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The Cocoa Crisis in Côte d'Ivoire

Côte d'Ivoire is in West Africa, bordered by Liberia and Ghana. They have a population of 25,217,000 spread across 124,504 square miles of tropical forests, savannas, and mountain ranges. Along the coast, white sand beaches and world renowned resorts are bordered by palm orchards leading to the dense inland tropical forests. Near the very center of Côte d'Ivoire lies their capital, Yamoussoukro. Designed by Félix Houphouët-Boigny, the once small town was designated to become a bustling center of commerce, legislation, and religion. However, very few buildings stand here besides a few government funded landmarks, including the largest Christian church in the world and the presidential palace, guarded by the nation's sacred crocodiles. The southern half of Côte d'Ivoire is packed with lush forests, including over twenty-one thousand square miles of protected parks and reserves, spotted with picturesque lagoons to the east near Ghana. The north of Côte d'Ivoire consists of expansive savanna-grasslands littered with the classically associated fauna such as elephants, hippopotamuses, buffalo, and many species of small antelopes. Growing within this paradise is an industrious population, the producer of food and raw materials exported worldwide. Even as one of the less sizable countries in the world, it has a huge impact on our global supply of fruits, nuts, textiles, and most prominently, cocoa. The Ivory Coast exports more than 40% of the world's cocoa beans, mostly from their largest port city, Abidjan. Côte d'Ivoire had a history of relative stability and safety until 2002 when the First Ivorian Civil War broke out. While the war officially ended in 2007, tensions remain tense. In 2010, the long-delayed presidential election was completed and designated a new leader, Alassane Ouattara. The previous president, Laurent Gbagbo, denounced the results, accusing many of the regions participating in the election of fraud. The country was essentially torn in two, reigniting the smoldering embers of civil war.

This national conflict turned a large majority of the state into a disorganized warzone. For the first time in the country's history, more people were fleeing the violence to Liberia and Ghana than immigrating for its bustling economy and bountiful utopian landscape (Côte d'Ivoire Net Migration Rate, Knoema. , 2018). Around three thousand were reported dead as we crossed into 2019. Lootings were common and political lines were drawn through the sand, soil, streets, and most importantly the farmlands. Internationally backed, Ouattara held the Northern regions of the country, while Gbagbo held the southern regions with more Ivorian military support. Laurent Gbagbo used cocoa exports as a large portion of his income. Ouattara thus called for a month long country wide ban on exports of the coveted bean. While Ouattara did not hold any power over the ports, this did hinder some of Gbagbo's income, as many distributors did not want to be associated with illegality in the eyes of their global business powers (J. Cooke). However, this also meant fewer sales for local cocoa farmers, often relying on their next income for food.

Worse than not being able to sell their crops, some could not even tend to their family's farms at all. During the violence, hard hit regions were obviously dangerous. People were often confined to their mudbrick houses, as leaving your home for more than a few minutes could be the last time you see it. With a majority of Ivorian citizens living in urban areas ("Côte d'Ivoire - Urban Population", 2016), it could be a long way to their fields. Few would risk their lives for their crops. When the dust settled, the area's residents needed profits fast. This didn't always mean returning to their small, 5-10 hectare farms, getting operations running again, waiting for an optimal time to harvest. This usually meant expediting the previous process at nearly any cost, often through rapid expansion.

First, cocoa bean producers turned to slash-and-burn methods (A. Daoui). Soon the forests surrounding an agricultural town were felled and torched, filling the air with smoke, and the ground with nutrients and ash. Then cocoa trees were planted and raised to make profits as soon as possible, often very close together. When you need money to survive, soil health is put on the backburner. Due to excessive strain on the soil, and the lack of conservation practices, the soil rapidly deteriorated. Seeing the sudden success of previous slash-and-burn attempts, and the lesser results of continued agriculture on a plot of land, more of the forests were cut and replaced with farmland, putting out cocoa that could, for the time, keep up with growing global demands. Slash-and-burn slowly began to replace the ancient semi-sustainable practices. When Côte d'Ivoire gained independence in 1960, 16 million hectares of its landscape was considered heavily forested, while now that number has dwindled to 10 million hectares (Mongabay, Côte d'Ivoire (Ivory Coast), 2006).

