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Niger, Factor 1

The Republic of Niger is a country of despair and poverty. Niger is the ninth poorest country in the world. The average Nigerien lives on less than one dollar per day. The women of Niger often must travel to a nearby town on a daily basis to retrieve clean water from a shared well. Niger has struggled for thousands of years to maintain civilization. In the 1960's the country suffered from one of the worst droughts in history. During this time thousands of lives were lost due to lack of health care and adequate food supply.

The men are responsible for bringing home food; the staple food in Niger is millet. This crop is dependent on good rainfall; unfortunately good rainfalls are extremely scarce due to the fact that nearly two thirds of Niger's land is located in the Sahara dessert. It is an agricultural based country although it has some of the worst crop yields in the world. The average farm is five hectares; this is equivalent to twelve acres. Common crops grown consist of millet, sorghum, and cassava (Rates). The government has attempted to encourage the growth of cash crops, but with only twelve or less acres the farmers have no incentive to grow them when they have a family to feed. Niger also struggles in the production of cash crops due to poor communication; although French is the official language of the country many tribes speak their own language. Less than ten percent of Niger's population is capable of reading, so any form of news is passed on by word of mouth, this often causes miscommunication and the news often takes weeks to spread throughout the villages.

The Republic of Niger loses thousands of lives per year from treatable illness such as the common cold and only one-third of their population has access to health care (Niger). The population of Niger in 2011 has reached 16.5 million, this means nearly 11 million people go without health care. In 2010 there were only 300 licensed doctors in the entire country. To put that into perspective, in the United States there are 300 doctors for every 100,000 people (Niger). The government is attempting to improve on this matter by locally training doctors and setting up health huts throughout the country. But the government has stated that there is very little they can do for their largest health problem which is malnutrition.

Niger is a country based on subsistence farming. This type of farming is where crops are grown only for the purpose of feeding their family, and therefore the farmer makes no profit from his harvest. This is one of the largest if not the largest reason there is no economic development taking place in the country. Another reason is that Niger is still using primitive farming techniques such as planting crops by hand. In 2005 there were 130 tractors in use throughout the entire population (Nigeriens). Few families are capable of keeping draft animals on their farms because they can hardly feed themselves let alone the large animals. Nigeriens also have no way to water their crops due to being located in the middle of the dessert. This causes inconsistent yields allowing families no reassurance of having food to put on the table.

The Nigerien people have several factors preventing them from developing economically. Without steady water for crops the people will never have enough food to feed their families, which prevents the production of cash crops such as cotton. If the farmers find a way to irrigate water to their crops they will still have no way to fight common diseases that take over crop fields such as mildew and kernel smut. Once the people have steady crop yields they will still be resistant to growing cash crops because there currently is no incentive to the production of them. They use the little land that they have to produce the

crops necessary to feed their family. If they would in turn decide to grow cash crops on that land, there would be no acreage for their families' food supply. The Nigeriens also will struggle to sell these cash crops because of the language barrier with neighboring villages. These factors have solutions but require cooperation of the government and farmers.

The future of agriculture in Niger depends on the introduction of genetically modified crops. Genetically modified crops are crops resistant to disease and drought; these are two key factors in improving the crop yields in Niger. In 1944 a doctor by the name of Norman Ernest Borlaug took the job of geneticist and plant pathologist his duty was to research wheat yields and production methods in Mexico (Norman). Within twenty years of Dr. Borlaug's employment he had produced disease resistant wheat (Norman). This was one of the greatest discoveries in agriculture and as years went by, crop yields increased and starvation rates decreased. Scientist's have successfully produced strains of drought resistant crops, but they currently have not been released to the farming population. Once these crops are released to the farmers crop yields all over the world will begin to increase.

The introduction of genetically modified crops would improve Niger's crop yields drastically. Niger is currently at such a primitive state of farming that statistics show that this introduction could nearly double or triple the crop yields in Niger (Pioneer). In the northern region of Niger the average rainfall is eight inches per year. This means during some months their crops may be getting as little as a half inch or less of rain. This makes the production of crops nearly impossible, but through research scientists have been able to grow drought resistant crops at a constant rate on .35 inches of water per month. This will allow Niger farmers to get more for less. The people will have larger harvests on less land. Disease resistant crops are already on the market this means that the thirty-five percent of crops lost annually from disease in Niger could have been saved. Scientists believe that in the next five years they will be able to breed drought resistant crops with disease resistant crops, creating in theory the perfect crop.

The large harvest Nigeriens will have once the modified crops take hold will allow them to grow enough food on less land. This allows room for cash crops. Currently there is no incentive to growing cash crops. This can be solved by teaching the villages the official language of Niger. French can be taught through out the entire country at little cost. The government is already dispersing health huts throughout the entire country. If the health aids know both the village language and French they then would be able to teach the village people French. Within a years' time the people of Niger would be able to speak enough broken French to communicate with nearby villages. This would allow for large markets were farmers could sell their crops, therefore encouraging farmers to grow more cash crop causing a cash flow.

