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## Poverty Reduction: The Key to Smallholders's Success

In order to meet the challenge of global food sustainability we must look to the world's smallholder farmers. There are an estimated 500 million smallholders worldwide, comprising of approximately seven percent of the population. With a number that large, they must be included in the solution of global food sustainability. Smallholder farming practices are important to biodiversity. Unfortunately there are large numbers of small holders who do not have the educational or financial resources to earn adequate incomes. By 2050, the world will have to feed nine billion people, and this will require an estimated 70 percent rise in agricultural production. Overall, the solution is poverty reduction in Mexico and in all corners of the world.

Mexico is the 14<sup>th</sup> largest nation in the world, covering nearly two million square kilometers, and an estimated population of 109 million people making it the 11<sup>th</sup> most populous country. More than one third of Mexico's population works in agriculture, which is of great importance to the nation's economy. Agriculture accounted for 4.3 percent of gross domestic product in 2009, up from 3 percent in 2008. Crop production continues to be the largest agricultural activity.

Subsistence producers make up about 40 percent of Mexican corn producers and are among the poorest population. A subsistence farmer grows only enough food to support his family. Any extra is sold for a little extra money. The diet of most subsistence farmers in Mexico consists of maize and beans with maize accounting for about 70 percent of their caloric intake. This maize appears in tortillas, which are often consumed, and dishes, mixing maize with beans, rice, and other foods. Meat is not very common amongst these poor farmers, mostly due to the cost.

The typical subsistence farm family usually consists of more than three children. Family unity and responsibility is a high priority. The father is usually the leader and provides economic support, while the mother is responsible for domestic duties. The mother and father often work in the fields together. The mother is the leader in some ethnic groups. More women from almost all ethnic groups are beginning to find work outside the home. Households may include members of the extended family. Children usually live with their parents until marriage, but sometimes they continue to live with them after marriage. Some farmers cannot afford to keep their children in school, therefore, pulling them out, especially girls. Others sacrifice their health care. The literacy rate is lower among indigenous and rural people. These factors contribute to this. They simply do not have the funds to supply their children with an education. Mexican citizens have access to free medical service at government-operated facilities. This is very helpful for people living near the facilities, but rural farmers have limited access to the facilities. One way indigenous and rural people cope with this is with the use of traditional medicines and the use of herbs to cure sicknesses.

Most subsistence farmers cultivate less than 5 hectares with land being distributed in small plots known as an ejido. The ejido provides common ownership of land but not ownership rights to the land. The ejido serves as a community of farming families. Maize and beans are Mexico's basic staple crops. In fact, they make up about 80 percent of the cultivated rain fed land in Mexico. This leads to the large portion of their diet that these two crops fill.

There are many issues affecting agriculture and agribusiness in Mexico. Agricultural productivity and farm family income will decline in Mexico as long as gender and cultural discrimination exist and unless there is improvement in access to credit and securing property rights for the poor. There is a strong direct relationship between agricultural productivity and poverty and the current factors contribute to conditions of poverty.

Individual characteristics, geography and politics are three causes that contribute to poverty in Mexico. Individual characteristics include the lack of education and job skills, intelligence, and health and social exclusions due to prejudice. Geographic isolation from society that rural people experience is another cause of poverty in Mexico creating a lack of primary health care, education and essential services. Politics contribute to poverty in the form of discriminatory support or lack of for segments of the population.

NAFTA has had a rippling effect on the Mexican agricultural economy creating many effects that have negatively affected rural agriculture in Mexico. The rural population is segmented between a small number of asset rich producers and a large class of asset poor farmers. The asset rich farmers are able to attract new capital while the asset poor farmers are experiencing decreasing government support which has been cut or redirected to commercial farming. This essentially further neglects the subsistence farmers and indigenous groups and has caused the situation to worsen. These farmers are in a bad situation which is only going to get worse, unless action is taken.

The smallholder farmers have seemingly been neglected for years. The problem is that they refuse to give up their farming; it is a way of life and they continue to farm in poverty. This is what leads to the inability to produce enough food for these indigenous people. Discrimination aids the poverty problem for these families. Cultural discrimination limits indigenous people as language barriers create employment and educational discrimination. Employment discrimination is experienced in Spanish speaking areas with their inability to speak Spanish. Spanish is the national language taught in the public education system and most indigenous people do not speak Spanish. Education is essentially unavailable to these people. Gender discrimination affects women in their ability to escape conditions of poverty. They have limited access to education, technological training and limited rights to own land in the current system.

The situation is not getting better and will continue to worsen unless somebody reaches out and helps these poverty stricken subsistence farmers. However, they have to help themselves, as well. It will take a lot of work to help these people rise above the poverty line, but it can and must be done. They continue to struggle for money and everyday essentials. They need them to help produce food for not only themselves, but for others as well.

Climate change, water scarcity will greatly affect the smallholder farmers of Mexico. Urbanization and migration also plays a role in creating new hardships for these farmers. Many of these issues will be a great challenge to overcome, and the current problems at hand must be dealt with first.

