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Colombia: Conflict Resolution with Biofuels

All Javier has known is how to fight and how to clean his AK-47. Javier has been serving in the guerrilla ranks since he was fifteen. His mother cried when he left. Javier came from a dead end town. No one in his small rural community had gone on to accomplish anything important; no one had gone to college, let alone high school. All his farming society knew was how to fight. Javier joined the guerrilla ranks because his mother could not afford the basic necessities of life. He joined to get clothing, food, and shelter, *not a gun*.

This scenario is all too familiar in Colombia. Currently there are about 11,000 child soldiers serving in Colombian terrorist groups. These 11,000 children make up about a quarter of all warriors in Colombian terrorist groups. To this day, Colombia is gripped in a multi-decade long civil war. The conflict is the leading cause of poverty in the region. The groups are all fighting for many diverse and different reasons. Violence is in every aspect of life in the region and corruption throughout the country and political groups is rampant.

Gripped in the middle of the battle are the millions of impoverished farmers living throughout rural Colombia. Taking the highest toll of the war, they are forced out of their homes to move to the urban slums. Traditional methods of rural land usage are failing and farming is not giving them the money and food they so desperately need. Most of the farms lack clean drinking water and proper sewage facilities. There is not even enough money to provide for their starving family's basic needs. Farmers lack the income to buy proper seed and equipment. Farmers are forced into the war. They need a way out.

Biofuels provide a promise for small rural communities. Many of the crops grown for biofuels are already grown on a small scale but are not currently accessible to poor rural farmers. Farmers can have a steady source of income by growing biofuel crops demanded by the world market. Opening the markets to them would allow a way to get food and shelter to the neediest of households. Freedom from financial worries would provide the farmers a way out of the cycle of being a poor farmer who feels he must resort to becoming a guerrilla member. The odds are currently against the farmers. Barriers need to be overcome to create peace in a warring nation. Fighting will not solve conflict in Colombia, only preventing the poor farmers from becoming a part of the destructive cycle and understanding their basic human needs can create peace.

Subsistence farm families usually consist of a husband and wife and an average of three children. The extended family can live with the farmer and his wife, which can put as many as about fifteen people in one household. The farmer is usually the only family member with a substantial income in a home with many hungry mouths to feed. Corn is a staple in the Colombian diet because it can be grown on virtually any land. The family also usually grows and eats potatoes, cassava, and beans. Indigenous fruits are also eaten. If the farmer has more disposable income, they may also have a dairy cow and a couple of chickens. Education is not a very important ideal or goal in Colombia. A typical farmer usually receives about four and a half years of primary schooling, if any, in a public school. They usually do not go to any formal agricultural school or trade area of study. The lack of schooling is one of the leading causes of poor crop growth and leads to child recruitment in guerrilla groups. With the lack of market incentives, a typical farmer only makes about 800 US dollars a year.

The average size of a subsistence farmer's land is about twenty hectares which can include grazing pasture for animals and buildings. The farm usually produces crops like rice, beans, cassava,

potatoes, barley, corn, and wheat. Farmers use traditional methods of planting, using dilapidated machinery passed down from generations, or some still use manual labor instead of machinery. Farmers also use seed from past years, instead of buying genetically better seed for the planting of next season's crops.

Small farmers are in a virtual dead end. Most do not know how to increase crop yields or how to grow the crops properly and more efficiently. The land may be overworked or lacking essential nutrients. Without knowledge, the farmers cannot utilize their land to its greatest potential. Local markets in Colombia are also dwindling. With more farmers and their families abandoning their old rural lifestyle, the markets have less to sell and even fewer people to sell it to. Rent prices for rural and agricultural land are also rising. As the landlords demand more money due to growing inflation rates, farmers are forced to spend more money on farming and less on their needy families. Interest rates for farm loans are also steadily on the rise. The farmers get little to no financial assistance because no investors or groups want to invest in what they see as an uncertain future with no financial benefit.

Colombia is gripped in a multi-decade long civil war where all three sides demand a different outcome. There are three different forces to deal with in this civil war: the guerrilla warriors, the Paramilitary forces, and the Colombian military.

The guerrilla soldiers are mainly made of two different groups: the FARC (Revolutionary Armed Forces of Colombia) and the ELN (National Liberation Army). Both designated as terrorist groups, they are formidably dangerous. Both organizations say they represent the rural poor and they are against both the wealthy of Colombia and the United States. They also oppose multinational corporations and the privatization of natural resources. The larger FARC has around 12,000 to 18,000 members and they inhabit almost half of the country. The group was created in 1964 by a wing of the old Colombian Communist party and the poor rural peoples. Their main occupancy areas are the jungles of the southeast and the plains at the base of the Andes Mountains. The ELN was founded in 1966 by radical Catholics from Cuba who wanted to repeat Castro's Cuban campaign in Colombia. Though both groups have similar political beliefs, they are rivals and direct threats towards each other.

