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Niger, Factor 16: Education Provides Opportunity

Imagine a world where all children have equal opportunities for education, health care and food. Imagine all children having the right to grow up with a safe, secure food source. Every 15 seconds, a child dies from malnutrition or starvation in our world (bbc.com). Every minute, 21 children around the globe die due to preventable causes (UNICEF.org). In the time it takes to read this paper, 45 children have died and no one seems to hear the message. Do you have time to listen?

Niger is a landlocked, sub-Saharan state in Western Africa. It is comprised mostly of desert, with a small grassland region located in the Southern tip of the country. The three deserts comprise the desert system including the Tenere located in the middle, the Sahel in the south and the Sahara which covers 65% of the country to the north. The Air Mountains are located in the center of Niger, with run-off from the mountains filling Lake Chad, which is shared with the Nigerian border and the Niger River located in the southwest (World Atlas.com). The country has only 2% covered in woodlands due to intense removal for agriculture practices known as slash and burn. There is little rainfall annually, averaging from 2 to 56 centimeters. The Niger River Basin is where most urban areas are located including the capitol city of Niamey, where the countries only infrastructure is located (World Bank.com). The Niger River Basin provides valuable water and mineral deposits. Some of the world's largest stores of Uranium are found in Niger (Our Africa.com).

The average family size is 27 children and 5 adults. Most families have up to four wives with one husband. The average birth rate is 7 children per woman. The mortality rate is very high with 1 woman dying every 16 live births. The mortality rate for infants is also high at 8.6 deaths per 100 births. With little or no access to any healthcare, women and children are often left on their own to survive. There are only 2 doctors per 100,000 people. The population is growing at 3.5% each year rising from 2 to 15 million over the last 50 years (World Fact Book.com).

The average Nigerian eats only one meal per day. That meal usually consists of porridge made from millet, milk and sorghum. Occasionally, vegetables and Kola nuts are consumed when available. Only on special occasions would meat be consumed, because most livestock are sold or traded for food. With the lack of protein in the daily diet, many children experience stunted growth and under nutrition (Our Africa).

Little or no education is prevalent in Niger. Education expenditures account for only 4.4% of the GNP. Most children only attend primary school for an average of 5 years, if at all. A staggering 7.3 million children of primary school age are not attending school. Sixty five percent of those not in school are girls. The numbers get worse for secondary education. Only 5% of girls are educated beyond primary school. Girls are often pulled from school to work to help pay for their brothers education. With only 19% of the total population literate, it is easy to see how education takes the back burner. Most girls are encouraged to marry and have children instead of getting an education (www2.ohchr.org).

With an average farm size of 0.7 to 2.2 hectares, family farms are very small. Most can only grow food for their own families, hoping to have a little to sell for income. Several crops are grown including cotton, peanuts, millet, sorghum, cassava, cowpeas, beans, and rice. Animal agriculture includes cattle, sheep, goats, camels, donkeys, horses and poultry. Agriculture practices include slash and burn methods to clear land for crops. Very few farms are mechanized. Basic hand tools are used in the farming practices.

There are many barriers to agriculture productivity. Most of the agriculturalists are the women and children, because most men leave their families with the herds of animals to search out pastures and grasses for the livestock. Other men are leaving the family to search for jobs in the mining industry. Women are tasked with caring for the family and growing crops. With most women uneducated, best practices cannot be achieved. Most families do not have the animal power to use to plow and maintain the land. Water needed to grow crops and livestock is extremely limited especially during years of extreme drought. With little access to clean drinking water for families, many children are taxed with the job of supplying the family with daily water. Some children walk more than 2 hours per day to find water for their family (40 Chances.org). Animals and crops often don't survive during the dry periods. With deforestation and drought, desertification of the region is increasing causing more land to become unusable for agriculture. Overgrazing is also causing the desert to spread. Water stores are often drained in necessity for money to feed the family. Large salt deposits are found in lakes that are a valuable commodity. Poor irrigation practices if any are used. The large underground aquifer known as the "lullemeden" in Niger is being depleted at a rate faster than it can be naturally replaced by rain. It is lowering the water table, endangering the Niger River. Pests like locusts devour crops and can kill livestock due to the poor conditions and extended drought. Poor infrastructure allows for little movement and transportation of crops to areas that are suffering. Food markets are found in cities and near the river, but most families do not have the means to purchase items. Livestock and home grown crops are often traded for necessity (Our Africa).