The additional hands needed for additional land has led to a sudden surge in child labor. The Bureau of International Labor Affairs found that in 2016, 819,921 children between the ages of five and seven were reported to be working illegally within the Ivorian borders. Over fifty percent of these children reported sustaining injuries while on the job (Child Labor and Forced Labor Reports, 2017). This is particularly problematic due to the subpar health care opportunities in the Ivory Coast (Pacific Prime, Ivory Coast Medical Insurance). Since this crisis, child labor has plagued the Ivory Coast, and children are now working in a variety of industries such as agriculture, mining, vending, among others (Child Labor and Forced Labor Reports, 2017). Only approximately twenty-five percent of children get to graduate elementary school, often due to work/monetary obligations (Unicef, Ivory Coast, Education).

Even with the boom and bust process of growing cocoa from freshly felled forests, many Ivorians find it difficult to combat the falling market price for cocoa. In September, 2014, the price of cocoa beans per ton was estimated at \$3,371, but only two months later had dropped to \$2923 (Why Chocolate Prices are Set to Rise, 2014). Sure, premium chocolate can be rather expensive, but how much of the cost is going back to the roots of the industry, the impoverished farmers in Côte d'Ivoire trying to support their families? Chocolate as a finished product can often cost as much as fifty times the price of the raw beans used to produce it (Cocoa beans are most often exported raw, but exporting them after a primary treatment raises the selling price threefold, at the cost of increased production time and initial cost. In both situations the farmers and exporters are only making a miniscule fraction of their foreign business 'partners' earn) (Posthumus, 2018).

The most prominent issue for the betterment of nutrition in Côte d'Ivoire is the fact that many farmers simply cannot afford proper meals for their families. Most signature Ivorian meals are simple and cheap dishes of chicken or fish with vegetables and sauces, but the price is staked higher because many food products are shipped into Côte d'Ivoire (Youtube, Lifey, Preparetoserve.com, 2015). Five or six portions can be a struggle to supply with the cost of shipping included. While of course not all of these agriculturalists produce cocoa, an extremely large portion of them do. The lack of sufficient income for Ivorian farmers comes from either too few sales, or low of a price for sales (Posthumus, 2018). In summary, the costs of producing cocoa beans must be reduced, the quantity produced must increase, or the income per unit must increase for change to be made.

One option on the table for the Ivorian economy in whole is for investors to support businesses like Instant Chocolat, an Ivorian high quality chocolatier, run by local entrepreneur, Axel Emmanuel Gbaou. By using ingredients from the Ivory Coast, creating products in the Ivory Coast, and selling to customers within the Ivory Coast and the surrounding countries, more jobs, money, and products are kept in the local regions (Posthumus, 2018). This allows for families to have more sources of income, and to help the local economy circulate. This company was successful too, their notoriety and profits soaring in the recent years. Reporters from Babi Inside explain how his marketing strategies are targeting both tourists and citizens by heavily embracing Ivorian culture, including landmarks and local colloquialisms (Babi Inside, Axel Emmanuel the Ivorian Chocolatier, 2018). Stories like this would cause more investors, venture capital firms, and more small community hopefuls flock to production within Côte d'Ivoire. Another benefit is simply the opportunity for lower and middle class Ivorians to have chocolate. Recently a documentary on the lives of impoverished cocoa farmers gave a few Ivorians chocolate bars and recorded their reactions. No one expected such a sweet taste from this bean they work their lives away to mass produce (Posthumus, 2018).

In order to increase profits for exporters, and therefore the producers, higher prices could be demanded for cocoa exports to major chocolate producers such as Hershey and Mars. These companies have a demand to keep up, and would likely be willing to pay whatever they need to pay. Other countries can produce cocoa, but not nearly at the rate Côte d'Ivoire does (Mattyasovsky, 2018). Of course, this comes with obvious risks. To twist the chocolate industries arm would require a temporary decrease or pause in exports, which Côte d'Ivoire may not be able to afford. Both of these companies have taken initiative programs in order to source more of their cocoa from certified environmentally friendly and child labor free sources, which would increase costs (Ionova, 2018). However this does little to assist local farmers in earning income, and the plans these sugar behemoths have laid are very slow moving.