This sort of agricultural stimulus package would require the government to start the cash flow by purchasing the genetically modified crops from farmers. The government is currently putting all of their money into health care. What the government is not realizing is if they put some of that money into crop production the farmers would be able to produce larger yields. This would cause their biggest health problem, malnutrition, to decrease. With malnutrition decreasing the people will grow better immune systems causing fewer illnesses. The government would see that as the crop yields increased the people would have more money to spend, causing more cash flow therefore stabilizing the economy.

The Government currently feels no need to put money into crop production because they have shown some improvement since the drought in the 1960's (Niger). Farmers are beginning to use some fertilizers, but if you look at the yield charts from the 60's to present day the improvement is minimal to compared

neighboring countries. Niger will always lag in the production of agriculture without the introduction of genetically modified crops.

The introduction of genetically modified crops would also increase the health of the economy by decreasing poverty throughout the country. If farmers begin producing more crops, their families will be able to spend more money. If people start spending more money, they will begin sending their children to school. In schools Nigerien children will learn about other advancements around the world and proper ways to run a successful business. Increased focus on the education of Nigerien children will result in higher paying jobs which will begin to emerge. With higher paying jobs urbanization will begin to occur.

Niger has other options if the government is unwilling to begin this cash flow. The farmers could be able to raise genetically modified crops if they allowed commodities. Commodities are where people from anywhere in the world can invest in the growth of farmer's crops. This has created much success in the emerging markets. Commodities would allow poor farmers to benefit from the global investment community.

This economic development plan will not be the end of Niger's struggles. In the first decade of Niger's success there will be drastic change. All farmers in Niger will begin to produce better yields, but some farmers will excel above the standards. This select group of farmers will attempt to buy out the less successful producers. In the beginning this will seem like an advantage to the small farmer as they will receive a large sum of money and not have to work to feed their families. The problem with this is that money doesn't last forever. Once the people run out of money, they will have no way to make more. Crop prices will also sky rocket due to the fact that a select few farmers own all of the land in the country. People will have no choice but to pay outrageous prices to feed their family. This corruption will soon turn Niger back into a country of poverty.

This corruption can be prevented. Before the farmers are able to produce these modified crops they must be educated. People in Niger have little knowledge on economics. Therefore they will not understand what could happen if they sold off their farms. Regulations should be by the government setting a maximum price on crops based on supply and demand and market conditions. These regulations will prevent a monopoly. This will allow the farmers to make money while allowing civilians to be able to afford to feed their family.

Farmers are the key factor in the success of this economic development plan. The Farmers must be willing to trust in genetically modified crops. Farmers will have to take a large risk. They will have to go outside of their comfort zone and place genetically modified crops in the farm plan. This will be a big risk but within a year the people of Niger will see their yields increase and their families will be able to live without fear of whether they can put food on the table or not

Niger has many struggles to overcome; they have the ability to overcome poverty but must be willing to except change. There will be many things that must be done to turn Niger into a stable economy. The introduction will be a large step in the correct direction, but there still will need to be other reforms. Niger's government has been unstable in the last 20 years. The government is currently moving in the right direction, but in the past there have been military take overs. History always repeats itself. Niger must prepare by building a military force.

Urbanization also must take place although you do not want a select few farmers running all of crop production in the country. Other jobs must be available. A country can not only run on agriculture. Along with agriculture comes agricultural business. Agricultural business involves commodities and other investments. There also must be other jobs including different types of trades. Banks also must be introduced. The people of Niger don't know how to manage their money because they have never had any to manage. These new businesses will lead to city's which will lead to more economic development.

I know Niger has what it takes to become a strong developed country. They just need to be led down the correct path. Genetically modified crops will create great opportunities for the entire country. Children will be able to grow up like a normal child without fear of starvation. The children of Niger should be able to dream of a family with healthy kids and a white picket fence in the front yard. With genetically modified crops, this dream will become a reality. Genetically modified crops will create a domino effect throughout every aspect of The Nigeriens life.

Genetically modified crops are the only solution for Niger. In the past, Niger has attempted to create a sort of stimulus package, but these only create a temporary fix. Within a few years, Niger always returned to its original state. The introduction of genetically modified crops would be a permanent fix. The country will continue to develop if this economic development plan is executed properly.

Niger soon will become a stable country. The country will be able to compete with technological and other scientific advances. The people of Niger will never have to become concerned with the welfare of their families again. The country has great opportunities in front of them, but they must take advantage of this opportunity. Genetically modified crops will change the livelihood of the Nigerien people forever.

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