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Costa Rica, Infrastructure

Un Camino de Cambio (A Road of Change)

“‘Roads!’ Norman Borlaug announced as he pounded a fist onto the table, and after a pause, he added: ‘Roads are absolutely essential.’” A quote from the former United States Ambassador to Cambodia and recently retired President of the World Food Prize, Dr. Kenneth Quinn. This story took place while he was retelling the most pertinent aspects of his life story via a Zoom call. After reiterating the importance of Borlaug’s exact choice of words in that instance, Ambassador Quinn went on to explain how this singular interaction with Dr. Borlaug allowed him to solidify his own life’s work. After this interaction with Dr. Borlaug (The Father of the Green Revolution, The Man Who Saved a Billion Lives, and The Founder of the World Food Prize), Ambassador Quinn allowed his idol’s outlook to shape his purpose. He made it his sole intent to educate all people of the world in what had transformed his own: Revolutionary agricultural practices, furthered by the infrastructure required to support it. Living in an extremely globalized and increasingly interconnected world, it takes a stretch of the imagination to realize that there are still portions of the globe unreached by our twenty-first-century advancements. When such areas are brought to light, typically in developing nations, there’s a certain sympathy felt towards these areas, but that’s where it ends. Hardly ever is there any initiative taken towards solving these basic humanitarian issues. When people’s access to food is dependent upon dilapidated roads and unreliable infrastructure, it leads to food insecurities—something that is inexcusable in today’s day and age. One of these aforementioned areas is rural Costa Rica.

Traditionally, men have comprised a vast majority of the Costa Rican workforce, however, this trend has altered in more recent times as women’s access to education has become less and less of a roadblock. Due to this current shift, seen almost unilaterally in core and semi-periphery nations across the globe, the fertility rate has experienced a downturn, seen even in the span of one generation. Go back 25-40 years and one can see the sharp decline, from an average of three to four children per woman in the 1980s and 90s down to less than two currently (“World Bank Country Profile: Costa Rica”). Given that example, as well as many others, it has become quite noticeable that the trends of Costa Rica and its citizens closely trail that of the more developed world. Seemingly in a land of its own, the tendencies of the Costa Rican people occupy the span between the third and first worlds, having swayed significantly in the direction of the developed world in many notable aspects of recent times. The typical Costa Rican family structure appears very similar to that of most societies around the world, however, there are a few notable variations to this traditional layout, as “...many households are multigenerational – grandparents, parents and grandchildren comprise a common family unit...great-grandchildren, cousins, and other close family members may live together, as well.” (Van Velzer, 2015). Beyond this, most Costa Rican family values, parenting styles, social norms, and general ideologies closely align with that of the West. With literacy rates on the rise and life expectancies soaring, this has established Costa Rica as a prime example of how globalized ideas can positively impact the lives of millions.

Costa Rica, with a population of just over five million people and an area of 19,761 square miles, harbors a population density of an estimated 263 persons per square mile, which is relatively low by today’s standards, and only slightly above average for the region. Despite this, a vast majority of Costa Rican citizens live in urban areas rather than rural, currently at a ratio of roughly 81 to 19 – an ever-growing statistic, especially in recent years (“World Bank Country Profile: Costa Rica”). This has positively influenced the public’s access to food and greatly improved the food security of the country as a whole, however, diminishing the labor force required to grow it all the while. In a country the size of the state of West Virginia, it doesn’t take much to accomplish big things for the general population. A singular

example of such is the introduction, and more importantly, the successful implementation of, a full-coverage insurance program provided by the government. Offered at (according to current exchange rates) a price of roughly 150 United States dollars per month, this is a rate at which a large portion of the Costa Rican population is willing to pay (“World Bank Country Profile: Costa Rica”). This program, as well as many others similar in their wide-sweeping effects, have experienced wildfire success.