The Paramilitary forces or the AUC (United Self-Defense Units of Colombia) are now seen as the worst violators of human rights in Colombia. They are a group of warriors that protect the rich and elites' ideas and values. They also support large plantation owners, which can directly threaten small farmers. Though the Paramilitary forces have been dubbed a terrorist organization by the United States, they openly fight alongside Colombian's national army when it suits them. Perpetuating the drug problem, seventy percent of the AUC's funds come from drug trafficking.

Colombian's national army is trying to bring stability to the country. Consisting of 145,000 military personnel and 105,000 police officers, the country is still struggling within itself. The government denies ever working with the AUC but many scandals have erupted due to that very issue. A United States funded program, Plan Colombia, is a three billion dollar plan for the country of Colombia to attack the "war on terror and the war on drugs". Over eighty percent of the funded money goes directly to police and military forces.

Farmers now in the conflict are having an increasingly hard time to make enough money and grow enough food. Farmers are forced to pay the guerrilla groups bribes to keep their farms safe from attacks and destruction. Enough money is spent by farmers trying to protect their land from the guerrilla groups, that it funds over seventy percent of the ELN's activities. When the farmer's money finally dwindles to nothing, he has four main choices: to join the guerrilla or Paramilitary forces, migrate to the interior of the jungle to cultivate coca (which promises some profit), to become a factory or large plantation worker with horrible living conditions and a meager salary, or he could have to resort to

bringing his family to the urban slums. Most of the farmers join the terrorist groups, continuing the vicious, destructive cycle.

There are many reasons why the production of foods on subsistence farms is hindered. Many of the farmers have no money to purchase quality seed or proper equipment to work their farms. In the 1990's, the Colombian government stopped subsidizing the agricultural sector. This made the small farmers unable to compete with the larger farmers and the plantation owners, forcing them to be driven off their land by the tens of thousands.

Today, millions of Colombians do not have sufficient access to food, clean water, or health services. Of the 44 million people who live in Colombia, 10.6 million of them are rural people living in poverty. Forty-four percent of those people live in extreme poverty, unable to satisfy their basic needs. Currently only ten percent of all rural households have access to safe drinking water, thirty-seven percent have proper sewage access, and only fifteen percent have access to a telephone. Women are especially hit hard with rural poverty. Forty-eight percent of the rural population is women and women head an estimated twenty-four percent of all rural households. Of those households, sixty-one percent live in poverty and in cases of extreme poverty, fifty-six percent of the households are headed by women while only fifty-two percent are headed by men. Even among the displaced population, sixty percent are women with their children trying to flee from the violence and conflict while the male member of the family stays behind to watch over and take care of the farm. Women are also having fewer children since they are burdened by the more traditional "male" roles of providing for the family. Thirty-one percent of women now work in agriculture. Currently with more women in the workforce, they still only earn twenty-two percent of the income earned by men.

Violence is beginning to subside in Colombia. Military forces have reduced the size of many of the guerrilla forces. In the past some guerrilla forces have turned in their weapons and have become a political party. Peace talks have been instigated with the FARC and the ELN. Though the meetings were fruitless, they are still seen as progress in the steps towards Colombia becoming a peaceful nation. The AUC has called for a demobilization of their troops but they are still actively fighting. Though violence is not as prevalent, rural unemployment is still rising. In 2002, rural unemployment grew to almost twelve percent compared to only five percent in 1994. More and more of Colombia's people are losing sources of income and have nowhere to go.

Colombia's land is becoming more and more inhospitable and degraded due to conflict. Between the years of 1986 to 1997, 79 million barrels of crude oil had been spilled due to attack on rural pipelines. The spilled oil kills plants and animals and eventually seeps into the drinking and groundwater. The various military and guerrilla groups also take advantage of landmines. Landmines are a commonly used weapon of war that can kill or ruin lives or potentially cause arable land to be deemed unusable. Colombia is the only country in the Western Hemisphere to currently use landmines. There are presently 130,000 landmines in an area of 77,000 square miles, about half of the size of California. The number of casualties is also increasing. In 2000, 66 injuries were due to landmines but that number grew to 314 incidents in 2006. Many other injuries were likely to have happened but were not reported because the incidents occurred in remote areas. The effects of a landmine can also be extremely devastating to a farmer. Not only does the victim have to pay for medical costs, they also lose the ability to do their job well and make enough income for their already impoverished family. One out of every four people that suffers a landmine injury dies. If the farmer passes away, the family may have to move to the urban shantytowns and live with virtually no income. Children are also extremely vulnerable to these attacks. Half of all the landmine incidents happen to children. To this day, even more landmines are being placed in Colombia. Guerrillas are planting about 26,000 land mines annually mainly because they are cheap to produce. The price of a landmine made by the government military industry costs five to seven dollars but a unit made by a guerrilla costs less than three dollars. Landmines planted by guerrillas are difficult to

detect and therefore more dangerous because of the variety of materials they use to make them. The government claims they do not plant any more landmines after they signed the Mine Ban Treaty of 1997. There are roughly 20,000 mines still in place protecting barracks and other strategic places that pose a threat to the Colombian people.

