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## **The Role of Biofuels in Increasing Political Stability in Central Africa**

Maize varieties that are high yielding, drought tolerant, and early or extra-early were introduced to Central Africa in the 1980's. The land area used for farming has also been increasing. Why then, has food production per person actually declined by 13 percent in Central Africa since 1980? The answer is the political instability of the region. If the political situation in many Central African countries could be improved, subsistence farmers in those countries could improve their yields substantially.

Around 60 percent of African workers are employed in agriculture and about 60 percent of those employed in agriculture are subsistence farmers. Subsistence farms provide food and a small income for the family that runs it but not enough money for the family to be able to re-invest. As a result, they have scarcely enough money or food, and are unable to invest in more land or higher yielding crops.

Larger farms operated by large corporations usually grow cash crops like coffee and cotton. This is because countries like the United States and Japan protect their own farmers with tariffs and subsidies. This leads to overproduction of crops such as grain and milk, driving prices down. As a result, the only way for African farms to compete is to produce cash crops that can't be grown easily in a northern climate. African farms end up exporting to the West while people on their own continent starve.

If developed countries worked with African governments to create policies that helped subsistence farmers to improve yields, there would be many benefits. There would be more food to feed the people in those countries; the farmers could use their crops for biofuels that would bring new money and development into the economies; the increased food supply and improved economies would lead to greater political stability. In this paper, I will explore what effect the production of biofuels would have on the food supply, economic situation, and living conditions of subsistence farmers in Central Africa.

In order to understand the barriers facing subsistence farmers in Central Africa, it is best to understand the how the farming families live. The fertility rate in Central African countries ranges from 4.41 children born per woman in the Central African Republic to 6.37 children born per woman in the Democratic Republic of the Congo. This means that families on these farms have to feed an average of anywhere from six to nine people with the food they are growing.

Cassava, millet, and sorghum are the primary crops grown by subsistence farmers in Central Africa. Many farmers also grow some vegetables to be eaten with the root and grain foods. Subsistence farmers live-off the food they produce. These crops provide a small income, but not enough to fund reinvestment in more land, equipment, or new technologies.

Rural poverty rates in Central African countries vary greatly. Cameroon is on the low end at 32 percent. On the high end are the Central African Republic at 77 percent and Chad at 67 percent. In Central Africa as a whole in 1999, the life expectancy was 48 years and female illiteracy was 54 percent. In 1990, the percent of children enrolled in primary education was 68 percent. Central Africa was ranked 138<sup>th</sup> out of 162 in human development in the 1999 Human Development Reports.

The gross national income per capita in Central Africa declined from 625 constant United States dollars in 1980 to 497 constant United States dollars in 1999. The steepest decline in gross national income per capita took place from 1980 to 1995. The gross national income per capita stayed more or less the same from 1995 to 1999.

The main factor preventing improved productivity and income is the lack of stability in many Central African countries. In Congo in the late 1990's, political violence displaced about one third of the population. Of the refugees who remained in the country, about 70 percent, or 550,000 people, were malnourished. In addition, about 50 percent of agricultural tools and 70 percent of Livestock were destroyed or stolen.

Similarly, the Central African Republic has seen much unrest and violence recently. This has caused many farmers to flee their farms. About 230,000 to 300,000 were internally displaced and another 42,000 became refugees in Chad. The fighting also caused more than 2.2 million people to lose humanitarian assistance. This situation receives little attention due to the ongoing conflicts in larger neighbors Sudan and Democratic Republic of the Congo. Fear of violence has prevented many farmers who have returned to their farms from working. The lack of humanitarian aid has also caused widespread disease without any medical treatment.

Developed countries have provided a constant flow of aid to Africa, however, for a long time, much was wasted or misappropriated by corrupt governments. During the Cold War, the United States and the USSR turned a blind eye to this corruption in order to form alliances with the corrupt leaders. Currently, the failure of government supervised mega-projects has caused many to believe that small grants to local businesses are a more effective way of promoting development in Africa.