Factors affecting Education

With majority of the families uneducated, it is difficult to introduce new livestock husbandry techniques as well as, other agricultural practices. Most grow crops how they were taught by older generations and do not include up to date agriculture techniques or practices. Overall education is also a barrier since most women do not go or get little education, women are not able to produce and market their agriculture products. With only 11% of women literate, it is difficult for women to empower themselves let alone feed their families. Many families of Niger are nomads that travel with their herds along the river basin or practice mining the mineral deposits. They live in camps and travel sometimes daily to meet the needs of their herds or to find minerals. Most families are not able to feed themselves, and do not have significant supply of grains or livestock to sell. Women are not allowed to own property or have jobs (Our Africa). The average family survives on less than one dollar per day.

The government of Niger has experienced stability issues. It has had several changes of leadership and military coups have threatened stability in the country. Foreign donor sources provide half of the countries budget which leaves them open to international influences. Boko Haram is a serious threat to the country and is growing and expanding rapidly. Men are paid to join or threatened with death to their families. Slavery is still an issue in Niger. Over 8% of the population are being engaged in the slave trade. Children and women from poorer families are sold or traded for food into the slavery (United Nations-Human Rights.com).

Environmental factors are threatening several areas of Niger. Over grazing grasslands are causing an increases in desertification where sand takes over pasture land and soils become infertile. Over hunting and poaching have depleted wildlife populations in many areas of Niger. Extreme droughts have intensified the problem with rainfall amounts that have declined over the past 50 years and periods of drought are becoming common. Severe droughts hit the country in 2005 and 2009, causing extreme food shortages and hunger across the county. Even during the rainy season, little irrigation practices are utilized and reliance on traditional agriculture practices are not sufficient to produce enough food. Many families struggle to find clean and safe drinking water on a daily basis. Because of the vast mineral

deposits, intense mining is stripping land and leaving behind polluted water and large areas of unusable land. Without many environmental rules and regulations, safe mining and environmental practices are not followed. Land is often stripped in practices of gathering salt where water lines have receded. This practice has been going on for centuries. Several groups of nomads specialize in the salt and mineral trades (Our Africa).

Improving education=Improving the country

Improving education and the access to education could be the single most factor to improving one of the most impoverished countries in the world. A government program has been put in place to improve education and schooling is offered free to families. This program looks promising for the future of Niger. Even though education is being offered for free, traditional cultures have been slow to embrace change and allow girls to go to school. Girls are still being made to stay home and marry early. The good news is that many of those girls are now mothers who are seeing change happen and making sure their daughters have a chance at a different future. In the capitol city of Niamey, trades are being taught to women like soap making and leather working so that they can learn to make a living independently. Organizations like SOS Children are offering training programs to provide women and girls with skills to earn money, such as sewing and cloth-making, so they can support themselves and their families (Our Africa). The United Kingdom released “The Strategic Vision for Girls and Women” which aims to empower women to have a voice and choices with control over their own lives. It plans to expand education, economic services, and for women to live free from violence through security and justice in courts. The UK is also working with the Federal Ministry of Niger to develop educational programs with UNICEF to achieve gender equality and equal educational opportunities (Common Wealth Education Fund.com). By working with the World Food Programs, education of women and girls could be established in local communities through community centers and churches to teach more efficient agriculture practices, health, and basic business skills like reading, math and writing. Also providing meals and incentives for the women and girls to attend would increase participation.