Chocolate companies increasing payments to cocoa shippers or perhaps sending direct profits to growers will increase farmers standard of living. In addition, this allows them to rely more on ecologically safe and morally agreeable methods of production. This in turn would allow chocolate companies like Hershey and Mars to advertise improved growing conditions and certifications from organizations like Fairtrade,

boosting sales and public opinion. Overall a mutually beneficial arrangement, should the initial increase in costs be taken.

Most cocoa farmers within the Ivory Coast do not use fertilizer of any sort besides occasionally the remains of trees that were previously planted in the given plot. This is largely due to the fact that many Ivorians simply cannot afford such an investment. Clearly fertilizer would increase yields if only the agriculturalists could find a source at a reduced or free price, such as utilizing a waste product. Well, conveniently, cocoa farming has one byproduct that is produced at a rate nearly nine to one to marketable cocoa beans: cocoa husks. Cocoa husks can be spread over crop plots, at no cost besides a few extra hours spent to spread the husks thoroughly, and have been shown to work well as a fertilizer. On average, cocoa husks used to enrich the soil increase revenue nearly twofold (Agbeniyi, Oluyole, Ogunlade).

The increase in profits from this fertilization could be the opportunity for these farmers to stop the slash-and-burn feedback loop created by the wars in Côte d'Ivoire. Leftover income can be put towards permaculture infrastructure, for example shading. Often cocoa is grown in full sun, which decreases the tree growth, plummeting long term production. However, with shading infrastructure, trees can support biodiverse ecosystems that nourish soil nutrient levels, paving a road toward permanent farms (Plos One, Rjab, Leuschner, Barus, Tjoa, Hertel). Halting deforestation from agriculture has its obvious benefits, but also would keep the nation's ecotourism alive. Ecotourism is a major factor in the Ivorian economy that benefits all citizens. Additionally, shade-grown cocoa systems often include other profitable trees such as plantains, which are also heavily embedded into Ivorian culinary culture (Youtube, Lifey, preparetoserve.com, 2015).

From the ashes of prolonged conflict, Côte d'Ivoire has an opportunity to bud into economic prosperity and stability, much like what they experienced two decades ago. With good choices, such as pulling the global economy to assist their cocoa empire, investing in new industries, or defaulting to the agricultural methods that have supported them for so long, soon this wave of poverty could pass. The country's GDP has already shown significant growth since the end of the war (Trading Economics, Ivory Coast GDP, 2018). With these advances, the average farmer will once again be assured of their next meal, and the country will return to its previous state of an economic, industrial, and touristic utopia.

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Côte d'Ivoire and Ghana have joined forces with the world's leading chocolate companies to protect forests, boost farmers' livelihoods and ensure cocoa is produced sustainably. Here's how. Cocoa, the main ingredient in our chocolate, has driven deforestation in West Africa. Image: REUTERS/Oswaldo Rivas. 05 Mar 2019. Richard Scobey President, World Cocoa Foundation. UpLink - Take Action for the SDGs. Take action on UpLink. Most Popular. English: Cocoa farmers in Côte d'Ivoire discovered the benefits of mineral fertilizer only around 1985 and of organic manure, especially chicken manure, some fifteen years later still. This article aims to explain why it took so long for mineral fertilizers and organic manure to be adopted and how they represent true innovations in a context of chaotic markets and deforestation. In 2015, the rise in cocoa prices is leading to an increase in the use of both forms of fertilization. The adoption of chicken manure for cocoa cultivation may well herald an irreversible ecological transition but it also represents a significant social innovation. Français: En Côte d'Ivoire, les planteurs de cacao découvrent l'engrais vers 1985 et la fiente de poulet vers 2000. Ivory Coast (Côte d'Ivoire) leads the world in production and export of the cocoa beans used in the manufacture of chocolate, as of 2012, supplying 38% of cocoa produced in the world. West Africa collectively supplies two thirds of the world's cocoa crop, with Ivory Coast leading production at 1.8 million tonnes as of 2017, and nearby Ghana, Nigeria, Cameroon and Togo producing additional 1.55 million tonnes. Ivory Coast overtook Ghana as the world's leading producer of cocoa beans in 1978, and today...