One form of aid in particular that has come under intense criticism is food aid. Critics say that it doesn't solve any long term problems and that it leads to dependence on the source of the aid. Examples like the famine in Amartya Sen have shown that famines are usually the result of a lack of income, not a lack of food. In these cases, food aid damages local agriculture and mainly benefits Western businesses, which are benefiting from government subsidies. Evidence suggests that food aid is usually the result of excess supply in the West, not the result of need in Africa.

Vast sums of aid that are misappropriated by corrupt and violent leaders are not only of no benefit to poor farmers, but may also harm them because the aid helps to keep the leaders in power. In addition, food aid can be used as a means for controlling people by using the threat of withholding the food. Without this aid, farmers are forced to use all their resources to provide enough food for their families to survive, and are never able to make investments that will allow for future growth. They survive from one harvest to the next.

One possible explanation for this is the fact that a declining portion of aid has been used for agriculture. From 1985 to 2000 the percent of World Bank Lending used for agriculture declined from 21.2 percent to 8.5 percent. Even as Africa continues to receive aid, less and less of it is going to the struggling subsistence farmers who could need it. The declining portion of lending used for agriculture is already having possible negative repercussions.

Food production per person in Central Africa declined slightly from 1980 to 1999. In countries such as Congo and the Democratic Republic of the Congo, this is the result of lengthy wars. In Equatorial Guinea and Gabon, as well as Congo to a limited extent, it is the result of increased food imports paid for by oil revenues.

Central Africa has seen improvements in many social indicators since 1970. Female illiteracy has decreased from 90 percent in 1970 to 54 percent in 1999. Infant mortality has decreased from 15 percent to 8.8 percent. Life expectancy has increased from 42 to 48 years. While these are improvements, all these categories fall well short of figures for developed countries. While on the whole conditions in

Central Africa seem to be improving slightly, each family faces uncertainty each day as to whether they will all survive until the next.

If small grants were given to local businesses and farms, bypassing corrupt and inefficient governments, farmers would have opportunities to invest in their farms to produce enough food to feed their families and produce a more substantial income. Before this can happen, those who provide aid need to gain access to the local farmers and businesses without having to deal with the governments. Farmers also need to be confident that they are safe before they invest large sums of money in equipment and land.

If this was to be achieved, children could go to school instead of working on the farm; surpluses of food would allow some people to take up occupations; the economy would improve drastically; and greater prosperity would lead to greater political stability. The key to all this is supporting honest and well-intentioned leaders and creating incentives for corrupt leaders to open up their countries and work to end violence. Once that is achieved, aid groups and developed countries will be able to help subsistence farmers and promote peace.

If aid groups were able to help subsistence farmers get grants to invest in their farms and increase yields, a lucrative opportunity would arise. That is the opportunity for the farmers to grow crops that could be converted to biofuels. Brazil is already leading an effort to get biofuels from Africa. Its national oil company, Petrobras, has already teamed with the Italian energy firm Eni to explore African biofuel sources. They also have plans include the construction of a biodiesel plant in Angola.

In Africa, the product is likely to be biodiesel, not ethanol. An ethanol plant costs roughly \$85 million to build and requires a much larger investment than biodiesel. Biodiesel is much cheaper to produce on a small scale. Most of what would be produced in Africa would be produced on a small scale by subsistence farmers. Therefore, biodiesel makes more sense for companies looking at investing in Africa

Many economists have expressed fears that the production of biofuels will compete with food production, possibly causing a food shortage. This is why political stability is important to both the people of Africa, as well as to the success of biofuel production in Africa. It is important to the people, because it allows farmers to get financial aid that can help them increase yields, ensuring that there is enough food to eat. It is important to the success of biofuel production in Africa, because companies will not invest in biofuel production in countries that they feel are unstable. That is why it is crucial to everybody that these countries achieve stability.

