Parker Trumm Cascade High School Cascade, IA Senegal, Factor 9: Water and Sanitation

## Senegal: The Fight for Cleaner Water.

Senegal is a country that is located in extreme west Africa. The country's area is approximately one hundred ninety-seven thousand square kilometers. In comparison, the country is slightly smaller than the state of South Dakota. It is a country of over thirteen million. Senegal has two main seasons, a tropical, hot, and rainy season, which is during the summer months, and a dry season, which is usually hot and dry, during the winter months. The best natural resources this country has is fish, phosphates, and iron ore. The country is mostly composed of low, rolling hills. About twenty percent of the land is arable land. The rest of the land is used for other purposes. The country has access ten trillion gallons of water each year. This is small compared to the U.S., which has over eight hundred trillion gallons of water access each year (*Central Intelligence Agency*).

The household of a usually Senegal house includes many people. There is usually extended family in one house. Including the parents and children of the parents, grandparents, cousins, aunts, and uncles are often found in the same household. The male usually is the one who works outside, but the culture is starting to change toward both parents working (YFUUSA). Children go to school during the day, also, for about eight years (Central Intelligence Agency). Although there may be many generations in one household, the average is five (Clean Cook Stove). This number almost doubles the average household size in the United States, which has a household size of a little over two and a half people per household. Although a family may not necessarily be five, but this fact shows that in Senegal, houses could be crowded because of the many generations that are living under one roof. In America, most households only contain the mother and father, and the children they have. In other countries like Senegal, though, this is not always the case. There could be three, maybe four generations in one house. There are the grandparents, the parents, the children, and sometimes even grandchildren. This is almost unheard of here in America. The children usually move out after college. In developing countries like Senegal, there may not be enough money to move into a different house. Some, of not most, Americans take having a house to just their family for granted when the truth is that the people in America and other developed countries are rather lucky that they live in place like the U.S.

Malnutrition has raised in Senegal the last couple of years. In the last couple of years, malnutrition has risen to 20% for children under the age of five, while the percentage of children under twenty-six months has risen to twelve percent ("Child Nutrition"). This leads to almost fifteen percent of children under five years old that are underweight compared to what they should be (Central Intelligence Agency). At the age of fifteen, only about fifty percent of the kids can read and/or write (Central Intelligence Agency). Only about twenty percent of the population has access to health care ("The International"). On October first on 2013, Senegal began a health care movement which will benefit almost 2.5 million children under five. The health care is free to users, and the health care completely covers all costs of health related expenses ("Press Centre"). In the United States, very few people know how it feels to go hungry every night. Most people have more than enough food every day. They have food stocked up in refrigerators and freezers to last their family days. I am one of those people whose family has enough food to last them quite a while. I do not have to worry about where my next meal will come from. If I get hungry, all I have to do is walk to the refrigerators or pantry and grab a quick snack. There are many people like this, not just in America, but also in many other developed countries, like England and France. A lot of countries like these countries have nothing to worry about when it comes to food, for most of the people in the country. No country can be perfect when it comes to food security. Although in countries like the

United States, most people have plenty of food. For other countries though, the opposite is true. In some countries, most people do not know where their next meal is coming from.

Farming in Senegal provides about fifteen percent of the Gross Domestic Production in Senegal. Over three quarters of the work force goes into agriculture (*Central Intelligence Agency*). The average size of a farm in Senegal for an individual is six hectares ("Annual Conference"). This is about fifteen acres. This is very small when compared to farm averages in the United States. The average in the United States is about four hundred fifty. Iowa's average size is a little more than three hundred fifty. These are both quite a bit larger than the average farm in Senegal. This number gets quite a bit bigger in the U.S., though. Looking west for average farm size by state, the number rises to over two thousand in some states. The states being bigger than Senegal have a little bit to do with it. When comparing Senegal to South Dakota, which is slightly larger than Senegal, there is over a thousand acre difference. What does all of this mean? This means that there are a lot of people trying to produce their own food, and they only grow enough food for themselves, not necessarily trying to get enough food for everyone in the country. Because everyone tries to only grow enough for themselves, there is not enough food to pass around. This is especially true when there is a bad season, whether for weather, or maybe a bug invasion. Here in the United States, most people do not worry about their food because they have enough of it. This allows farms to go bigger and farm to make a large profit. It also means that not everyone has to grow their own food, which could eliminate the smaller scale farms, like the ones in Senegal. The Senegal people do not always have enough food for the next day, so they try to find way to produce their own food. This is a reason why there are smaller farms in Senegal. Fifteen acres is all that they need to feed themselves through the next year.

The major production from Senegalese agricultural farming comes from peanuts, millet, and corn, while animal production comes from cattle and poultry primarily. One agricultural practice that Senegalese farmers are using is only planting a section of their land each year ("Low-Cost Farming"). Instead of using the whole farm to grow plants each year, only a section is used. It has been shown that by practicing this, there is less soil erosion, and is producing a higher yield. Because of the less soil erosion and run-off, the land is better able to keep and replenish its water and its essential nutrients. In return of the retained water and nutrients, the yield is better, too. This is shown through the last year of farming in Senegal. Although there were extreme drought conditions in the farming sections of Senegal, the yield of the crops actually rose quite a bit because of this technique ("Low-Cost Farming"). Severe droughts usually impact the yield the opposite way, sometimes destroying a whole crop. The yields in the United States have not been as good recently because of the extreme droughts that have taken place the last couple of years. The effects of the lower yields were seen with the market price of corn. The last two years have been record years for prices not only for corn, but also for soybeans. It is amazing that Senegal, which does not have near the technology that the United States has, can have better yields than the year before, even though this year there was a serious drought. This could be a sign to come that better yields and more produce could be in the future for Senegal, which it could use to lower the malnutrition levels in the countries.

