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## Haiti: The Road to Recovery

Haiti is a tropical country located in the Caribbean. It has about 9.75 million people and is the poorest country in the Western Hemisphere. This small country has gone through several changes, experienced upheaval, and endured many natural disasters since 1994. The disasters include the infamous 2010 earthquake, one tropical storm, and six hurricanes, including Hurricane Gordan where 1000 Haitians were killed and Hurricane George where 400 people were killed and 80 percent of the crops were destroyed. These disasters made the already weak economy even worse and impacted the field of agriculture the hardest. Since the economy and agriculture have faced so many adversities and catastrophes most Haitian families are struggling and were forced to cut back on food, money, and supplies. They had to scale back before the economy took a downturn and agriculture took a hit, however since the earthquake these conditions made it even tougher for families to survive.

The average urban Haitian family has about six members and the income is a little under \$2 a day. The father's responsibility is to work and provide for the family while the mother's job is to take care of the children. Many mothers will give up eating just so their kids may get an education since it costs about \$500 to first send a child to school. Many families don't have the money but they try to send the children to school because it can increase the social status of the family, which is very important to them. Children are very important to the families and communities. Entire communities will help raise children who live in their area. About 53 percent of the people are illiterate and the country faces shortages in teachers and school supplies. Only about 15 percent of the population has health care, which shows because many children get infectious diseases from malnutrition. There are community gardens that churches do provide for people to use to help enhance their diets and nutrition. Many of the gardens include tomatoes, peppers, millet, carrots, eggplant, cucumbers and even peanuts.

Both environmental and economic barriers prevent improvement and development of agriculture in Haiti. Some of the barriers include erosion, deforestation, weather, and the reduction of employment opportunities because of the economic downturn. Only 3% of the land still has tree cover due to erosion and nearly one-third of the land has lost so much of its topsoil it is no longer farmable. Poor irrigation and drainage practices, construction, and heavy logging are all to blame for the erosion. Haiti was once a beautiful country and now it is dry and barren. Deforestation, the destruction of permanent indigenous forests and woodlands, has occurred because Haiti has no laws to protect property rights. Also due to lack of electricity and running water, most families rely on charcoal for fire, heat and light. Haitians kept cutting down trees to provide basic needs for their living conditions and they were not aware of the long term damage they were causing. While deforestation is one of the main factors in soil erosion, natural factors like heavy tropical rains and the mountainous terrain add to the erosion.

Besides these environmental factors, Haitians also face economic barriers. Most of Haiti struggles with poverty and trying to earn a regular income. Around three quarters of Haiti lives in extreme poverty due the over crowded conditions in cities. The cities have become over crowded because of the degradation of rural areas. This means people moved from the rural areas to the cities in order to find work and survive. Many people can't find adequate food or water because of the overpopulation. Only about 54 percent of the people have access to safe water and most of the children have malnutrition and can't make use of the food they are given due to infectious disease which means when they actually get to eat, the food that is given to them ends up making them sick.

The poor roads have a negative impact on Haiti's economy and especially agriculture. Only 10 percent of the roads are actually in good condition. Many people think of this as a small issue but these poor road conditions limit supplies and agriculture greatly. The roads in Haiti are very poor because of multiple reasons. Erosion has turned the nations main highways into muddy roads, which makes travel hard. Since it's hard to travel it's tough to bring food and supplies in or to get them. Another reason the roads are in such bad shape is the damage from the storms and most recently the 2010 earthquake. There are few farm-to-market roads in Haiti, which definitely holds back any progress or success with the field of agriculture. Much of the produce is carried by women on foot or by a donkey. Since a donkey or woman carries the produce the farmers are not able to send as much as they would like to the market which means they won't be able to make as much money and make multiple trips rather than one. In the 1980's, agriculture employed nearly 66% of the workforce and Haiti actually exported much of their rice. Now they import 60% rice and many other major supplies. Many households have problems trying to get food and rely on food assistance. The environmental issues factored with the poor condition of road causes jobs in agriculture to decline.

If new roads would be built and kept in good shape this would improve the output of food productivity greatly. Some people would ask why this would help. The improvement of the roads would impact the productivity of the agriculture industry in Haiti because it makes it safer and easier for people to travel. Easier travel on new roads would allow more people to bring their crops to markets. They would also be able to move large and heavy machinery wherever they'd need to. It would also lead to an economic boost because people would be able to leave the cities and start farming rather than be overcrowded in the cities where they are not able to have a source of income. An urban family would have a chance to get out of the city and start a new life.

The condition of the roads in Haiti is very poor. Since only about 10 percent of the roads are actually in good shape, one can only imagine how tough and how dangerous it is to travel. It's a very serious issue right now and the government has made it a point of focus. Other nonprofit groups are currently still working on repairing and rebuilding the roads such as the *Haiti Health Foundation* and *Repair Haiti*. Most people are impoverished by the poor road conditions. Many of the roads are basically mud and have caused many people to move to the cities because its tough to bring their produce to markets to sell. It also limits travel for many people. There has been improvement on the building of new roads. The tropical rains make this very tough but the government is trying to improve in the maintenance area. The only issue is trying to maintain them and keep them in good condition.