Lying between 8 and 12 degrees north of the equator, and containing nearly 5% of the Earth’s total species, Costa Rica is extremely biodiverse, allowing for the production of many foods deemed ‘exotic’ by Western standards. “Costa Rica has historically been a predominantly agricultural country, dedicated to traditional export crops such as coffee, sugar and bananas all of which are also important for domestic consumption. Other traditional crops include primarily grains, vegetables and fruit are for local consumption. Today, the agriculture sector employs 14% of the Costa Rican working force and makes up 6% of the country’s GDP.” (“Paragraph 2- Crop Trust Country Profile: Costa Rica”). Speaking with the Professor of Animal Science and Nutrition at Costa Rica’s EARTH University, Carlos Orozco Corrales, when posed the question, “What foods are most readily available to Costa Rica’s general public?” there was no hesitation in his answer: “Rice and beans,” as simple as that. A large portion of Costa Rican cuisine often revolves around the use of rice and beans (Monge-Rojas). Continuing, Corrales mentions many other staples of the Costa Rican diet, such as eggs, pineapples, oranges, as well as thousands of varieties of tropical fruits. He goes on to state that there’s very little in the way of maize or corn, as well as other traditional crops. “Latest trends in globalization have offered export opportunities for non-traditional products like pineapple, melon, foliage and ornamental crops among others. These latter crops now largely exceed the production of traditional crops.” (“Paragraph 3- Crop Trust Country Profile: Costa Rica”). It’s due to this influx of more unconventional crops that have permitted any growth, however slight, in Costa Rican infrastructure, particularly in the case of roads.

The challenge posed by Costa Rica is a unique one, and with unique challenges, come unique solutions. The Global Competitiveness Index has analyzed the roadways of every country across the globe, and in doing so it has ranked Costa Rica the fifteenth worst, only underdone by a slew of periphery nations in Africa (Sawe, 2018). The stark contrast between the rural and urban areas of the country accounts for this rating, as some areas inside the country are nearly unreachable, a factor that greatly influences the inhabitants of those areas’ access to sustainable food. This leads to one of two very broad solutions, that, though requiring the approval of the Costa Rican government in both cases, and large financial support from international multi-million dollar fruit companies in the latter, both satisfactorily fulfill the needs of the Costa Rican people.

Solution one goes as follows: Creating a government-run civil service program based on the same general principles as the Civilian Conservation Corps (or CCC) that was put into place in the United States during the Great Depression. Not only would this increase the rural population’s access to sustainable food, but it would also allow for much easier transportation of goods, thus furthering the country’s economy in the long run. In the aftermath of the COVID-19 pandemic and all its seemingly endless variants still wreaking havoc upon certain areas of the globe, unemployment has experienced a sharp uptick worldwide. The thousands of jobs generated by this project would stimulate Costa Rica’s economy, driven largely by tourism, one of the industries hardest hit by the pandemic. Each benefit of this idea seems to build upon itself, making it quite appealing to those in power. Passing a bill containing this or similar projects would ensure a bright future for those located in the rural areas of the country – those same people suffering the most from malnutrition and starvation.

It seems from this vantage point that there would be no downsides to an undertaking such as this, however, as stated by Professor Orozco Corrales, “It is sad for me to tell you this, but the issue [facing Costa Rica] is the corruption in the government... They are thinking for other people.” Visibly disheartened by his answer to this question, “We could be better.” Government money that is set aside to

be spent on infrastructure projects such as cell towers, improving access to water, strengthening the electric grid, and most importantly, improving the roads, is rather spent on the pleasures of the President and his cabinet. Despite this, historically speaking, Costa Rica has been and still is Central America's most stable democracy, as well as its oldest ("Paragraph 1- Costa Rica Government"), thus leaving room for hope in the people's view of their country's leadership, and in turn, hope in a solution like this.

Solution number two somewhat bypasses the central government in favor of a more reach-around type of solution. In another quote from Professor Coralles, "We are the leaders in the world for producing pineapple... They (the fruit companies) need good roads to bring those products from the farm to the consumer." If a partnership between the Costa Rican government and the fruit companies could be forged, then an infrastructure project of this magnitude would be a cakewalk. "When you don't have roads, it's a real problem," says Coralles, "It's much easier to have difficulties in the middle of the road," something the fruit companies can't afford. By pitching this idea to fruit companies, they would have the chance to improve their products, expand their reach, and increase production, thus increasing profits. Getting the government on board could provide incentives to these companies for participating in this enterprise. Already seeing small-scale effects of this in action, a handful of fruit companies have begun efforts to improve their transportation systems. Many roads across the rural regions of the country aren't wide enough to safely accommodate the refrigerated semi-trucks that bring products to the domestic markets. As mentioned prior, by incentivizing improvements upon public roadways, or at least issuing tax breaks for companies providing the funding for such pursuits, it would be with relative ease that the funds and means of action could be drawn together for this betterment of the general population's access to sustainable food sources. Lowering the cost of transportation and the number of damaged goods, increasing markets available and total products sold, as well as receiving a good public outlook all the while, there's no formidable downside to this prospect.

