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USA, Factor 2: Water Scarcity

Jordan: Water Scarcity Survival

Within our generation many environmental issues have arisen. A major issue that is trending all over the world today is water scarcity. "Water scarcity is a lack of sufficient available clean water sources that would meet the needs of that region". In the Middle East, the country of Jordan suffers from severe water scarcity and depletion. There are many efforts contributing to decreasing the rate that water scarcity is spreading across the region. The solutions I propose are to improve agricultural decisions such as investing in moderate crops and promoting knowledge (education), these solutions should provide community programs that promote the knowledge and awareness of modern day issues in their country. These solutions can potentially contribute to aid in promoting the wellness for the people of Jordan.

The form of leadership there is a Parliamentary Constitutional government. Many aspects of the government are free enterprise, meaning that the citizens get their earnings the best way they can. Many citizens participate in trying to sell their goods to those in their communities and also to a tourist that may travel. Other alternatives are working as farmers or factory workers.

On average, each family receives a wage of "300-500 USD a month" (United State Dollars). Due to the social unrest, there in the country of Jordan many citizens migrate for security in northern Jordan (www.mercycorps.org). These migrations result in a decrease in the stability of the families and a decrease in employment. Many families struggle to find access to food and clean drinking water. There is little to no electricity in the homes of the Jordan.

Rural areas in Jordan are very dense. Many individuals live close together, because of the density there is a higher risk of disease due poor sanitation.

Jordan is nearly landlocked and providing water for people of Jordan and the crops there is extremely difficult. People of Jordan typically receive their food from local farmers. Farmers struggle to provide enough for their families and to support the population. A typical family size is 4-5 people per household in that majority of the members are under the age 16. Jordan's' main supply of water is water "mainly from fossil water and ground water (Shellie and Zara basins)". Due to the depletion of water, many other issues form. In particular agriculture.

Solution 1: Improve agricultural decisions

Agriculture is the "practicing of farming". In Jordan "65-75 percent of water is consumed by agriculture" (www.export.gov). About 15% or less of the population works in this sector. Currently, In the country of Jordan there is a population over 7.9 million and growing 2% annually (www.worldometers.com). In addition, health care there is dependent on local village clinics. There in Jordan "16.32% of the land is rural and 83.68% is urban" (tradingeconomics.com), out of the total mass of the land only 25% of the land is arable.

Due to the arid climate in Jordan, there is an insignificant amount available of water sources. As the demand for water for agricultural and commercial purposes constantly increase, this begins to create a strain on agricultural harvesting. The average farm size is 4.2 hectares (www.tradingeconomics.com). Daily life for a Jordanian includes tending to their families' basic needs. In example, a daily meal for a Jordanian would include various types of grain, lamb/chicken, vegetables, or fruit. Which is severed mid-day. This could also include children going to school and some working on the farm. Major exports and

crops here are wheat, barley, olives, fig almonds, apricots, and grapes (lrs.ed.uiuc.edu). Some of the listed crops are considered intensive water crops. Intensive water crops are crops that require large amounts of water to grow. These crops can potentially deplete the land it's growing on and the water source.

Drip irrigation. Drip irrigation is the "the slow precise application of water with nutrients that goes directly to the plant" (<https://www.dripirrigation.com/>). Drip irrigation is important because it monitors the amount of water being released. In situations like so, where water is scarce its essential to practice water conservative methods. In Jordan, the main Usage of drip irrigation is located in the Jordan valley. But, because water sources are facing major depletion, less and less water is available. Which leads to less and less drinking water and water for crops (agricultural purposes). There some various forms of irrigation such as surface irrigation (water distributed by gravity), manual irrigation (used with hoses), and many other

My solution to help the country of Jordan would be to invest in more of a moderate crop(s). These crops are recommended due to them requiring less water to grow. For some suggestions alfalfa, barley, oats, bean, and various other crops that require less water. To implement my solution the government could gradually introduce these moderate crops to the local farm lands. Since the majority of Jordan is now urbanized, citizens could also begin roof top agriculture using drip irrigation. Planting crops on the roof tops is a direct impact solution to the people of Jordan. This way also allows the water that is distributed to be monitored. These solutions can potentially lead to an increase in agricultural production and use less water in the process.

