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Madagascar: Solving malnutrition in Madagascar

In Madagascar they call themselves "Malagasy". In Madagascar 33.4% of the population is malnourished. (Programme, http://www.wfp.org/hunger/downloadmap)Most of the people that are malnourished are children. Malnutrition is affected by low education levels, drought, floods, locust infestations, and low sanitary conditions. They mainly eat rice as their main meal and a type of protein or meat once in a while. Meat is a luxury in this country. Many of the families in Madagascar eat bush meat which is meat from wild animals. Lately there is a shortage of bush meat. The reason why they eat bush meat is because it has an abundance of iron and a source for many children. (International Food Policy Research Institute). In rural areas their primary schools are struggling. For many kids who finish middle school they don't continue on to secondary school because they are too poor. Six to fourteen is the average age of kids that go to primary school. There are very few kids in secondary school. Secondary school is mainly for the urban rich kids. Only about half of the country has access to health care. The life expectancy of men and women is about 65-68 years old. Most people are unable to afford health care because they live in poverty. Many children suffer from malnutrition and their growth is stunted. About 38,000 children die before their 5th birthday.

Most of Madagascar is rural. Some farms in Madagascar are underdeveloped. Only 5% of the country is used for crops. About 16% of the 5% is irrigated. Many farms are not that big and of the farms here most of them are family farms. The major crop grown is rice. They used to grow coffee, cotton, sugar cane, vanilla, and clove. They stopped growing some of these crops because they don't have large scaled farms anymore and mainly rely on subsistence farming. Half of the land is used for livestock and herding. One type of animal that they raise is Zebu beef cattle because they are adapted to the drier climate. They also export fish. Some types of fish they harvest are prawn and tuna. One major problem they have with their farming is the lack of knowledge. In some areas they do slash and burn farming. Slash and burn farming is when you cut down trees or brush and burn it to make pastures or fields. Slash and burning can be bad if they don't get the plants to grow back soon, the soil will be eroded away.

As stated previously, the major hurdle in Madagascar is 33.4% of the population is malnourished. Most of the people that are malnourished are children. It's affected by low education levels, drought, floods, locust infestations, and low sanitary conditions. About 63% of the children in this country suffer malnutrition and from anemia. Their lack of education towards farming is a major barrier because they may not know what types of crops or animals are suitable for their type of land and climate. Buying food is difficult for some families. If they don't sell enough crops, they don't receive money. For some that grow crops or raise livestock, it's hard to keep them alive with the frequent floods or drought. In Madagascar, there are few large cities like the U.S. As a result, it can be hard to find jobs. Most of the country can't afford to have adequate nutrition because of the poverty level. It can be hard for some people to access a market due to the distance they must travel. Most of the country is rural so, it's a challenge just going to a market. It could possibly take a person several hours to get to travel to market. The malnutrition rates are higher during the lean season than during the harvest season. During harvest people are able to eat their own food that they grow, but in the lean season you have to go buy food. In some markets there may not be even food to buy. In the lean season the price of food rises due to higher demand. These price increases are devastating to the poor.

According to IRIN News, one mother (Tahairitsoa) is 9 months pregnant and has a 15 dollar salary. She only works 10 days a month on a plantation. She has to provide food for 20 members in their household. For food, they receive one bowl of corn a day and they receive meat once a month when Tahairitsoa gets paid. According to UNICEF another mother said she had to carry her 5 year old daughter to the closest health clinic because she is suffering from malnutrition. That clinic was 10 km away. About half of the children population, under the age of 5 is stunted. Stunted is a condition caused by malnourishment in the first 1,000 days of their childhood. According to the UN Children's Fund they have the sixth highest incidence of stunting in the world caused by malnutrition. 80% of the people in Madagascar spend one U.S. dollar a day. Most people spend three-fourths of their income on food and still don't have enough to feed their families or households.

In Madagascar they are currently trying to prevent malnutrition. As referenced by UNICEF they are trying to give the kids who don't have malnutrition Plumpy'doz. (Corbett) Plumpy'doz is a substance that is high in the vitamins and minerals which these children desperately need. (Corbett) Even with this help, they still have children and adults with malnutrition. However, malnutrition rates in Madagascar are currently improving, but it is a slow, painful progress. By improving the people's knowledge about different farming techniques, we could help reduce malnutrition rates further. This would also help their country not be so poor, since as previously mentioned they spend three quarters of their income on food. Also, if we can improve malnutrition this would lead to a decrease in deaths caused by malnutrition. If we start now with education then we can stop malnutrition for generations to come. Then the children would be able to be kids and do fun things that most American kids get to do. If we stop it then people there won't be so prone to illnesses like the children being stunted. The people could actually have another type of protein or meat more than once a day. Solving the malnutrition problem in Madagascar would have a profound effect on the country.

The climate in Madagascar is hot and sub-tropical. (Ltd.) Because it is a sub-tropical climate on the coast it is prone to natural disasters. Climate change could change my solution in the future, by not being able to do certain farming practices successfully. In some areas they had rain to grow crops but now there may not be enough rain so now it's mainly desert. In the future and even now it will be a problem for the crops. Natural disasters have hurt Madagascar because they are an island and there is water all around them. (Programme) Natural disasters can hurt the crops so they won't be able to have food. The hurricanes could flood the crops, dig them out of the ground, and the wind could blow them to pieces. Population growth can affect malnutrition. When more and more people are born or who migrate to Madagascar, this would cause there to be less and less food, unless production of food is drastically increased. Population growth is one of the major causes of malnutrition in Madagascar.