Creating peace would greatly benefit the people of rural Colombia. Families would not have to pay for protection payments to keep their farms and children safe. People would not be pressured by the terrorist groups to join their ranks or to grow illegal crops to fund them. Many of the families would not have to leave their homes and go to the urban slums to live a poorer life than what they had.

Biofuels have the ability to switch the trend of a poor Colombian farmer to a “farmer of the future”. Concerns exist about using farm ground currently utilized for food production being transformed into land used to grow products that are not eaten and are intended to go directly to market. Coffee farmers for years have been living on income from crops that they cannot eat. So we know this switch in land usage is feasible and could provide great agricultural possibilities for Colombian farmers. Coffee farmers are able to survive because there are terrific market incentives and demand for coffee beans. The future of biofuels promises the same demands and rewards. The coffee farmers’ land is also relatively small, ranging from five to fifteen hectares, about as much or smaller than a subsistence farmer’s land. If the farmers have a steady income, they would not have to resort to joining the guerrilla groups, which would cut the cycle of continuous poverty. With a safer crop, unlike coca and cannabis, no protection payments will be needed to pay the terrorist groups. An added benefit is that terrorist groups will not be able to make drug money, the main source of their income.

Biofuels could easily be implemented in the small, rural Colombian farms. Many crops can be grown: corn, soybeans, rape seed, switch grass, sugarcane, and particularly, oil palm. Oil palm, a plant grown in tropical regions, can easily be cultivated in Colombia. Already, 378,481 metric tons are being produced. Oil palm has the potential to be grown on about five and a half million hectares and the fruit is very efficient, producing twenty-two kilograms of palm oil per one hundred kilograms of fruit bundles. Fedepalma, the oil palm producers association of Colombia, plans to have two million hectares of oil palm under cultivation by 2020. Sugarcane can also be grown in Colombia. Annually, 1,061,272 metric tons of sugarcane is produced, mostly in the Cauca Valley region.

Farmers need to become more knowledgeable about farming techniques and how to bring their crops to market. Farm machinery and methods of production need to become updated to increase crop yields and income. I think farmers should be encouraged to attend classes about agriculture, business, and marketing. They should also be able to have active community meetings to discuss issues and take full advantage of being a community. Access to more land and capital to farm more land and become bigger farmers would help rural Colombians utilize the potential of their land. Currently, other countries and corporations will not invest in the uncertainty that exists currently in subsistence farming. A new beginning is what they desperately need. Access to local and global markets to get their products out into the world would benefit this country. Farmers also need access to non-farm markets. This would include access to technology, processing and trade areas, and legal services. After researching the contributing issues, I believe the implementations of these ideas will greatly enhance rural Colombians’ lives and contribute renewable fuel to the world energy market.

I believe the United Nations should set up initiatives and assistance to open the market for international trade from small farms. Deadlines also need to be enforced towards reducing the amount of violence in rural areas, allowing for continual growth in the community. The FAO (Food and Agriculture Organization of the United Nations) should implement programs that provide farmers with agricultural education and information about marketing and production techniques. The Colombian government should be encouraged to start funding small farmers and allowing for machinery loans. The World Bank

must set up programs that allow farmers to qualify for low interest loans that would allow Colombian farmers to access the basic necessities to become a modern day, profitable farm. Colombia has agricultural land that has the capability to provide for its people's food and income needs as well as contributing towards the world's growing energy requirements.

Biofuels provide a tangible future for the subsistence farmers of the Colombian region. Changing agricultural practices to produce biofuel crops has the ability to become a life giving force for Colombia that can rejuvenate their rural communities. Biofuels would give Colombia an opportunity to gain importance in the agricultural world and allow trade to be more prevalent. Growing and producing biofuels would permit an opportunity to break the cycle where poor farmers become guerrilla warriors to sustain their families. Peace is what the nation needs and biofuels could allow a transition to harmony.

Colombia has possibilities and potential to grow and produce biofuels. They possess the farmland to grow the crops required for profit. Farmers need to take advantage of the land and the resources the country provides. Colombia needs help from the world to achieve the goal of becoming a peaceful nation. Markets need to be set up that allow the straightforward selling, transferring, and producing of biofuels and their products. Without efficient markets, the farmers' products are unable to travel and otherwise go to waste. Farmers should take advantage of the helpful resources and services a community lifestyle provides.

Though the future seems hopeful with biofuels, there are still many hurdles to overcome. Violence must subside to allow a peaceful transition to an efficient nation. Women must also be more recognized in the work force as a formidable factor in providing income. The government and other corporations must also work toward providing agricultural education for the farmers. With increased agricultural knowledge, yields may increase and the farmers will earn more profit. Corruption must also be controlled throughout the country. The Colombian government must step up and enforce stricter policies with the AUC. Loans and other types of financial assistance must also be made available to give farmers the lifeline they need to become larger, more efficient farmers.

Colombia has the agricultural resources and potential for change. Javier, the child mentioned earlier, is representative of the thousands of Colombian youth forced into the violent guerrilla conflict. Children are not pawns or just smaller soldiers in a war. Children are the future and biofuels could make the nation of Colombia and her children's future brighter.

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