Regardless, similar infrastructure projects have been accomplished by Central American fruit companies in the past, particularly in the case of banana companies throughout the 1950s, the major players being Vaccaro Bros., Cuyamel Fruit Company, and United Fruit Company. In one example of this, the Honduran government offered land grants to Vaccaro Brothers in exchange for help improving their roadways, and when Honduras tumbled into a strangling national debt, the three fruit companies helped pick the economy back up, further improving the roads, shipping, and electric grid, and building entirely new telecommunication lines, railways, radio towers, and more, all of this being in each company's best interest (Eschner, 2017). The singular downfall of this is the simple concept of monopolies. Once the fruit companies accumulate wealth, power, and influence, they can call all the shots. During the period described above, multiple governments were ousted in favor of more agreeable leaders, revolutions and coups were commonplace, and behind it all were the fruit companies, protecting their own best interests. They controlled the people of the region by using their vast resources and limitless influence, which quickly turned into a crisis. As years went on, however, this and other similar crises began to unwind, leaving the residents of the areas in question with thousands of miles of newly paved roads, ensuring much easier transportation and shipment of goods and people, enhanced means of communication through new technologies, which allowed for certain ease in these citizens' lives, as well as improved infrastructure in these countries' ports, providing safer working conditions for those employed in the sector. It was these developments and refinements in infrastructure that laid the groundwork for many of these Central American countries to advance to the global stage in their agricultural exports.

Each of these potential solutions brings its unique set of challenges to the table, as no solution is without flaws. Despite this, they each provide a means by which to improve the lives of those who need it most: the hungry. By cementing food security and quite literally trailblazing for the following generations, humanity is fulfilling the aspirations set forth by Borlaug, Ruan, Quinn, and all the other great figures in agriculture. These noble leaders have left their mark not by what family they were born into or how much wealth they have accumulated, but rather by the lives they saved in solving the most basic of all issues

prevalent on this Earth. It's in the looping pursuit of answers and advancement that this global challenge can be assessed and solutions can be successfully executed. The problems solved by this generation will shape the Earth inherited by the ones that follow, and once their time comes hopefully they too can discover the sustainable solutions vital to establishing a global system of concrete food security. Saving the next one billion lives.

Works Cited:

Costa Rica Government. CostaRica.Org. (2019, August 1). Retrieved March 25, 2022, from <https://costarica.org/facts/government/>

Costa Rica. Visit Costa Rica. (2017, August 31). Retrieved March 25, 2022, from <https://www.visitcostarica.com/en/costa-rica>

Crop Trust Country Profile: Costa Rica. Crop Trust. (2021, October 28). Retrieved March 25, 2022, from <https://www.croptrust.org/country/costa-rica/>

Eschner, K. (2017, January 18). *Where we got the term "Banana republic"*. Smithsonian.com. Retrieved March 25, 2022, from <https://www.smithsonianmag.com/smart-news/where-we-got-term-banana-republic-180961813/>

Monge-Rojas, R. (2017, February 6). *Costa Rica*. Global Nutrition and Epidemiologic Transition Initiative. Retrieved March 25, 2022, from <https://www.hsph.harvard.edu/gnet/san-jose-costa-rica/#:~:text=Diet%3A,onions%2C%20garlic%2C%20and%20salt.>

Sawe, B. E. (2018, February 13). *Countries with the Worst Road Quality*. WorldAtlas. Retrieved March 25, 2022, from <https://www.worldatlas.com/articles/countries-with-the-worst-road-quality.html>

Van Velzer, R. (2015, June 21). *Family values*. Costa Rica. Retrieved March 25, 2022, from <https://www.costarica.com/culture/family-values/#:~:text=In%20general%2C%20Costa%20Rican%20families,home%20until%20they%20get%20married.>

World Bank Country Profile: Costa Rica. Data. (2018). Retrieved March 25, 2022, from <https://data.worldbank.org/country/costa-rica>