through bread and porridge. Vegetables, dates, and occasionally meat are consumed during the evening, and varieties of tea and coffee husk brews are common. As for education, priority is given to men in society and all schools are gender-segregated, including universities (Advameg, 2017). However, Yemen's education system is currently very poor, as is its healthcare. Only 63% of primary school-aged students completed school in 2010, and current statistics say that only ¼ of third graders in Yemen have any ability to read (USAID 2017). Medical care as a whole is also extremely limited in Yemen as a result of the current armed conflict. Due to bombings and a lack of resources, only 45% of medical centers are currently operational at all, limiting access to quality care and future opportunity.

Agriculture is a key to providing some of these resources to Yemen's starving people. It is also incredibly important to Yemen's economy. Approximately 58% of the country's population is somehow involved in agriculture, while the industry itself makes up approximately 17.5% of the country's gross domestic product (GDP). Other sectors, such as service-based industries and commerce, make up less than one-fourth of employment. The government is also one of the country's largest employers. Agriculture is incredibly important to solving food insecurity issues in addition to providing employment in rural areas. Yemen has five distinct agricultural regions. The western mountain region and the highland plains region

of the country experience the largest amounts of rainfall, making these areas the most efficient for farming. Farms in Yemen typically focus on cultivating livestock and grains, such as wheat, barley, and sorghum. Cereals and tropical fruit (such as bananas, mangoes, and varieties of citrus) are very common in the coastal regions of the country, but the majority of the grains are grown on terraces in the highlands (Food and Agriculture Organization, 2017).

Farming practices in Yemen are fairly primitive overall, which contributes to the country's susceptibility to starvation during such a crisis. One great example is terrace farming, which is an ancient agricultural practice in Yemen where unusable mountain land in the more fertile highlands is made into patches that are useful for agriculture. In Daniel Martin Varisco's "The Future of Terrace Farming in Yemen: A Development Dilemma," he describes how farmers who practice this take into account the location of springs, steepness of the slopes, and other factors to prevent erosion (Varisco, 1991). Additionally, subsistence farming is common in Yemen, with many farmers either owning small plots of land or acting as landless tenant farmers on commercial farms. The majority of the crops grown are used by the farmers for personal use and consumption overall.

Unfortunately, Yemen has extensive limiting factors with developing its agricultural sector and increasing food security. While rainwater-based regions have generally solid output, the use of groundwater is a highly contentious issue. Some aquifers are being depleted of one to four meters of water annually, while some even lose up to seven meters per year. Additionally, only 1.61 million of Yemen's 45.55 million hectares (ha) are considered to be arable. This has led to increased terrace farming in heavily populated areas. Because of limited space, farm production here can only expand through increasing productivity of farming methods, which is complicated by traditional inheritance laws. Finally, production of qat, a stimulant that causes psychological dependence and is a traditional cash crop in Yemen, is rapidly increasing, which has led to it taking up close to a fifth of irrigated land in Yemen (22.3%) (UNDP, 2017). However, qat requires a great deal of water to cultivate, taking up slightly less than a third of the country's groundwater and agricultural water uses. Despite having a negative economic impact, qat is a source of income and cultural value for lower-class farmers across Yemen, making it a sensitive subject to tackle. However, no external factor has exacerbated these issues than Yemen's current Civil War.

The war began in late 2014, after an uprising to replace the authoritarian president of Yemen led by a Shia group called the Houthis. In retaliation, Saudi Arabia and a coalition of eight other Middle Eastern Sunni countries launched an air campaign to restore Abdrabbuh Mansur Hadi's (the president of Yemen) Sunni-focused government. The conflict between the Houthis and the Hadi's combination of pro-government forces and a Sunni alliance has led to mass shortages of goods across the country. While food insecurity was already an issue, the systematic deprivation of food has led to 82% of the country's population requiring humanitarian aid, with approximately 14 million of those being specifically from food-related causes (BBC 2016).

These insecurity issues stem from several conflict-related factors. There is evidence of Saudi airstrikes targeting agricultural land in Yemen, with data collected by the country's agricultural administration showing a clear focus on water and food storage systems (Fisk, 2016). This increasingly puts Yemen's limited amount of arable land (2.8% of the country) out of commission, limiting both food and

employment for much of the country, decreasing the ability of people to pay for goods. Additionally, Yemen imports around 90% of total staple foods (UNDP, 2017). The enforcement of a naval embargo by the Saudi-led coalition has led to a lack of fuel, which, when coupled with the continued damage to infrastructure such as roads and bridges, has severely limited transportation of goods to both rural and urban families. To make matters worse, the war does not appear to be ending, with United Nations-led peace talks breaking down in four months. This, in fact, lead to increased casualties, exemplified by the 3.3 million pregnant women and children now suffering from acute malnourishment. This is a 63% increase from when the war began, showing that the severity of the situation continues to increase in Yemen. It is clear that this conflict must end as soon as possible for the good of Yemen's people.

