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### **Providing energy & water resources to increase agricultural productivity and provide for an expanding economy in Mexico**

The population in the world is close to seven billion people. As the population grows the farmers of the world are struggling to grow enough food to feed everyone in the world. With countries like China, the United States, and India that are way over populated, and many people are hungry every day and every night. Countries like Chad, Sudan, and Congo are struggling to grow and harvest food to feed their people but still millions of people go hungry. As technology grows and we learn more about the way our food grows and how we should take care of it we make more and more food. Still there is not enough food in the world to make sure every child has something to eat before they lay their precious heads to rest. Agriculture has come a long way from just adding water and making sure it gets enough sunlight. Now we have pesticides, and we are changing genes to make better, healthier, and larger food. We came from just using a horse pulled plow to having giant machines that go 55 miles per hour and are finished in an hour verses four days. Every day scientist are working out new ways to help us get faster machines to help us grow, harvest, save, and sell most of our crop instead of having to throw them away because they are rotten or have mold on them. In some countries children do not know how the food gets to their table; even some adults don't know how their food got to the super market and many do not even care. Yet, there are some kids who know how to grow their own food and even helped you get your food on your table, but they go hungry almost every night. Some children don't play with toys and watch television all day. Some children have to help their parents and work like an adult to make sure that they can eat, at least sometimes. As governments realize that their countries are suffering they are making changes and are trying to help their citizens to make sure that they are being taken care of. As I researched Mexico and how they are handling their food and agricultural activities I found some interesting things and I am glad I chose such an interesting country.

Mexico is a large country that has more than 100 million people in it, making it the 12<sup>th</sup> largest country in the world. Mexico City the capitol of Mexico is one of the largest metropolises in the world. A poor urban family living in Mexico, many families have to work twice as hard to make ends meet. A typical family in the urban setting has a mother, father, and one to two children. Many people work for the city but still have to work a second job to have enough money. Typically the father is the one working while the mother or wife stays home to take care of the house and children. Some people try to open their own businesses and the whole family helps run the business. But as times are getting worse and worse nowadays the mother is even going out to get a job to help bring in income for the family. The children go to school in the day and help out their family as soon as they get home. The girls help clean, cook, and take care of smaller siblings, while the boys fix things, and sometimes to get a job too. Most people in urban Mexico barely have a high school degree because some have to drop out of school to help the family. The government is trying to keep children in school longer and all the while trying to create better jobs for their parents. Many jobs working for the city or for the country are very dangerous. For example being a construction worker in Mexico is twice as dangeous as being a construction worker in the U.S. Many men die from heat stroke, from cars being reckless and hitting them, from falling rocks or bricks, and from having faulty equipment. As for the income of the job, it is not that great and that's why a lot of the people in Mexico have two jobs. A good income in the poorer part of the urban area is \$800 American dollars a month. These families usually go out to markets and stores that are typically around their houses but some go to larger

grocery stores and get their food from there. Their diets are mainly composed of tortillas, rice beans, and some meat and chicken. They often try to get lots of fruits and vegetables.

As for a typical subsistence farm in Mexico, they are really small and only grow for their families. Sometimes the families grow a little extra to sell in the local market. The families are usually bigger on a farm; they have a father, mother, and sometimes they have four to five children that help the farm. The father does all the hard labor on the farm and go buys the things they need to help keep the farm up and running. The mother usually helps plant and keeps the household running and in ship shape. The boys usually help their father in the fields and doing all the heavy labor. While the girls help their mother and sometimes go out and help the family harvest the crops. Some crops that the farmers grow are corn, wheat, rice, soybeans, beans, cotton, fruit, and coffee. The families usually eat what they grow. Some farms have cows or bulls for beef products, some have chickens, and some make things out of wood and try to sell those things. As for education the children go to school but many drop out, some not even finishing elementary school. The reason for dropping out is because the price to send the children to school is very high and sometimes the children have to stay home to help farm and tend to the house and crops. It is very hard for farmers to compete with U. S. farmers because of the cost. The land is very fertile and is rich, but because the government won't help out much, the farmers are struggling. The average size of a farm in Mexico is about 10 hectares or about 25 acres.

