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Ensuring Stability in a Post Castro Cuba Through the Modernization of Agriculture

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**ENSURING STABILITY IN A POST CASTRO CUBA
THROUGH THE MODERIZATION OF AGRICULTURE**

**A thesis submitted to
Regis College
The Honors Program
in partial fulfillment of the requirements
for Graduation with Honors**

by

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INTRODUCTION

The United States has pursued a policy of social, political, and economic intervention in Cuba, beginning with the Cuban resistance to Spanish colonialism in the late 1800s. Cuba's vast sugar resources, combined with its history of colonization and proximity to the United States have exposed the country to direct and indirect control, which continues to this day. Without a reworking of relations between the United States and Cuba, and a loosening of the trade embargo, Cuba's agricultural sector will continue to suffer from a lack of productivity and a reliance on expensive food imports. It is in the best interests of both the United States and Cuba to modernize Cuban agriculture by increasing the use of modern equipment that would boost efficiency while at the same time preserve Cuba's sustainable farming methods. This modernization will in turn ensure a level of economic and political stability in a post-Castro government.

Throughout its history, the Cuban economy has been largely tied to one resource: sugar. This monoculture in the Cuban agricultural sector proved to be very profitable for a period of time in the twentieth century, but came at the cost of inhibiting the production of staple foods. This was not a problem while the US was importing vast amounts of sugar from Cuba, but as the imports slowed, economic

problems arose. In 1920, Cuban sugar exports totaled \$1,022,300,000, but fell to \$45,256,000 by 1933 as a result of this decrease in US imports.¹

When Fidel Castro took power following the revolution in 1959, the US cut off all economic ties with Cuba. The lack of trade between Cuba and the US forced the Cuban government to rely on the Union of Soviet Socialist Republics (USSR) for the majority of its imports. The Cuban government traded highly subsidized sugar crops for oil and machinery. With the weakening and eventual fall of the USSR in the late eighties and early nineties, Cuba experienced severe economic isolation that has left them with an agricultural infrastructure that has not been updated since the sixties. As a result, Cuba has placed a heavy emphasis on organic food production and urban gardening, which now supplies the island with enough produce to sustain the population. Despite this, the Cuban government *still* relies heavily on expensive food imports to provide the Cuban people with staple foods.²

Aside from the positive gains Castro made in the fields education and healthcare, namely near universal literacy and one of the most highly regarded free healthcare programs in the world, the Cuban government is suffering from a severe lack of capital to invest in modernizing the island nation's agricultural infrastructure. Despite the success of urban gardens and organic farms, the Cuban agricultural sector is lagging behind the rest of the world in terms of efficiency and

¹ Fulgencio Batista, *The Growth and Decline of the Cuban Republic*, trans Blas M. Rocafort (New York: The Devin-Adair Company, 1964): 4

² Though the urban gardens and organic farms provide a majority of the fruits and vegetables that the Cuban people consume, they must still import other staple foods such as grains.

diversity. In order to ensure the economic and political stability of the region in a post-Castro Cuba, the US needs to begin working with the Cuban government to modernize infrastructure and increase capital. It is in the best interest of the US to work towards this goal not only for the possibility of profiting off agricultural trade with Cuba, but also to prevent a mass immigration of Cubans seeking political asylum in the US when the Castro regime ends.

Should a major political transition take place in Cuba, the expensive food imports the Cuban people rely on for subsistence could come to a halt. Thus, the main focus of US policy towards Cuba needs to be on working with the Cuban government to rebuild its agricultural sector, which would subsequently reduce its dependence on food imports, while simultaneously preserving the progressive and sustainable farming methods currently employed on the island. This will create a more stable environment for a transition government and prevent widespread food shortages in the process. This task would be accomplished by the US exporting food to Cuba as a temporary solution until Cuban farmers are able to fully implement the Collective Model, which will provide the essential transitional step into a more privatized economy.³

Such a change in foreign policy for the US would present unique problems and would require large-scale and comprehensive solutions. In order to understand the social context surrounding Cuba's current situation, it is necessary to understand the history leading up to the Cuban revolution.

³ This model will be explained in later chapters.

1. POLITICAL AND HISTORICAL CONTEXTS

Throughout its history, Cuba has been subjected to various instances of political and economic control due to its profitable sugar resources, beginning with Spain's colonization of the island. After freeing themselves from Spanish control with the help of the US, the Cuban people came under the grip of the controversial Platt Amendment that gave the US government sweeping control over their country. Following a political revolution, the Platt Amendment was repealed in 1934 and the country enjoyed true political sovereignty for the first time in its history. As the Cuban government became more corrupt under the leadership of Fulgencio Batista, a new revolution began to take shape.