Because Madagascar has an abundance of malnourished people, my organization S.M.A.S.H. (Stop Malnutrition and Start Helping), will try to improve their knowledge about how to prevent or even stop it. I think that the people in this country could learn how to use their land more efficiently. They will learn how to plant different crops that work in that type of soil and climate. In the South and West it is mainly dry there. The West also has grasslands. In the East it has many rainforests and in the North it is wet there and very mountainous. I will teach them different techniques that would work for their country. One thing that they already do is slash and burning. (Kremen) Slash and burning can be good only if they give that area some time to grow back and not do so soon in the same place. Another type of farming technique is irrigation. Irrigation would work since there is so much water around them. If they were to do irrigational farming then they would have to get a distiller to filter out the salt water, since most crops can't grow with salt water. We would need to figure out the number required with local government officials and determine how to fund these. Irrigational farming would be very prosperous for increasing crop production. They would be able to plant other types of vegetables such as tomatoes. I would teach them about other types of crops they could grow. For example, in the dry areas they could grow peanuts or other types of crops. In the wet areas that aren't too wet they could possibly plant sweet corn.

Madagascar is mainly a tropical rain forest biome but in some areas it can also be temperate rainforest. I would show them in little groups, ways to grow different crops to eat; like irrigational farming and show them how to plant them. Their whole country would benefit greatly. For their first planting, my organization would give them seeds, soil, and all their materials they would need so they would learn how to plant them and farm them. My organization would also give them fertilizer and insect control. They would need those things to make sure their crops are growing properly. In the little workshops my organization (S.M.A.S.H.) would tell them how to properly use all of the things that S.M.A.S.H. will give them. S.M.A.S.H. will also demonstrate and have hands on activities that they participate in.

Another way to improve malnourishment in Madagascar is to improve their knowledge about malnourishment itself. I would tell them about different eating habits that would work better than what they have now. I would also take over some books so they can read about being healthy and how to get healthy. I would show them in little "workshops" what they could eat to be healthier. The workshops would be cheap enough they would be able to keep them going when I leave. If I were to start these workshops in a community then hopefully it will spread throughout to other communities. To make sure that the workshops spread I would not only start it in one community but in others around the whole country. This would hopefully make it so more people are aware of these "workshops". It would be so helpful for the people that have acute malnutrition because then they could learn how to stop it. WFP could help out at the workshops to have professionals educating them on what to do. The workshops would be a positive thing for the people of Madagascar.

Some barriers to my solution would the Malagasy people not spreading the word of these workshops to other communities. In the future some people may not tell other generations about my solutions, so then it could possibly get worse. To prevent this, I would work closely with local government officials and community leaders to help with implementing for long term. Another barrier could be that they won't have enough money to do the workshops or for seeds. There can be organizations that donate or other people worldwide that donate to it.

In Madagascar they have a project called Community Nutrition Program. This project could help spread the word about the "workshops" and help out. (Group) In some areas this project has been a success. Many children, under the age of five, have died. 35% of those deaths have been caused be malnutrition. (Group) This type of program in Madagascar is trying to stop malnutrition. They are trying to have some groups in different communities to take over this and stop malnutrition. I think that to help them with this to be a more success is that they need to get everyone on board. They could have more of these groups all over the country. If they would have more people donate to this organization then they would be able to afford more things to get the word out about this program. By doing this the organization would be able to help more and more people in this country.

The national government will have to approve my solution in order to enforce it. Then I will go and educate them about the farming and malnutrition. I would need some pamphlets that they would be able to keep to use as a resource. Then when I leave that country the communities will keep on educating the incoming people. My solution to malnutrition will not die. The people of Madagascar will still be educated and new things will be told to them.

The average family could go to the workshops in their community to help them learn about malnutrition at no cost. The average family could learn what to plant in that area that they live in. If they do not have any extra land then I will have designated areas for the people that don't have any land. For the people who don't have land to plant the crops on, I will have places that are close to them. These will be fields that are just for the people who don't have extra land. They will all have to come and help take care of them. If it's hot and dry where they live then they could plant a type of vegetable that can grow in that region. They could learn different gardening skills that would work better than what they usually do. They could use different seeds that work better in their climate so they would have more food. Then when more

people come into the country, the Malagasy people that have already learned about malnutrition and about different farming techniques can tell them about the meetings and workshops S.M.A.S.H. has put on.

The reason why I was interested in doing Madagascar was because about one-third of the country is malnourished and because about 38,000 children die before their 5<sup>th</sup> birthday. The reason why they die is because they are stunted due to malnourishment. I've learned so much about this country and realized we take food for granted here in the U.S. I have learned that 33.4% of their population is malnourished. (Programme, http://www.wfp.org/hunger/downloadmap) I do think that in this country they do need to solve their problem with malnutrition otherwise it will continue and possibly worsen over the years. The people there won't know what to do unless someone cares, helps with funding, education, organization and starts finding solutions for the many problems associated with malnutrition. It is very important to stop malnutrition worldwide and it's time someone cared. I've decided I can be part of the solution.

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