

Cully Forsyth  
Charles City High School  
Charles City, Iowa  
Mali, Water and Sanitation, Factor 9

## **Clean Future**

We know there are problems or decisions arising on a daily basis. For me it's what should I wear or eat for lunch to even what time to go to bed. To ourselves some of the problems we face are ever so dramatic that they overrule our lives. We've all heard the speech about how we can help third world countries. Until we actually open our eyes to the world we're blind to the problems happening. Living in a dominant country we get a reassurance that we're safe and no world issues will arise. Now imagine this, waking up most of the time starving and sick going to the water pump and getting a drink of water, just a sip, of course because you have to savor every bit you have, then doing other tasks in your daily routine, hungry, sick, and thirsty. Some would say it's an unlivable lifestyle, but it is a reality for many Malian people.

The Senegal and the Niger, two major rivers, are helping Mali survive. With 15 million lives and food provisions at an all time low, struggling is a nice word for the situation. Most of the population lives in the major cities such as Bamako (capital of Mali). The main language in the country is French, but Bambara is a local language that most natives speak. With 28% of Malian children underweight, and a literacy rate of 26% for the total population. To say the least they have some very important issues affecting their country. Despite the abundance of natural resources they are one of the poorest countries in the world, with more than half of their population below the poverty line. School as we know it is a very important aspect in today's society. In Mali it doesn't matter whether students are in school or not; if they stay in school they learn nothing new. They do their work under trees and in sand on beaches. Conditions couldn't be worse. The people who live fulfilled lives do not worry about where their bath water has been or when they will eat, that's not the case in countries such as Mali where the question is where do I get water or what will I eat.

### **The Malian Way**

There are around 15 million people that live within the borders of Mali, and at a growth rate which is close to the United States at around 3% means the demand for "more" is a heated topic. A mud hut is the place of living for these people. With small living quarters and a family of an average of five, there is little room for anything but strictly sleeping. Living in the house with relatives is very common. The more living together means the more work gets done and more income is brought in. The clothes people wear in Mali are the clothes they've worn for a lot of their life. Women like dresses and skirts and most men wear common shirts and pants. With the blazing sun above, shading their heads is acceptable. Shoes are somewhat a privilege, but coping with what they have is typical. Outside the house usually a pump is in place for water along with small pens for some livestock. The dried land is no desire for any citizen in the Country.

The Malian diet is as you can imagine, not very good. Mostly porridges and soups are eaten. Rice and other vegetables are found in these mixes. Meat is scarce due to how expensive it is. Other than water, which is poor quality, a special native drink made from hibiscus and/or ginger along with fruits. These

meals of course come in small numbers due, again, to shortages.

Next is education, the facilities of course can show you how bad it really is. Weak mud walls and poor unsealed roofs along with undrinkable water and unusable bathrooms are in these buildings. Only about half of the children go to school while the others work for their families. Those who do go to school learn nothing but what they already know so it's useless to proceed. Along with water sanitation, education needs help also.

Last is health care. As you can guess, the facilities are not sanitary. For every 100,000 inhabitants there are five physicians. This fact alone is astonishing. One point five percent of adults have HIV/AIDs, which is actually a good number, compared to other third world countries, but still could be lowered. Almost half of Malian children enter this world with water borne disease. Each year 5,800 deaths occur, 70% of which die of diseases caused by mostly water because the water they digest is not sanitary. The average life expectancy is 54 years of age. If that were the case in America millions would be worried. The life of a Malian is no way to live.

### Farming in Mali

In Mali only the southern part is suitable for farming since it is so dry in the north. In the southern portion of the country, they grow mostly millet, rice, and corn. Even though these crops are grown, farming only takes up around 2% of land in Mali. Some minor crops are peanuts and other nuts along with the shea tree cultivated for oil which appears in a lot of our daily substances. Products fluctuate depending on how much water can be irrigated. Another problem is water quality. These waters have been used before which means other chemicals and matter are in the recycled water. The water has already been used.

Farm sizes differ from family to family but usually finding some livestock and rice on a family farm is common. There is a lot of work to be done on the farm since they don't have the technology we have in the US, so all relatives of the family help in the process. Technology in any third world country is very scarce. As a 4th generation farmers son, I would find it nearly impossible to work on the farm with the items the Malians have, and I believe that's why their yields aren't as high as they could be because of many factors such as what I'm highlighting on, water sanitation, proper equipment, and knowledge on the process.