The factor that I chose was number four of the list which says "Providing the energy and water resources needed to increase agricultural productivity and provide for the needs of a larger population and an expanding economy." Without enough water and energy the farmers can not grow the food properly and then their harvest is poor. As for the urban families without enough energy the gardens cannot grow enough food to supply the whole city with food. Although this would cost the country more money, it would create more jobs and would help the country out in the long run because of all the good the program would do.

Not having enough water and energy is really killing the farms in Mexico because it is causing the farmers to become even poorer. Without the water the crops that the farmers are growing wither away and don't bear much. Without the proper energy the farmers are struggling to harvest their crops in time and then food gets rotten and can't be sold. The farms need the energy to keep them up to date with the new machines and the new equipment that is available to farmers to help boost food production. Without the water or energy the farmers are not making enough food and therefore cannot help other people and then everyone is suffering. As for the urban people without the energy some can't get enough money to buy the simplest of foods and then the whole family suffers. As more children are dropping out of school they are hurting the economy and with this boost in water and energy they have a better chance of staying in school. The economy is dropping because without the proper education needed to succeed the people of Mexico can't get higher paying jobs that could help their economy.

Women in both rural and urban areas are at a great disadvantage. Many of them have to stay home and help their mother keep an eye on the smaller children and get a job to help get things that the family needs. Some women even have to go out into the fields because they can not find work doing something like cleaning houses or working in factories to help. So they are out there planting crops and are harvesting and tending to all the major crops to help the family. The woman in Mexico plays a large role by doing all the housework and tending to the children and helping to cook and even taking care of the elderly people that are in their families. As for school some go up to elementary school and then have to stop for the reasons listed above. If the girl is fortunate enough to go on to high school and graduate they most likely would not go on to college because the great cost of it and the fact that the family likes to keep close eyes on all the

women. In some parts of Mexico it is the girl's job to get married to ease some pain on her family.

As of right now present day the factors are staying the same and are not really look like they are trying to change. It looks like the government is trying to help a little bit but it is not enough to make a difference now or in the future. The government is starting a program for children so that they can have a higher education so that working on a farm is easier. As the situation for the farmers it is getting worse and worse they are not even planting their whole farm, they are leaving acres out because they don't have enough water or energy to farm the land. As for the people living in the urban areas as I said it is getting a little better but the government is going to have to make a large change in order for it to help some people The government is seeing that the people are hurting and it is getting worse every year so every year they try to do little things thinking it would have the majorly huge impact nut it doesn't and the people are getting frustrated.

The environment should be very important to every country in this world. But many countries are not really interested in taking care of our earth. With the water that we are using we are growing more crops to help experiment with the natural ingredients that we could use to make a cleaner fuel. Also with the energy that we are providing we are helping with keeping the earth clean. We are helping people have more jobs in agriculture and with that we are creating cleaner air than what is present in Mexico as of now. Many people have problems breathing in the larger cities because of all the pollution. Lots of the pollution comes from factories that have been popping up all over Mexico that help create jobs, but the factories are creating a toxic atmosphere that causes thousands, almost millions, of people to get sick and some die.

With the clean water that would be provided, many people would be saved. Many lakes in Mexico have become so polluted and you cannot drink water from them. People have died from the poisons and toxins that have made their way into the wonderful waters of Mexico. Not only is the land and water being affected by these awful harmful toxins but wildlife are also being majorly affected. Many birds, lizards, snakes, and fish have become endangered because of the harmful chemicals in the earth and air. The lizards and birds were a major part of a successful farm because of the bugs that the killed. Many harmful insects that are eating away the crops and hurting the people working on the farm are not being eaten by their natural predators and that is another reason why farmers are struggling.

Another reason we need this energy so bad is so that we don't put even more harmful toxins in the air by burning coal and gas. With the good clean energy we could make a difference in how polluted the earth becomes over the next hundred years. With the clean water the famers and people in the major cities won't have to use polluted water to drink, shower, and cook with. Even some well water is contaminated by toxins and chemicals and the people don't have another supply of water so they are forced to drink that water and then they become sick and have to go to the doctors. Some people can't even afford a doctor and so they won't go and their condition become worse than it was and what could have been cured with a shot of antibiotics now has turned into something more difficult to treat. Why make people go through that when we could just help them and then they won't even have to worry about the water anymore.

