Elise Anderson Lyons-Decatur Northeast Lyons, Nebraska, USA Mozambique, Education

Mozambique: Improving Access and Quality to Education

The country of Mozambique is located in southeastern Africa, bordering South Africa, Tanzania, Malawi, Eswatini, Zambia, Zimbabwe, the Mozambique Channel, and the Indian Ocean. The capital of Mozambique is Maputo. It's land area just under 800,000 square kilometers. Comparatively, Mozambique is slightly less than twice the size of California. Mozambique experiences a tropical to subtropical climate. The geography consists mainly of coastal lowlands, along with uplands in the center, plateaus in the northwest, and mountains in the west. The most common language spoken is Portuguese.

Mozambique works under a presidential republic form of government. The heads of the presidential republic government includes a president and a prime minister. A new president is elected every five years and the prime minister is appointed by the president. The Presidential Republic of Mozambique also contains a legislative and judicial branch. There are four main political parties in Mozambique which includes the Democratic Movement of Mozambique, Front for the Liberation of Mozambique, Mozambican National Resistance, and Optimistic Party for the Development of Mozambique.

Mozambique's natural resources include coal, titanium, natural gas, hydropower, tantalum, and graphite. Their highest yields of crops include rice, maize, cassava, cashews, legumes, sesame, vegetables, and potatoes. Mozambique's three largest exports include seafood, cashews, and cotton. The major industries in include aluminum, petroleum, chemicals, textiles, cements, glass, and tobacco. The expenditures of Mozambique are approximately seven hundred million dollars more than their revenues. They spend almost one billion more dollars in imports than they receive from exports.

A typical household in Mozambique contains four to five members. Only 19% of households in Mozambique contain a person who is 60 years of age or older, while 77% of households contain at least one child who is or is younger than 15 years old. Twelve percent of households have someone aged 60 or older and 15 or younger living together in a home. In a house that contains at least one child 15 years old or older, there is on average two to three children in the home. Fifty-eight percent of households that contain children also have both parents present in the home. Thirty-three percent of households in Mozambique have only a mother present in the home. An average of 4.97 children are born per woman, but the infant mortality rate is high to to the large percent of the population carrying AIDS.

The diet of a typical Mozambican, especially in the rural areas, is mainly composed of cassava. The main problem of this form comes from the fact that cassava is very low in protein. In some of the more urban areas, diets consist of more maize and imported wheat. There are very few vegetables, fruits, and meats on any table for any meal. Without these items, many lack a supply of micronutrients. Around 80% of the people's dietary energy supply comes from cereals in starchy roots. (Nutrition and Consumer Protection, 2010) Mozambique is rated the lowest in the region of dietary diversification. The rate of malnourishment and quality nutrition is beginning to get better, but there is still a large problem. Of all children under the age of 5, 44% of the children suffer from chronic malnutrition. Chronic malnutrition is more prevalent in the northern part of Mozambique, which is also where the most cassava is eaten and is where food insecurities is most chronic.

Public health care in Mozambique is very unlikely to be found. When there is access, there is often a shortage of supplies and medical professionals. There are always long lines for any sort of care. Rural areas have little to no health care options available, and people from rural communities ofter travel hours to receive treatment at a government clinic. Private health care is more common in larger cities such as Maputo. Most doctors who work in these private cities come from out of the country. This leads them to be better trained, educated, and more experienced. When in need of specialists and more complex

procedures, many natives cross the border to South Africa to receive better treatments. Major diseases that are prevalent in Mozambique includes HIV/AIDS, diarrhea, hepatitis A, and typhoid fever.

Of all farms, 95% are run by smallholder farmers who run subsistence farms. This percentage includes almost 3.2 million farms in Mozambique. The average size of these farms in Mozambique is 2 hectares. On these hectares, families mainly grow maze, rice, cassava, beans, sweet potatoes, and sugarcane. Some have chickens, and very few have cattle. Enough crops are grown to try to sustain the family on the subsistence farms. Tractors, fertilizers, ploughs, and pesticides are not used often. Those who do use these technologies often run the larger farms.