Countries cannot develop biofuel industries until they achieve stability. Stability has to come before investment. This is important to everybody. If crops are used for biofuels before there is enough food to feed everybody, more people will starve. If people are starving, unrest will break out, and the biofuel industry in those countries will fail.

The good news is that the prospect of biofuel production is an incentive for violent or corrupt leaders to change in order to lure investment to their country. They understand that increased investment in their country is good for them and that they need to create conditions that will lure foreign corporations.

Biofuels have the potential to help Africa immensely. China, Europe, Israel, and Brazil all have expressed interest in producing biofuels in Africa. Some experts think that if 25 percent of the land in Africa considered suitable to grow a plant called the jatropha was used for that purpose, it would end African poverty. This cannot happen unless a myriad of things are done.

The United Nations and powerful countries of the world have to pressure Central African governments to allow aid to go straight to the people, to work for an end to violence in their countries, and to allow democratic elections. This will not be easy. Economic sanctions will only cause more suffering among the general population and military action will only lead to further bloodshed. The African leaders will need to be offered incentives for democratizing and cleaning up their governments. The United Nations will need to be willing to commit peacekeeping forces large enough to do their jobs.

The World Bank will need to work with the United Nations to bypass the governments and give smaller grants directly to local farmers. This will require a whole new system be put in place for managing this program. There will need to be enough oversight to avoid fraud and make sure money is being handed out fairly. Furthermore, the money cannot be handed out unconditionally. There will need to be requirements for how money is invested and goals for crop surpluses.

Corporations will need to continue to invest in African biofuels. This will require countries to work together. China is often perceived as competition to the West for energy resources. Western countries will need to be willing to work with China, which has expressed considerable interest in African biofuel investment. Also, all corporations involved will need to pursue strategies which not only benefit them, but also take into consideration the needs of the people of Africa. This is important for everybody. If all the crops produced are used to make biofuels, the population will starve. As a result, Africa will once again descend into war, political unrest, and poverty. If that occurs, the investments in Africa will fail.

Central Africa today is a region of war-torn countries with minimal growth. Many rural people live in poverty and don't have enough food. Violence often claims the lives of innocent civilians and causes thousands or hundreds of thousands of refugees. In its current state, progress in Central Africa does not seem very likely. A great and fundamental change needs to take place before things can truly start to improve.

Change is required from everybody. Other countries will have to change the way they deal with African governments. Corporations will have to change the way they do business in Africa. Aid groups will have to change the way they distribute aid. Most of all, the Central African leaders will have to decide to change the course of their country.

There are a great many things wrong in a region where the life expectancy is less than 50 years and less than half the women are literate. The problem is that the people of this region are in a daily struggle for survival. Not only do they struggle to get enough food, but they are caught in the middle of conflicts that often date back hundreds of years. When they are struggling to survive, they don't have time to learn to read or write. With all they face, it is no wonder that they aren't expected to live for 50 years. For things to improve, they have to change the way they think.

To many people of the world, democracy is a totally foreign concept. Somebody has to help them realize that they have a right to determine their own fate. If they are to rise above the lives they lead now, they have to understand that. Until that fundamental change takes place, Central Africa's full potential cannot be realized.

Biofuels present a great opportunity for Central Africa. If they are able to make the necessary changes to facilitate the biofuel industry, it could have huge effects on their lives. If governments could stabilize themselves enough to allow farmers to increase yields, Central Africa could produce enough crops to feed the population and produce biofuels. If that occurs, the biofuel industry will create new jobs

and bring new life into the local economies. When everybody has more money, peace is far more likely. Peace increases the chance of more foreign investment.

If everyone is willing to do what it takes to get Africa moving in the right direction, things will only continue to improve. Peace will bring prosperity. Prosperity will bring greater peace. Greater peace will bring still greater prosperity. While many things are going wrong in Central Africa, it is also on the verge of realizing its enormous potential.

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