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Chad, Africa - Factor 16: Education

### **Chad - Educating Sustainable Agriculture**

Landlocked in the heart of Africa sits Chad. With over 13.58 million people [Population, Total] the struggle between war, extreme climate, and poor farming practices leaves the country in distress. Thousands of Sudanese, Central African Republic, and Nigerian refugees continue to flee to Chad to leave the Central African Republic Revolution. High infant and child mortality rates continue to climb as citizens fall even further below the poverty line. Chronic food insecurity is due to the inability to access adequate food sources with unpredictable rains, locust infestations and harsh droughts. These problems will continue to burden Chad unless sustainable agricultural practices are put into place.

A day in the life of a Chadian child would include walking to and from a one-room school, and coming to their family's hut to help their mothers with housework, cooking, and taking care of other siblings [Children's Page]. Girls and boys typically attend school until elementary and tend to stay home once they reach junior high and above age. Millet paste is commonly the meal for breakfast and dinner. Chadian women stay at home while the men run any business, teach, perform nursing, and run the mosques or churches. The women go out to the market to buy vegetables and other foods for their daily meal, or are in the fields working the main export of peanuts and millet in the rough soil [The Chadian Women]. Most of Africa, including Chad, is known as a third-world country, with that it's a struggle to survive and provide for families. Most farmers who try to grow crops in the harsh soil of Chad, with constant drought, give up and move to cities to find work. Farmers who do stay are drawn to Lake Chad for irrigation. This is part of the reason the lake is beginning to shrink. Currently there are not many organizations working or conducting research in Chad. But there is research in a neighboring country, Niger. There are fertile spots dotted through both countries. Those special spots are called 'wadis' [Sustainable Ag in the Sahel]. There is research to further the area of the wadis in hopes of growing even more food. Some of the work done in Niger includes improved seed varieties, traditional irrigation and environmental protection. Chad is advised to follow similar experiences like Niger. Even with the spots of 'wadis', only 2.6% of Chad's land is cultivated for crops [Chad - Agriculture]. Due to the Sahel and Sahara Deserts the soil types are very dry and sandy in the majority of the country. With these deserts there is increased food insecurity because of the lack of food grown.

There are some farming practices that are currently in place such as, crop rotation, slash and burn technique, and periods of dormant land. The practices are not the best for the land. Traditional farming is also harder with scarcities of rain and land. Another problem the country faces is modernization. All the fields are worked by hand or by the use of animal labor.

The school system that is in place in Chad is modeled after the French education system. This is primarily because the French were the first to settle the Chadian area. For the first six years children learn basic literacy and secondary education is for the next seven years [Education in Chad].

Education in Chad affects agricultural productivity, household income, food availability and quality. This is because the people do not finish school or get enough education about agriculture practices. The country is one of the poorest countries in the world, ranking 5th [World's Poorest Countries]. Children are unable to get proper education because there is not enough money to build the school, pay the teacher,

and enroll all the students. Also, agriculture education is not part of the curriculum. This leaves the majority of children who do not finish school with little to no education about farming practices. The enrollment rate for primary level is 57% and that number drops to nine percent for secondary level education [Chad-Educational System- Overview]. These numbers can contribute the low literacy rates of Chad. The literacy rate in Chad as of 2015 is 35.4% [Chad Literacy].

The lack of knowledge children have growing up causes poorly informed adults. Only 9% of students passed their leaving exams [Education in Chad: In a State of Decline]. Poorly informed adults leads to a lack of knowledge when it comes to growing crop and raising livestock. It's a chain reaction of absence of agriculture education. Because there is very little education, there is not enough knowledge on how to produce food for the population. The lack of agriculture education causes a domino effect of a negative impact on the economy from food production to investment in advancing the civilization.

Currently, there is lack of schools for children in Chad. Only two percent of government spending goes to education. Because there are very few people that continue education people do not have the understanding on how crops and animals affect the land. More boys than girls go to school. This leaves women with even less comprehension on sustainable agriculture practices. It is also these women that are the main farmers.

Education trends in Chad are staying the same. There is no increase or decrease in schools nor an increase or decrease in graduates [Education in Chad]. There is not much fluctuation in the school system. The education system for families is staying the same, the children attend school around the age of 6 and leave the education system around the age of 12 [Education System in Chad].