In the end, the war's resolution would lead to several positive effects in Yemeni society. The destruction of viable farmland in the country's coastal and highland regions would end, and farmers would also be able to safely return to their fields, allowing Yemen to continue to produce agricultural goods. The rebuilding of infrastructure could create new jobs that would allow Yemen's people to afford the imports that they currently rely on. The ending of the Saudi-controlled embargo in Yemen's Red Sea ports would also let these imports into the nation, opening the country up to supplies of fuel to increase transport of goods and allow healthcare and education to run more efficiently. These improvements, however, will soon become out of reach. With the 31st highest population growth rate (2.37% annually) in the world, and over half of the population of the country at or under 18 years of age, Yemen's relatively young population continues to expand as resources dwindle (Central Intelligence Agency, 2017). The habitual trade deficit of Yemen leads them to rely on goods with massive price swings keeping an entire generation of youth, approximately 14 million Yemenis, stunted from malnutrition. Ending the war would, in short, lead to an influx of supplies that could feed the country's millions of starving and internally displaced people, increase economic opportunity, and open the door for shifts in the agricultural output and food supply of the nation. As for how to end it, there are multiple ways that a conclusion to the war can be achieved diplomatically.

Ultimately, while this is a complex issue, the crisis in Yemen can be resolved through additional foreign intervention and the prioritization of agricultural sustainability by the legitimate government regime. First and foremost, the Yemeni Civil War must end. While prior peace talks have failed, the United Nations (UN) must continue to push them to promote understanding between the Saudis/pro-Hadi forces and the Houthi rebellion in an effort to re-establish Hadi's government as legitimate in Yemen. The conflict seems endless unless the Houthis submit to UN Security Council Resolution 2216, as described in the UN's transcript of the proceedings entitled "Security Council Demands End to Yemen Violence, Adopting Resolution 2216 (2015), with Russian Federation Abstaining," ordering them to lay down arms and evacuate their controlled areas (UN, 2015). In the meantime, organizations such as the United Nations, NGOs, and world leaders such as the United States must continue to supply crucial humanitarian aid to the country. Recently, the UN and associated humanitarian groups launched an international appeal to acquire \$2.1 billion to provide assistance and supplies to civilians throughout the country (United Nations, 2017). This is the largest contribution ever sought for the war in Yemen, going a long way to bring medical supplies through the World Health Organization and food and water through UNICEF to those caught in the middle of the conflict.

The United States, despite assisting the Saudis in the war with intelligence, have given generous aid to the Yemeni people, including a gift of \$137 million in April of 2016. The United States (US) and the United Kingdom (UK), influential countries which have a stake in giving the Saudis intelligence, should take a stand against Saudi Arabian human rights abuses by ending these intelligence efforts and working to supply further monetary assistance to groups such as the UN to combat this conflict while ensuring that our supply of goods such as oil from the Saudis remains secure through negotiations and an amicable ending of US involvement.

The UN could additionally deploy peacekeeping troops alongside these supply drops to both curb the spread of conflict and to mediate between pro- and anti-government forces in besieged cities such as Taizz. However, even after the conflict has ended, the situation regarding food supplies will remain the same. Yemen must prioritize increasing crop yield, limiting groundwater usage, and working to stop production of qat.

The Ministry of Agriculture and Irrigation, which only receives 1% of the Yemeni government's budget, previously used government subsidies operating through the Agriculture and Fisheries Production Promotion Fund (AFPPF) that allowed limited numbers of farmers to access more advanced irrigation and water control implements. These subsidies not only brought this irrigation equipment down to 30% of its normal cost for farmers, but the Ministry also constructed 2967 water structures (with another 413 on the way) in 2012, including dams, levees, and diversion canal (UNDF, 2017). This investment, while expensive, needs to continue, as it heavily limits the continuous usage and depletion of groundwater aquifers in favor of sustainable, surface-based water reservoirs. The Yemeni government should divert funds to this department as a method of constructing a more sustainable agricultural lifestyle for the people of Yemen to prevent setbacks such as desertification in Yemen's limited farmland.

Qat production also must be greatly restricted. While it causes both health and economic concerns due to its status as a stimulant and its addictive properties, qat realistically has a cultural and economic value to rural farmers that is too large to allow for immediate action. Negative advertising campaigns administered by the federal government could gradually show Yemeni society the disadvantages of qat growth and consumption. Because only a small segment of Yemen's population, as seen in the findings of the CIA's World Factbook, has regular internet access (25.1%), posters, billboards, while advertising via technology could be used, speaker tours with representatives from the Ministry of Agriculture and Irrigation, pamphlets with information distributed in government buildings and in schools, and other advertising methods using minimal technology are essential to ending Yemen's reliance on qat.

Tax cuts on property could additionally be given to farmers who put a focus on commonly farmed resources such as barley and wheat. These factors would gradually both reduce the demand and the supply of qat at the same time, making it economically advantageous to place the agricultural factors of production in the hands of government-controlled farm industries, such as the wheat and potato businesses (UNDP, 2017). Ultimately, this would lead to both a decreased output of qat and an increased output of food, limiting Yemen's dependence on imports whose price swings put them out of the reach of the subsistence farming base of the country.

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