Even though it's hard to find a family not using the practice of farming, the ones who live in bigger towns such as one stated before the capital of Mali, Bamako. Another populated city is Sikasso. Places like these are densely populated because of job opportunities and market places. On a record found in 2013 markets are slim. In quality and quantity that is. This is why most people grow and produce their own. Access to food is not hard to find, what's hard to find is the quality.

### Set-Backs

So what's wrong with The Republic of Mali? Why is this country struggling? Why is it in the top ten for poverty in the World? To see why this country is being held back we have to peel away one layer at a time, but where to start? We know of course there are many flaws in their operation because they are in fact not excelling in what they do. Maybe it's bad governance. Could it possibly be that it's the guy in charges fault. We of course like to put it all on him but that's almost never the answer to a good solution.

Maybe it's indeed the citizens fault for not caring enough to help the situation out. Or maybe we'll never know because that's not what matters, what matters is they have many problems that need fixed.

Other than human imperfection, other factors such as poor soil quality, climate, unsatisfactory drinking water, and water that livestock and crops need to grow are the main obstacles. I know there's a lot of maybe's and that's because there are so many approaches to put into consideration. The list could go on and on.

#### What to Consider

The factor I chose to display like I stated before is water and sanitation. The government of Mali set standards that need to be met. These standards include having at least one main safe water drinking point in each village. After stating that, it might come as a shock if I told you around 4,000 villages do not have this luxury (Unicef. Web.). Now you might be asking where people get their water from. Most of them do get water, it just isn't safe to drink or use for crops. These waters have been poisoned by defecation and chemical runoff. Why would anybody drink water like that? It's either this venomous water or death. In some cases, what ever comes first. Also found at "Unicef" of the 9,000 schools, in Mali, almost none have appropriate water and sanitation facilities. This sounds bad, but the water that they drink is just as bad as the water in the toilets, or dare I say in their front yard. That's right, most homes that have been overwhelmed by poverty don't have proper bathroom stations, which means if making a hole in the front yard and having it runoff in a man made ditch the best decision, that's what happens. Make sure not to tell your neighbor down the hill though. In all seriousness, this can not be made into a joke. The man down the road now has diseases and he does not know what to do so he does the same tactic. This process is non stop in Mali. The people in poverty visionless of what they are doing. Ask yourself what it would be like without a bathroom. In Mali around 800,000 people know what it's like.

Five million, six- hundred thousand people lacking safe drinkable water. In the world? No in a country one-fourth the size of alaska. 64% reliant on agriculture. 69% living below the poverty line. (WaterAid). These facts are evidence that something needs to change. Looking at some technology statistics it isn't surprising that there is 0% technology in Mali. Even with around 100 people with cell phone service (Rural. Web.). Technology even though is low on importance in Mali needs start entering the picture.

#### What's in store

This paper can't just be about the flaws. So how can we find solutions. Well the one's more advanced that we use are out of Mali's reach. They are not affordable. The land is incorrect for the process along with costly laborers. We need the opposite of those things, something cost efficient, easy to use and will last for a long time. Well actually there are a numerous amount of products out there that fit all these needs. Many researchers and scientists much like Norman Borlaug are out there finding new ways and using the ones they have already made to quench the thirst of the less fortunate. Some methods such as aquatabs. These tabs cleanse along with putting nutrients in the water making it drinkable and ready to give to livestock and crops. Other small items like purifiers that connect directly to the bowl are getting very common. This piece, kind of like the one we can buy, clamp to the faucet and filter/purify water making it okay to drink. These small items work well for long periods of time but in Mali problems such as keeping the water cool in the sahara desert isn't easy and we need something that holds a lot more water. So the system, companies like "Path" are using, is simply creating underground bunkers holding ground water.

They are insulated to keep the cool in. Not every family in poverty can afford these. So by putting these tanks in villages that everybody can use is the best solution. To us this is old news how wells work and that most people have one. In Mali it's a huge step for their Country.

In the End

In conclusion, we know that the future of Mali holds something that will definitely not only change their lives but could possibly start something that could help millions of other people living in poverty. When you get lost in the wilderness you are supposed to look for food, water, and shelter. It just so happens third world countries just like Mali have these three concerns. If you're lucky in your adventure somebody will find and guide you to safety. Well Mali and many other countries don't need luck. Supreme countries like the United States and more know where these problems occur. They need our help, a push to safety. With the systems we were using now in Mali last year we helped 43,000 people find safe water, and 39,000 improve sanitation in their facilities (Wateraid. Web.). That's a stride in the right direction, a stride that could save millions of lives because every life counts.

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