If we give all the farmers in the rural areas lots of help I think that the outcome of the harvest would be greatly improved. The government has to be willing to want to help all the little farms just as much as the larger farms. If we give them enough clean water and energy to keep the crops growing strong not only would the farmer's appreciate it but the consumers would be happier and willing to spend more money on the great crops. The government also has to be

willing to help pay for some of the crop's seeds. In order for the water and energy to be put to good use it has to have something to help it grow. The United Nations has to be willing to want to help out with the taxing and the distributing of the crops to go all around the world. Without their help many people would not be able to get the fantastic tasting food that the Mexican people have worked so hard on. Private organizations are going to have to work with the Mexican government also to help package and preserve the food. For example if it is going to become canned apples the private company should help preserve the food to make sure it doesn't go bad and then they would can the product to help it stay fresh and then package it so it can safely be distributed around the world. It would take a lot of people's cooperation and time to help make this effort work. I know there are people out there that want to help the cause and they should step up and help. As many people say it is for a really really good cause.

One way that the government could give their people more energy is by digging for more underground wells. Another way is to do research on how to clean polluted water caused by the smog and garbage in the lakes and rivers. Those little things would help tremendously with the shortage of water. The government should also think about opening more environmentally safe power plants to help with the energy problems. They could also put wind mills up to gather energy. The government could also think about using the same method that China used to gain more energy by building a dam. If the government would just think about these things and try to push to get their people more water and energy it would benefit the country in so many ways.

If small scale farmers in urban and rural areas get the supplies that could be given then the whole country of Mexico would greatly flourish from it. Not only would people in rural areas would be able to get a variety of food but they would get to rest from all the back-braking work that they had to do the old fashioned way. The people in the urban areas would greatly appreciate the water and energy on a whole new and way deeper level. They wouldn't have to be so worried about getting sick all the time. The water would be safer and cleaner and they would get their food at a cheaper rate and then the whole family wouldn't have to work. They could focus on getting their kids to school and making sure that their children's future is shining brightly and they wouldn't have to worry about money so much. Almost everyone would improve from what this program would bring. The only people that would suffer would be the private cooperate owned companies that place their factories in Mexico for cheaper labor. They would not like the changes that the government is making so they would probably leave and take some jobs with them.

So if the government of Mexico would provide water and energy for the increasing agricultural needs of their nation, they would be better off. If they would provide them clean water to grow crops, not only would it help the food and crops but it would greatly help the people who are eating and drinking the water day in and day out. The clean water and energy would help the environment greatly because of all the toxins and chemicals that were being put into the atmosphere from the burning of coal and gas. With the clean water we would be helping the families that are farming the food in the rural areas and making sure that the families in the urban areas are being taken care of. People in rural and urban areas would not have to worry about getting sick all the time because of the contaminated water and air. If private corporations help us preserve and package the foods the world would be in better shape. If the United Nations would help us distribute the food world wide then it would be cheaper for everyone. If the Mexican government would help pay for the crops that the farmers would plant then it would be easier for the millions of farmers that are struggling to make ends meet. But not only would it help households in Mexico but it would help households like mine in the U.S. It would be cheaper food and products that are shipped in from Mexico. Now with the energy that is going to be provided we would have cleaner fresh air. The machines and equipment that the farmers would

use it on would help ease the labor on the family. Then the children could stay in school and get a good education. People in the urban setting wouldn't spend so much on food so then the family's children wouldn't have to get jobs so soon and have time to get a good education. Then they can get better jobs and they can keep improving the laws and things in Mexico. With the toxins in the major cities areas the cleaner air will greatly help ease the doctor's visits. Even as Mexico's population is decreasing the air would become fresher and cleaner. With all these conditions becoming better the women would have more time to better their rights and contain louder voices in households but also in the government. They can fight to have better rights and better jobs. Also the school systems would greatly improve if we get rid of the problems with the agriculture area. If the government could lower the prices to go to school many more children would go to school. Also if they construct more schools and rebuild the older schools and make them safer then Mexico would be going in the right direction. If you start to fix one major problem the rest of the problems fall into place and then you can correct them faster and more easily.

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