Obviously climate change is a big factor in affecting farming. It could change weather patterns causing big headaches for not only these subsistence farmers, but for all kinds of farmers all around the world. The only way I see to overcome this looming challenge is to outsmart the weather and be ready for any type of disaster.

Water scarcity is something that a lot of these farmers already contend. This leads to some of their poor crop production. They do not have the tools, knowledge, or funds to install irrigation systems. This is where they need help. They need to have access to these tools and knowledge and with that the money

will come. They cannot be pushed away or forgotten in the shadow of larger, more productive farms. If they receive the help that they need most of these farmers can tackle this water scarcity problem.

Urbanization hurts farming in the sense that it takes away many farmers from farming. We are going to need all the help that we can get in food production as the population continues to rapidly increase. This is why we need to help these farmers to succeed and to have reason to not urbanize.

Possibly one of these biggest smallholder farming issues, especially in Mexico, is migration. Many people migrate to the United States in search of a better life and ways to make a decent income, leaving acres and acres of land barren. This barren land is being unfarmed which hurts the industry and lead to land degradation.

Key points in solving the poverty problem in subsistence farming are funds for technology to be shared with the farmers, the access of health care and education, and the informing of these farmers of information on how to farm more successfully and efficiently. Policies requiring subsistence farmers to take a simple, informative course on how to make their farming easier and more productive would be good for the farmers. Education, healthcare, technology, and knowledge are what these people need to pull themselves out from poverty. They also need a desire to learn and except new ideas, but I am sure that that will not be a problem for these farmers learning how to better their lives.

Investing should go towards the construction of rural schools and hospitals providing healthcare and education for these rural families. These schools and hospitals should not be discriminatory in any way. This would backtrack on the problem at hand that is being solved. The schools and hospitals could possibly provide jobs for the once discriminated women and indigenous people in search of making a little extra money to help support their families. I feel that investments toward rural schools and hospitals would solve a few problems at once. It would provide health care, education, jobs, and money to these families in need of all of these aspects.

Classes or a simple course required, or at least recommended, for subsistence farmers would be very beneficial. It would help them to better understand how to farm the land and different tactics used to do so. They need to be informed about the negatives that come from depletion and how to prevent it from happening, as well as, the positives that come from certain things, like irrigation. This simple information could go a long way in helping farmers all around the world.

Technology aids in the high yields of American farmers today, so how would it not help poor Mexican farmers? Obviously, it would, which is why those farmers need to be granted that access to helpful technology. Investments in watering systems or tilling machines would benefit the farmers and the country's market. With these technological advances and useful machines, the small, ignored farms could evolve into the big, high producing ones.

I suggest that the nation government of Mexico increases investment towards schools and hospitals for its rural farmers. I also think that the investment in some technology and machinery for these farmers would be beneficial. Even a small investment towards these farmers could be a large help. One suggestion I have as to where they could come up with more money for these small, subsistence farmers is from the larger farmers. They should not completely cut off their aid to the other farmers, but taking a small chunk and giving it those farmers in need would, in my mind, pay off greatly in the long run. Those large farmers can take care of themselves and if the small farmers are aiding they may one day, too, be able to take care of themselves.

It would be a big help for an agricultural organization to send people to these subsistence farmers to teach them better ways to farm. These leaders would not need to assist very long and could establish community organizations that aids and spreads information between local farmers.

By getting these people out of poverty we can help more people than we know, including ourselves. Informing them of practical farming skills and giving them access to simple farming machinery can improve their production of crops greatly. They also need access to more land, which is very possible due to the large amounts of immigrants vacating useful farm land. Also, finding indigenous people and women in search of jobs with them is important. This would aid in pulling their families out of poverty, along with helping the economic situation. Just a few simple things; information, machinery, access to land, and access to jobs, can lead to the success of these hurting, farmers in need of money.

Communities need to help themselves. Fellow citizens need to help their neighbors and share ideas and equipment that they have learned and acquired. Perhaps one farmer has received information on a great farming technique; he can not keep that information to himself and watch his neighboring farmers continue to struggle. Information must be shared and spread. This is where the community organizations come in. I picture them functioning by having a community leader or two and a committee that receives important farming information and communicates with the farming community.

In my mind there are a lot of problems to be solved in addressing discrimination of the indigenous people and women and in securing property rights for the poor, as well as our upcoming challenges of supplying food for approximately 9 billion people. It will be a difficult task to overcome, but I believe that the ultimate solution is poverty reduction. By reducing poverty we increase the number of big time farmers and the status of the indigenous farmers and women, which would then be farming on a large and very productive scale. This would reduce migration, which then in turn reduces erosion and the amount of barren, unfarmed land. Simple steps can be taken to reduce poverty including improving access to health care, education, technology, and improved farming skills. If a variety of organizations, people, and governments come together this ultimate problem can be reduced not only Mexico, but in every nation.

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