With four-fifths of Niger’s population involved in subsistence farming, they have traditionally seen little need for secondary education. Formal education has been set up on a French system, but changes are being made to include more vocational skills and lessons developed for local needs. Implementation of vocational education programs focusing on animal husbandry, animal science, plant science, carpentry, and environmental issues. Practice farming plots could be set up at schools to showcase best practices and give a place for adults to come visit and learn about agriculture best practices. Since women are often left behind to carry out the work on the farm, international agencies are trying to change agriculture practices by offering advice, training, drought-resistance crops and vegetables, animal husbandry practices, and methods of irrigation. Support agencies are helping advise families with different farming techniques such as agro-pastoralism. This practice uses livestock breeding combined with planting crops. They are also encouraging agro-forestry practices, where trees are grown alongside crops. Trees can be used for fruit, nuts, and other products like gum. An example of agro-forestry includes growing acacia trees with crops such as millets and peanuts. These trees are native to the area and are adaptable to drought conditions. When acacia trees are planted with millet, yields of millet increase 2.5 times the average. Other forestry practices include the farmer-managed natural regeneration (FMNR). Niger is the only African country that has increased forested lands over the past 20 years and is hailed as the most successful reforestation effort in the world. The program teaches farmers to leave wild trees in and around fields and instead of clearing trees trimming and cutting back to stimulate root growth. These trees help bring Nitrogen and humus from fallen leaves to the topsoil. The roots also protect from erosion of the topsoil. It encourages

animal like birds and reptiles by providing habitat which are natural predators of insects like locusts which eat the crops (Our Africa).

Niger has some of the world's largest Uranium deposits which are used by the nuclear industry and makes up two-thirds of its foreign revenue. They also have deposits of gold, iron, tin and other minerals. New mines and opportunities are being explored to develop these areas which will bring jobs for families. The nomadic groups such as the Tuareg still collect salt from the desert and exchange it for food and household goods. Large oil deposits have been discovered and hopefully will help with economic growth in the area. China is currently investing in infrastructure with oil refinery and a pipeline that is expected to grow significantly over the next few years. Coal reserves have been discovered that are being used to generate electricity for mining areas (Our Africa).

With over hunting and poaching of wildlife a serious issue, the country banned hunting in 2001. Conservation groups are helping to fund programs and educate locals to preserve some of the endemic species of Niger like the Niger Giraffe which has become endangered. Experts believe only a few hundred remain, but with conservation practices in place, numbers are on the rise.

With a population that is continuing to expand at an alarming rate, officials from government and local levels are starting to raise the sensitive issue of family planning. Religious leaders are beginning to promote gaps between births which will help ensure better nutrition of mothers and children. Most women are pregnant within 40 days of giving birth. Nursing infants are pulled away during traditional beliefs about pregnancy and can suffer from undernutrition.

The government of Niger has started a program titled 3N or "Nigerians nourish Nigerians" to build a framework for moving the country toward food security. During the droughts of 2012, faced with food shortages the government asked for international assistance. Several agencies sent emergency food supplies and foods fortified with nutrients for mothers and children. These agencies are also helping develop programs to lessen the effects that droughts have on the food supply like building irrigation systems. The World Food Program is paying people willing to work on small scale projects such as building irrigation and water-gathering systems (Our Africa).

Another government initiative is working with the United Nations program "Scaling up Nutrition". They work together to tackle malnutrition. If situations become severe, UNICEF increases the services of health centers and provides emergency treatments for the malnourished (UNICEF).

Expanding programs like Heifer International could greatly affect the education and nutrition levels of Nigerians. Heifer International uses donations to provide animals important to providing a means to feed the family and help the family work the land more productively. They also educate the women in animal husbandry, crop rotation, and fertilization techniques. The current focus is on sheep and goats but could be expanded to include cattle and horses which are highly valued in Niger. They have been working to improve lives for over 70 years and have helped raise the quality of life in over 120 countries. This program expansion could single handedly change the lives of millions in Niger (Heifer International.com).