Improving the education system in Chad would greatly increase the literacy rate. Adding agriculture education to the curriculum would allow children to understand the importance of sustainable agriculture practices. With increased education people of Chad would learn about proper health and nutrition to improve their health thus decreasing mortality rates. There would also be more knowledge on how to create different seed varieties, like in Niger. Improvement in the education system will create a positive chain reaction. Students will gain the skill to farm properly using the land available and find different ways to preserve land so that it is always arable. With those skills learned there will be more of an abundance of food for the population. With improved seed varieties there would be a greater quality of food. All of these factors would help the environment be sustainable. There would be more flow of money through markets and investing. Through education more children would advance to secondary and higher education to better themselves. This would enable agriculture education to have a more positive impact.

My proposal to add agriculture education into the Chadian curriculum would be tricky due to very little government spending on schools. Speaking to the government about the proposal would require providing them with proof that agriculture education will make the country stronger. In order to gain proof, they could set-up trial schools where they implement agriculture education. To set-up trial schools the communities would need to find willing citizens to participate. If the communities see positive effects from trial schools after one to two years, that will be considered proof for the government to increase spending. These trial schools would most likely require funding from outside Chad. It'll be a long process but it could be what saves Chad from complete distress.

The aim for agriculture education would be towards secondary level, after students have completed primary school. Students would be exposed to agriculture education, and they would be able to absorb the

information and implement it at home. Teachers, with the knowledge of farming techniques and land would educate proper farming techniques for Chad's rough land as well as consequences for incorrect or improper farming routines.

Outside of the school system, I recommend putting programs into place like educating the people on how to grow sustainable crops. Modeling these programs after Cooperative Extension Outreach and adult agriculture education programs would be the most effective method. This would bring the education to the farm and not rely on the farmers coming to come to a school. By teaching them how to grow proper food and improve health standards throughout the country there will be lower mortality rates and a higher standard of living. If we could implement research and teaching groups very similar to the ones in Niger there would be the hope of improved life in Chad. Adults who farm are not the ones in the classrooms so, providing education for them would help make changes in communities as well.

If Chad is hit with an even larger drought than they have experienced before, it would make the necessary changes in education that lead to more sustainable practices very difficult. Water scarcity would be a large problem, with being a landlocked country they have troubles getting water for drinking and irrigation. With increased knowledge on agriculture and crop growth the infant and child mortality rates would decline leading to an even larger population. This puts more of a strain on the people for the need for sustainable agriculture. There is not much urbanization currently or anytime soon as there is 10.5 million rural people and 3 million urban people [Trading Economics].

The hardest part about my recommended changes is finding willing citizens to make the shift in daily life to send their children to school and/or accept help from others. After primary school, children are required to work at home just to survive. Only going to school through the primary level and leaving school before the secondary level is a societal norm in not only Chad but most of Africa [Our Africa].

Companies such as Land O' Lakes aid other countries in the Middle East and North Africa. With the possibility of branching out to Chad there would be the funding needed for educating that higher standard of living. The cooperative's goal is to educate the people on sustainable agriculture, promote stability and growth economically, and create jobs [Land O' Lakes].

Currently, Land O' Lakes has a program known as the Global Food Challenge. The Land O'Lakes International Development Division is a non-profit sector of the company that works with students and graduates from diverse backgrounds to work on international development programs. Funding is received through the USDA and USAID to send students and professionals to work with other countries [Land O' Lakes International Development]. The idea of the program is to positively impact food insecurity locally, nationally, and internationally [Global Food Challenge]. Through this program, several countries have seen improvement through agriculture education, which is why I recommend a similar program or this same program for Chad.

With rising mortality and poverty, Chad is in extreme need. The need for sustainable agriculture face them every day. The poor farming techniques, rough soil, and lack of knowledge leaves Chad as one of the poorest countries in the world. Children lack education the most and the literacy rates are incredibly low. With the hope of improving education there could be an improvement for health and sustainable agriculture. Chad was advised to follow the research experiences in the neighboring country of Niger and maybe one day Chad can be the model for other struggling countries to follow.

Education improvement would change Chad entirely. There would be the creation of jobs, more food readily available, and the land would be better conserved. It will be a long winding road to bettering Chad

but with help of organizations and other corporations we can help the people who have struggled for so long. Everything Chadians need for improvement can be taught and eventually they will become the professionals. The future of Chad lies in the hands of the children. By improving their education including agriculture, their quality of life will improve. They have such bright futures with a developing country that they can mold with the new and improved idea of education in Chad. The outcome of all the hard work would be increased food security and lessened malnutrition, leading to a healthier and more stable country. Life would be looking up for the struggling families in Chad. But, it won't until the recommendations for education improvement and the chain reactions are put in place.

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