One of the biggest natural disasters that could happen to a farm is a drought. During a drought, crops do not get the amount of water that they need to survive and produce a quality amount of food. This is a major barrier that limits the productivity of farms. There is not much that a farmer can do when a drought hits. They just have to hope and pray that rain comes and it does not affect the crops too much. Technology would also be a thing that is a barrier. A way to counteract the droughts is to have a good variety that is better in droughts than the varieties that are being used. Senegal, along with other African countries, does not have the latest technology that countries like the U.S. have. This could hurt the possibility of better yields in the future for Senegal. Not having the money to get the technology needed could be a reason for this. Unemployment is at an astonishing forty-eight percent, which leads to almost fifty-five percent of the population under the poverty line (*Central Intelligence Agency*). These statistics

make Senegal in the top twenty percent for percent of people under poverty line, and in the top ten for unemployment rate "Population Below". Money is a big issue in Senegal, which could in return not open up the opportunity to get technology to help against natural disasters, like droughts.

Education is one thing that is lowering the amount of working people in Senegal. The Senegalese government is trying to boost the education levels in Senegal, though. They are doing this by setting up country-wide nurseries and offering free education (*Our Africa*). This has helped out with the amount of kids attending school. Even though the push is working, still only three quarters of children are attending any sort of school, and only one in ten kids attend secondary school (*Our Africa*). Supplies are short in Senegal. They do not have all of the materials that they need to give a good education. For example, there is a shortage of textbooks in the local languages (*Our Africa*). Of course, though, poverty is a big part of children not getting the full education. There is a high dropout rate in Senegal. Most of the children who drop out try to get apprenticeships. Even with the apprenticeships, the overall unemployment rate is still very high. Poverty is a major barrier that is lowering the access to food and adequate nutrition.

Clean water and good sanitation facilities are important to good health. If these two items are not taken care of, there is the chance of higher risk of diseases. Staying immune to diseases is especially important for a country with less than one physician and less than one hospital bed per one thousand people *(Central Intelligence Agency).* For the most part, people in urban areas have access to improved water sources. The people in rural Senegal, though, are not as lucky. The difference between the two areas is about thirty five percent, with urban Senegal having about ninety-three percent of the population having access to improved water sources *(Central Intelligence Agency).* The overall population with access is about seventy-three percent. The sanitation facilities are not as great, though. Only fifty percent of the population has access to improved sanitation facilities *(Central Intelligence Agency).* If a person would live in an urban area, though, they have a better chance of getting access to better facilities. There is a very high risk of diseases because of the water quality and sanitation facilities. A couple of diseases that a person could get include hepatitis A, schistosomiasis, and thyroid fever *(Central Intelligence Agency).* Because of the few physicians and hospital beds, once a person gets the disease, it could be hard to overcome it. If infectious diseases were to hit, it could be hard to control because of the poor sanitation facilities.

Fortunately, both water and sanitation is on the rise. It has been a steady increase since the nineteen nineties ("An AMCOW"). There are many actions that are going on in Senegal. One action in rural Senegal is maintenance of water pumps and monitoring these pumps ("An AMCOW"). Doing this will help by making sure there is continuous access to clean water in Senegal. An action in urban Senegal is to secure more water to the largest urban areas, including the capital Dakar ("An AMCOW"). It would be important that the major cities get water because this will increase the moral in the cities, and it could set an example to Senegal that they can get clean water to large amounts of people. A big thing for the sanitation facilities is to make sure there is enough funding to improve the facilities ("An AMCOW"). In order to get better facilities, there has to be money there to get the better facilities.

One thing that could help Senegal out greatly is funding money towards the maintenance for the water and sanitary supplies. It could be helpful to ask other countries for help, too. People in the United States have helped out in many places with their water supplies, so we could help Senegal out, too. Getting people in charge of certain areas will help keep out the clean water supplies. There could be workers that go around and try to help maintain certain facilities. What the WSP and UNICEF are doing in Senegal are great ways of improving these facilities. If more countries could donate money to this operation, this operation could be just what Senegal needs. The people in the communities need to support what the national government does. They should want to help out wherever they can. They national government needs to recognize how serious helping out the water and sanitary supplies is in the country. They should realize that this is very important to the people in Senegal. The government needs to be willing to help out wherever possible to make their country a better place. Every family should help out when they can. If there is work to be done in the family's area, they should help out because this in return will help them out.

Senegal has a lot of trouble with poverty and unemployment. Because of these two reasons, clean water and clean sanitation facilities are not always available to these people. A lot of people try to make a living off of farming. There are a lot of people whom are trying to grow their own food because they cannot trust that they will receive another meal unless they grow it themselves. Poverty is one of the biggest barriers in Senegal. Lowering the unemployment rate would help this. It is also important that people find ways to get their kids to school so that the children have a better chance of getting a good job that they could have for the rest of their lives. It all leads back to how poor the country is. The government needs to find a way to get more money flowing within this country, because the people probably will not be able to do it by themselves.

The health of the people in Senegal also needs to be a big thing that the government is looking at changing. There is a very high risk for diseases in Senegal. This could be because of the poor sanitation facilities, or the lack of people being able to get clean water, or both. Funding would go a long way in improving both of these. It also does not help that there is less than one physician and less than one hospital bed per one thousand people. If a person had enough money, they could try to go and get an education to become a physician. Hospitals should come about by more people in the nursing and doctor business. Poverty, though, is the number one problem in Senegal. The government and other groups need to find ways to get more people money, or else Senegal could have a lot of problems for a long time.

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