One major issue that could affect the building of infrastructures would be climate changes such as hurricanes and earthquakes. As already pointed out, Haiti has had six hurricanes, a tropical storm, and an earthquake in the past 12 years. With all these natural disasters it has been very difficult to build or finish any roads or railways. After the earthquake occurred many of the roads were blocked or damaged by debris caused by collapsed buildings or homes. The hurricanes also blocked and damaged the roads. Since there have been so many natural disasters in Haiti, they have never been able to get the roads completely finished.

Another major issue that holds back the building of roads and railways is the erosion. Many people would say that erosion would affect agriculture, which it does in Haiti, but it affects the development and the infrastructures that are already there greatly too. The erosion has caused the highways to be very muddy which makes to hard to travel on and to move equipment for the building of new roads. Also because it's a tropical island the rain only makes the mud that much worse. You can only imagine how tough it would be to try and finish or work on the roads with conditions that poor.

The poor road conditions and erosion affect Haitian families immensely. The current condition of the roads makes it very tough and unsafe to travel on. Many people are injured or killed from the poor roads.

The erosion would also affect rural families since erosion affects agriculture which would make farming very difficult. For an urban family the erosion would affect a family because more people would move to the cities, which are already over crowded and over populated. The overpopulation could increase if they don't solve the erosion problem because the urban families won't be able to move out to the rural areas and farm.

There are a couple of methods Haiti could use to help prevent erosion. The most common and widely used is to plant vegetation such as trees, shrubs, or any kind of plant. The roots from the vegetation help secure the soil in place. Another method is contour strip cropping which means that crops are alternated around the side of a hill. These methods can be taught and used very quickly for Haitian farmers and the Haitian government. The US government could help Haiti with these methods since the US went through a similar situation during the Dust Bowl. America was already heading towards a recession but natural disasters coupled with the stock market crash hit rural American families harder than urban families. The US government learned from this horrible experience and put into place soil conversation and land management programs that still exist today under the Farm Bill. Any government can provide aid but a more important key to success is educating the farmers and individuals so they can become successful again. America could share the knowledge they gain from our history to help Haiti recover.

It's very tough to try and repair roads when multiple natural disasters occur in such a short period of time. There have been plans to make better roads but they've had some setbacks with the earthquake. In 2008, the government of Haiti devised a \$197 million emergency plan including \$36 million which was spent on seed, fertilizers, and farm machinery. This plan also included repairing the irrigation facilities.

In 2009, Haiti decided to work with MTPTC, (Ministry of Public Works, Transportation and Communications), to develop new roadways including primary, secondary and tertiary roads. It's been one of the largest roadway projects for Haiti over the last couple decades. The project first allowed 10,000 jobs and the projected amount of workers was to be around 70,000. Gary Jean said, "We've never had so many projects underway at the same time." These amounts of jobs have created a slight burst in economy and caused local marketplaces to be close to the projects.

In Haiti's southern peninsula, the IDB (Inter-American Development Bank) is providing \$100 million dollars to fix up RN2, which is a main highway that connects Port-au-Prince to cities like Sud, Grand Anse and Nippes. This project first supplied about 300 jobs but it could lead to 1,500 jobs, which would also boost the local economy.

If these projects keep going and are eventually finished the roads would actually be safe to travel on. Also, if the farmers are shown proper methods for stopping erosion this would help the roads greatly and the agriculture in Haiti. The government should help with both projects and educating farmers. The government has invested heavily on fixing the roads but have had some set backs with the earthquake. The European Commission spent almost \$10 million for proper training on how to stop erosion and how to manage safe water.

I think the US should become more involved with educating rural families in order to protect the land and invest time as well as provide the resources to rebuild roads. The US has spent money to help Haiti rebuild buildings and many of the cities that were destroyed during the earthquake. However, the US needs to work on educating the farmers how to stop erosion. If the US does this, it would boost the economy by creating jobs as well as helping improve the roads. The US has already spent money towards the construction of new roads and should continue to do so.

Several groups and organizations have become involved in trying to help Haiti recover. The World Bank, an international financial institution which gives loans to recovering nations, has been involved with Haiti

by helping the government sort out their public accounts. The UN has also spent millions by helping Haiti with its road and other infrastructures. Other international groups tried helping Haiti with its agriculture and infrastructure development such as: the World Bank, World Food Program, and the International Fund of Agricultural Development. There are other small groups that have spent money, time, and sent workers to Haiti to help with the development of the roads and the agriculture.

Churches are another institution trying to help Haiti by supplying orphanages and building gardens in the orphanage. The Foursquare Churches, for example, have supplied many orphanages with school supplies, clothes, and seeds for the vegetables. They've also helped build community gardens with vegetables and a tilapia fish garden. They've also built a purified drinking fountain that sits outside of the orphanage and anybody in the community is allowed to drink from it. They haven't been able to help on the roads though yet but it is part of their future plans.

As you can see, Haiti could turn into a very profitable country if this country would fix the roads which help in achieving the solution for the agriculture problems. Repairing the roads would greatly impact the transportation of produce and crops. If families could get their yield to the market faster and more safely then they could make money faster and more frequently. The increase in the frequency of revenue would allow farmers to invest in their crops and this would result in more income for families and help rebuild the agriculture industry. This is easier said than done especially due to Haiti's tough climate. If the government focuses on these issues and invests in repairing the roads, Haiti could begin their tough but achievable road to recovery.