The climate creates a major barrier in agricultural production. In just 2019, Mozambique was hit by double cyclones, which flooded much of the land and left farms devastated. Families and farms are still reeling from the loss. Mozambique also suffers from terrible droughts periodically. The ever changing climate, mixed with the lack of modern agricultural practices, such as drought resistant seeds, keeps Mozambique's farmers from getting ahead. Other than the climate, there is little stopping agriculture in Mozambique, there is fertile land that is not in use. Farmers just need to be trained to keep up with new practices.

A major barrier for Mozambicans to make living wage is the fact that the country is not structurally developed. The majority of people are self-employed, as they farm to keep food on the tables for their families. Manufacturing jobs have not been created, and there is almost no link from industry to agriculture. People are not looking to make profit in their farming practices, only to survive. If there were more complex products produced with the resources already in Mozambique, more jobs would be created, thus providing more with a substantial income. Another large barrier is the amount of education. There are very few in Mozambique who are properly trained and educated for more complex jobs. This put most Mozambicans unable to find or create jobs with financial stability.

The main issue to finding adequate nutrition in Mozambique stems from its economic issues. With the majority of the country's revenues coming from different food products, the country is exporting many foods that would greatly help to meet the Mozambicans' nutritional requirements. Mozambique's economy is working hard to improve, and that has come at the expense of many natives. Most of the seafood and sugar is exported, which leaves very little for the people in Mozambique. Of the food that is not exported, most is grown in the quantity only for the family of the farmer. This leads to those who are not farmers to have a tough time finding any food to eat, let alone healthier foods.

Mozambique is working to improve education in their country, and they have shown steps in the right direction. Just a few decades ago, most education was private and costed more money than most people in Mozambique could afford. Since then, the government has abolished school fees, provided support towards schools, aided classroom construction, and provided free textbooks. (Franco, 2017) This has caused primary school enrollment to increase dramatically in the past decade.

The increase in enrollment has created problems of its own. Problems in education start off at the beginning. There are very few early childhood learning services available for kids from ages three to five. Not only that, but very few parents do anything in their homes to teach small children. This stems from the fact that the parents are typically working and they aren't even educated enough to teach toddlers. There is a very little difference in the enrollment in secondary schools, or any schools higher than this. Almost 1.2 million kids in Mozambique do not attend any sort school. Even with more children in primary school, the quality of education has done little to improve. A statistic from 2013 shows that only 6.3% of third grade students had basic reading skills. Many link this to the statistic which states that about half of the students enrolled a school will be absent on any given day. Teachers are also gone from school about 45% of the time. Much of the quality education problems come from the fact that most teachers are not properly trained and educated themselves.

The Education program in Mozambique is currently working to maintain two areas: quality and access. Theses two areas will be expanding all while putting an emphasis on strengthening systems and dialogue of early education, teacher policies, and out of school students. (Franco, 2017) Focuses will also be on pre-primary and primary education, keeping children in school, and ensuring teachers with enough knowledge to teach reading and writing are present in classrooms.

The targets for pre-primary schools are to develop and expand learning opportunities that are affordable and of quality across the country. A focus is also being put on including children with disabilities. These targets first were put in place in 2015 with the Government's Five-Year Plan. The Strategic Plan, which stared in 2012, is where these plans came from. The Primary Education Operational Plan is also in progress.

One solution Mozambique could adopt to create a better education system in their country would be to develop a program to educate teachers. The steps are already in place to build resources for the children to go to school, but the country needs adults capable of teaching curriculums. With the current education level of the majority of teachers, the students will not be equipped to gain and education, no matter the curriculum the country provides. With the better curriculum and educated teachers, the education level in Mozambique will increase dramatically.

A program could be developed that is similar to Mercy Ships. Mercy Ships is a "floating hospital". It is a ship that travels around the coasts of Africa providing life saving surgeries and other sorts of medical procedures. The effort of this nonprofit organization has impacted over two million lives in forty years. Currently, there is only one ship: Africa Mercy, but they are currently working to set out a new ship: Global Mercy.

An organization such as Mercy Ships could be developed to educate teachers in Mozambique. Instead of traveling around the coast of the country, there could be caravans which move across the country. The traveling caravan could be structured and designed to set up "camps" in different communities across the country which would stay for a length of time until the group of teachers are trained and taught well enough to be able to handle managing and teaching a class. It would then be able to pack up and move on to the next community and do the same thing.