The Savory Institute is operating special projects in Africa with Heifer International. They are working on holistic approach to solving major problems like decreased grasslands and desertification. The programs works to inform policy makers and other stakeholders of what changes are needed in policy to develop grasslands and stop desertification. They work to develop markets that encourage environmental and social benefits. They coordinate and develop research programs to develop and sustain grasslands while eradicating deforestation and degradation of soils. The program also works to inform outside sources of

the serious issues facing our world. Expanding programs and doing these projects in Niger could change the face of hunger and malnutrition by reestablishing the once lush grassland environment. (Savory Institute.com) A quote used by the Savory Institute states “Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all.” (Ban Ki-moon-Brainyquotes.com)

The impact of including animal protein in the diets of growing children greatly influences mental and physical development. One Egg is trying to influence the nutrition and educational achievement of poorer countries where children are not receiving enough food to properly grow. The protein provided in one egg per day could mean the difference between life and death. This organization delivers chickens to families in need, then educates the families on nutritional and animal husbandry practices. They also develop partnerships with farmers to grow the poultry. By expanding this program into Niger, children could get the protein needed to not just survive, but grow. Adults would gain skills from the educational opportunities. They currently operate in several countries in Africa, but not Niger. They have made remarkable impacts in the lives of children and families (Oneegg.org).

If these organizations could expand their programs and work together, life could drastically change for millions living in Niger. They would work together to restore the ecosystem and biodiversity. This will allow Nigerians to focus on improving lives instead of where their next meal is coming from. “Give a man a fish, feed him for a day. Teach a man to fish and he will eat for a lifetime.” By empowering individuals through education, Niger can reach its potential.

Bibliography

- "ADEA | Association for the Development of Education in Africa-Niger." *ADEA / Association for the Development of Education in Africa*. Web. 13 Mar. 2016.
- "At a Glance: Niger." *UNICEF*. Web. 13 Mar. 2016.
- "Ban Ki-moon Quote." *BrainyQuote*. Xplore. Web. 13 Mar. 2016.
- Buffett, Howard G. *40 Chances: Finding Hope in a Hungry World*. Print.
- "COMMITTEE ON THE RIGHTS OF THE CHILD." *Committee on the Rights of the Child*. Department of International Development. Web. 13 Mar. 2016.
- "Does a Child Die of Hunger Every 10 Seconds? - BBC News." *BBC News*. June 2013. Web. 13 Mar. 2016.
- "Education in Niger." *Commonwealth Foundation*. Web. 13 Mar. 2016.
- "Heifer International | Charity Ending Hunger And Poverty." *Heifer International | Charity Ending Hunger And Poverty*. Web. 13 Mar. 2016.
- "How to Fight Desertification and Reverse Climate Change." *Allan Savory*. Savory Institute. Web. 13 Mar. 2016.
- "Niger - Education." *Niger Education System*. Encyclopedia of the Nations, July 2015. Web. 13 Mar. 2016.
- "Niger Geography." *Geography of Niger, Landforms*. World Atlas. Web. 13 Mar. 2016.
- "Niger Home." *World Bank*. Web. 13 Mar. 2016.
- "Niger." *Our Africa*. Web. 13 Mar. 2016.
- "Niger." *United Nations-Human Rights*. Office of the High Commissioner. Web. 13 Mar. 2016.
- "Niger." *World Fact Book*. Central Intelligence Agency. Web. 13 Mar. 2016.
- "Sustainable Development Goals: 17 Goals to Transform Our World." *UN News Center*. UN. Web. 13 Mar. 2016.
- "The Global Food Security Index." *Global Food Security Index: Country Profile/Niger*. DuPont, May 2015. Web. 13 Mar. 2016.
- "Why Eggs?" *Why Eggs?* Web. 13 Mar. 2016.