Citizens of Jordan could also help my solution by monitoring water usage and only distributing what's needed. Organizations that helps face the agriculture strain are: 'FAO' (Food and Agriculture Organization of the United Nations), Care organization (www.care.org), IDEAS (<https://www.ideasworld.org>) and various other organizations. To acknowledge the finances, the government should take responsibility in funding this project. Since the government controls many aspects of Jordan, it should be the outlet. The government of Jordan should take care of its people and its future.

Solution 2: Promoting Knowledge (Education)

When trying to solve a global issue you first need to understand it. To be educated is to be informed and to be aware. The government of Jordan "attempts to provide a school for 10 or more school-going children in a village" (<http://www.kinghussein.gov.jo>). After attending basic school, there is an opportunity to further education. This could be attending college from home or abroad. Less than 3% of the population continues on and are able to afford a higher education. (<http://unhcr.org>)

In Jordan, children begin school starting at age 6 ending at age 16. This is a result of improper waste disposal, access to clean drinking water, and poor water sanitation. Many of these of issues arise due to rusted and broken pipes. Furthermore, this effects education because there is a lack in availability of water in which is essential for the young growing minds and to all life. To address this issue, the government should improve waste systems and carry out on water treatments by replacing the old pipes with newer pipes. This will be beneficial because assets can be focused more on education and the wellness of the Jordanian people.

In addition, Many families lack access to education due to social unrest. Presently, in Jordan many are rapidly moving north and many are refugees. These refugees began seeking permanent placement, so those that are “native” dislike the new comers that has arrived in their region. This causes issues because students and teachers began to have conflict and resulting in harsh punishment and unequal treatment.

My solution is to improve education and awareness, to educate and invest in the youth. Investing in the in youth will help the future of Jordan. This would be a great long-term solution because raising a generation to gain understanding of the problems that goes on in their country and in the world, can help problem solve effectively and face the challenges appropriately. To put this suggestion in effect a youth program could be formed called “I.L.N.B” (Investing in Lives Now and Beyond).

Within this program children can attend and go through a series of skills to learn. The series will range from basics skills such as learning to read, write, and comprehend to actively searching for solutions to face water scarcity and applying them. Locals can help implement this solutions by actively participating and practice the skills learned. Also, share and pass on the knowledge. When thinking of who should be responsible and provide funding, the government should take full initiative. This is because education is one of the most important components that makes a country and help the country thrive. Without effective education, Jordan with struggle with great cost. In developing countries, public education is not free. This program can provide the necessities to face day-to-day issues now and beyond. Education is the path to success.

In conclusion, there are many things wrong in the world. We know how to find the problems, it’s time we started finding some solutions. In Jordan, water scarcity is a major issue that is threatening life. Many issues such as poor sanitation, and water quality are some results of water scarcity. Without water, there is nothing. So, sustaining what’s left is very important. There are many outstanding solutions. My solutions to make Jordan’s a bit easier is to harvest crops that require less water, Invest in education, and advanced irrigation. Jordan is in need of help. Minute by minute and day by day precious water is wasted. The country is struggling to survive and make way. But, when we work together we can thrive. One for all and all for one, it’s up to us if we will help pave the way and get the job done!

Reflection

The solutions that I have chosen are flexible and can fit the essential needs for the people of Jordan. When it comes to managing and leading some of the projects those in the government shall oversee and monitor the effeteness. This project can be sustainable in that the knowledge and the skills learned shall be passed on from generation. With water scarcity trending, all over the world we need to take the initiative and and began now.

As a student and doing this research I have learned that there are many things wrong in the world. But, working together to figure out a solution is what’s important. Also, I’ve learned that before a problem can be solved it first needs to be understood. When addressing an issue regarding food insecurity, you have to think of all possible things, many global issues are connected to food insecurity. From water sanitation to water scarcity. During my research, I first analyzed the problems. In this I reconciled that many problems can arise from something so simple.

With water scarcity, everything is affected. But, I Then went on the find solutions, I then realized that it’s just as easy or simple to consider the solutions. When approaching these solutions, you have to be mindful of their outcomes. Also, how does it benefit the people of the region...the world. Everything that is done whether its big or small counts and one induvial can make the slightest difference. So, never give up of finding solutions, never give up on trying. One by one we can all pitch in and help each other all

over the world sharing one idea at a time. We will persevere through this journey and through our struggles. This research has opened my eyes to all possibility.

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