All of the "trainers" would be volunteer teachers who would like to help educate others. The entire program would be run by an ambassador who would run the program and manage the volunteers, as well as work closely with the Mozambican government. The ambassador would be able to effectively run the program to fit the needs of the country because of the hopeful government involvement. The ambassador to run reports to let the government know how the program was doing, and they could bring back the ideas the leaders of Mozambique had to the program.

The first tour of this caravan should be dedicated to training primary school teachers. Since the end of the Mozambican civil war and the increase of classrooms and textbooks, the government of Mozambique has made attending primary school a requirement for all children. This implies the feasible solution is to start the training on the primary education level. Primary schools have the highest enrollment numbers in Mozambique, so if primary teachers are trained first the highest number of kids will be helped.

The most basic and needed area of education in any persons life is reading and writing. This is where teacher trainings would be best to start. If teachers are educated on how to best teach reading and writing in primary schools, the literacy rate in Mozambique would increase drastically. Even if some of the teachers in Mozambique are completely literate, it is still important to be sure the curriculum is understood. Under best case scenario, the training to understand the curriculum would take around one to two weeks.

The next point of training and educating would be arithmetic, if this program were to follow the functional skills of literacy. Teachers attending this program should be tested in their skills in the math

area. As recent data has shown, math is one of the lowest levels of education in adults in Mozambique. This could prove that math would be one of the more challenging areas of the training. It is important that by the end of the math portion of the training, the Mozambican teachers will fully be able to teach primary school math. After a basic understanding of math and teaching math, a smooth transition can be made into science. Learning science can be achieved by combining an individuals reading and math knowledge. Many different lessons of science can be learned by reading textbook lessons. This creates the main focus of the traveling caravan to be on training teachers how to best teach science courses. The Mozambican teachers would best benefit from the science part of the training if they were mainly taught how to teach the science curriculums.

History is also an important education course for every classroom. Without a history course in every classroom, there will be a significant hole in a child's education. History helps students learn mistakes that could be avoided if they had the chance to learn about them. While history may not be considered a functional skill of literacy, it is an important course in any child's education, and should be a main focus of any school. Therefore, it should be made a focus of

The most logical way of going about the training would be to teach and train the Mozambican teachers straight from the curriculum the government has purchased for their primary schools. The government has worked to make significant strides to try to improve their education system, and a program such as the one proposed should work with the government. Mozambican teachers will be much more ready to teach a classroom faster if they are learning from the textbooks they will be teaching. While there are will always be flaws to systems, this way will get children a proper education the quickest way possible.

An important part of a child's education is different parts of the arts. Music, drawing, and dancing are critical in a child's early development. Arts and creating allows students to develop motor skills, develop cognitively, and further their math and language skills. (Rymanowicz, 2018) The arts allow children to be more creative and further their own mind development. It is important for this training program to push the importance of the arts to the Mozambican teachers. If the importance is displayed through this programs, the arts are more likely to be incorporated in the classrooms in Mozambique.

The last item that needs to be covered in the program would be covering how to most effectively teach classes. A crash course in lesson planning, communication, and actively teaching all ages will be needed for the teachers to succeed. While many teachers will continue to learn as the begin teaching, it is important to give them a baseline to go off of.

The program would last approximately a month and a half in each location. The reading and writing portion of the program would be anticipated to take approximately two weeks. The math portion will take a projected two weeks, which will roll into an addition week of the science curriculum. The final week of the program would be dedicated to a brief history training and the quick lesson in incorporating the arts. With this being said, the entire train program would have the arts developed into the entire program throughout the time in each location.

The traveling caravan program would be designed to take its first tour by setting up the training centers in the eleven province capitals of Mozambique. The program would make its first stop in the southern most province in its capital, Maputo City. From there, the caravan would make its way up north, hitting all of the province capitals along the way. After Maputo City, the caravan would make its way to Matola, Xai-Xai, Inhambane, Beira, Chimoio, Tete, Quelimane, Napula, Pemba, and end with Lichinga. This would allow the program to spread across the entire country in just over a year and a half. The teachers in these cities, as well as surrounding villages would be encouraged and given the opportunity to attend this program. The logic behind setting up the trainings in the capital cities of each province would be to attend

to the needs of the highest number of students first. Cities are much higher in population, thus more students will live in cities.

After the first tour of Mozambique is completed, the caravan would plan to head back from the northern most point, down to the southern most. This time stopping of more rural areas. Every province capital is placed on either the coast or the railroad. This part of the tour would be dedicated to the teachers and students who live farthest away from these two points. With the shape and geography of the country, not every province will have the same amount of program set ups. Provinces which have more rural areas, such as Gaza and Inhambane, will most likely receive more stops by the program, than a province which is smaller in area, such as Maputo.

Once the program is confident with the quality of primary school teachers across the country, its focus would be able to shift towards secondary school teachers. With the improvement of primary education the country will see after the work of this program, there will most likely be more kids ready and willing to attend secondary school. The higher enrollment rate in secondary schools would create the logical conclusion that the secondary teachers would need to be improved as well. If the secondary teachers are not equipped to teach brighter and more ready students, the students will continue to drop out. There is no use of creating this program if the country continues to see students drop out at an early age. To prevent dropouts, the secondary teachers will need to be well equipped and prepared. Since the education is a higher level, it will take the program longer to reach all parts of the country.

After this program has reached secondary teachers across Mozambique, the program would be able to shift to pre-primary education. Even though there are very few pre-primary schools in Mozambique, the importance of of early childhood education is blatantly obvious. This portion of the program would not only be for teachers, but also for parents of young children. It would not be a long training in each location seeing that parents need to work to support their children and families. It would only last a day or two, and it would focus on activities young children could partake in to further develop their own minds.

In conclusion, a program in which a training system is set up to help teachers in Mozambique would be beneficial to the Mozambican education system. If teachers were properly trained, the education system would be complete, as the country has already purchased a strong curriculum. This program would focus on educating teachers on reading and writing, math, science, history, and arts. It would be in the form of a traveling caravan in which volunteers would travel across the country, making stops for one and a half months at a time to train Mozambican teachers. The program would start with primary school teachers, then move to secondary teachers, and finally finish with pre-primary education.

With improved teachers and a better understanding of curriculums, the enrollment rate of all levels of education would most likely increase. If more children made it through a higher level of education, they would be much better equipped to help the county get out of their economic crisis. The first resource of every country is its people. The future of each country is in their children. Properly educated children will increase the resources of Mozambique and lead it to financial stability.

Bibliography

- CIAT; World Bank. 2017. Climate-Smart Agriculture in Mozambique. CSA Country Profiles for Africa Series. International Center for Tropical Agriculture (CIAT); World Bank. Washington, D.C. 25 p.
- Franco, R. (2017). Education. Retrieved December 07, 2020, from https://www.unicef.org/mozambique/en/education
- Guide Healthcare in Mozambique: Allianz Care. (n.d.). Retrieved December 08, 2020, from https://www.allianzcare.com/en/support/health-and-wellness/national-healthcare-systems/healthcare-in-mozambique.html
- Kylie Rymanowicz, M. (2018, October 02). The art of creating: Why art is important for early childhood development. Retrieved February 17, 2021, from https://www.canr.msu.edu/news/the_art_of_creating_why_art_is_important_for_early_childhood_development#:~:text=This%20 unrestricted%20exploration%20helps%20children,learn%E2%80%94and%20it's%20also%20fun.&text=Art%20allows%20youth%20to%20practice,Fine%20motor%20skills.
- Mozambique demographics PROFILE. (2020, November 27). Retrieved February 14, 2021, from https://www.indexmundi.com/mozambique/demographics profile.html
- New Agriculturist. (2004). Retrieved December 09, 2020, from http://www.new-ag.info/en/country/profile.php?a=855
- N. (2010). Nutrition Country Profiles- Mozambique. Retrieved December 07, 2020, from http://www.fao.org/ag/agn/nutrition/moz en.stm
- Project, B. (2019, December 23). 7 things to know about education in Mozambique. Retrieved February 14, 2021, from https://borgenproject.org/7-things-education-in-mozambique/
- The World Factbook: Mozambique. (2018, February 01). Retrieved December 04, 2020, from https://www.cia.gov/library/publications/the-world-factbook/geos/mz.html
- United Nations, Department of Economic and Social Affairs, Population Division (2017). Household Size and Composition Around the World 2017 Data Booklet (ST/ESA/SER.A/405).