The nationalistic platform for the Cuban revolution of 1959 based its foundation on the popular support of Fidel Castro and general anti-Batista sentiment in Cuba during the 1950s. The United States played a major role in putting Fulgencio Batista in power, which would later backfire as Cubans grew tired of his leadership and looked to Castro for a fresh start. Analyzing the revolution from the perspective of power relationships allows the role of the US in Cuban politics to become very clear. Fidel Castro changed a longstanding power relationship between the US and Cuba, which eventually led to the severing of diplomatic ties between the two nations that exists to this day.

Spanish Colonization and the War of Independence

Diego Velázquez created the first Spanish settlement in Cuba in 1511 because the Spanish government realized that there were vast natural resources on the island, which was at the time populated entirely by indigenous peoples.⁴ As the Spanish settlements grew in number, production of tobacco and the trade of slaves began to increase.⁵ These slaves were used to work in the fields as well as in the mills of the newly created sugar industry. In 1791, major slave revolts took place in a French colony, Hispaniola (what is now Haiti). This revolt severely impacted the Haitian sugar industry, which allowed Cuba to become the leading sugar producer in that region.⁶ Spain recognized how much money could be made from the sugar trade, so they began increasing the number of slaves they imported in the early 1800s.⁷

By 1808, most countries, including the US, had banned the slave trade. Despite international pressure to follow suit, Spain decided to set the date of 1820 as the end of the slave trade.⁸ At the same time, the US began investing heavily in Cuba, building railroads and infrastructure so that Cuba would continue supplying the nation with sugar.⁹ Despite the positive advancements in terms of technology,

⁴ Clifford Staten, *The History of Cuba* (Westport, CT: Greenwood Press, 2003): 14

⁵ Staten, 16

⁶ Emily Hatchwell and Simon Calder, *In Focus: Cuba* (New York: Monthly Review Press, 1995): 9

⁷ Staten, 21

⁸ Staten, 21

⁹ Staten, 23

Cuba was still locked into a slave driven economy; by the 1820s, major slave revolts began to erupt.¹⁰ It was not until 1886 that slavery in Cuba was completely abolished, just after the Ten Years War.¹¹

The Ten Years War began in 1868 as a class struggle. Cuba had three major social classes at the time: the *peninsulares* were residents of Cuba born in Spain and represented the highest social class, the *criollos* were Spanish-descended individuals born in Cuba which made up the middle class, and the lowest class was made up of blacks and slaves.¹² This social stratification would eventually lead to a call for revolution and change as the citizens revolted against the antiquated system.

On 10 October 1868, Carlos Manuel de Céspedes freed his slaves and began the revolution against the Spanish government.¹³ This struggle for independence would last ten years, and would be a military failure, but an ideological success. The Ten Years War planted the seeds of revolution in the Cuba people who would again rise up against their Spanish colonizers, this time with more success. The next major revolutionary effort began in 1895 by José Martí.

José Martí was the founder of the Cuban Revolutionary Party (PRC) and the mastermind of the Cuban War of Independence, which began on 24 February 1895.¹⁴ Martí would later become a major influence on Fidel Castro as he made plans for the Cuban revolution of the 1950s. The Cuban War of Independence was

¹⁰ Staten, 25

¹¹ Hatchwell, 10

¹² Hatchwell, 9

¹³ Hatchwell, 10

¹⁴ Hatchwell, 10

nearing an end in 1898 as the Spanish army was growing weaker by the day, and the Cuban revolutionary forces were pushing them back farther. It was at this point that the US government saw an opportunity to intervene and further secure its position as a dominant political and economic force in Cuba.

In 1898, the US government began sending military forces to Cuba in order to prepare for the exile of the Spanish government from the island. On 15 February 1898, the *USS Maine* (an American battleship) exploded in Havana harbor, killing most of the people on board.¹⁵ Following the explosion, an investigation was launched and it was officially concluded that Spain was responsible for the incident.¹⁶ Today the cause of the explosion on the *USS Maine* is still being debated, but at that time the incident provided the impetus for the Spanish-American War, which lasted a very short time, and marked the beginning of Cuba's independence from Spain. On 10 December 1898, the Treaty of Paris was signed, which transferred Spain's control of Cuba to the US.¹⁷ A brief period of US military occupation followed until the eventual formation of an independent Cuban state and the establishment of the Cuban Constitution in 1902.

¹⁵ Louis A. Perez, *The War of 1898*, (Chapel Hill, NC: The University of North Carolina Press, 1998): 58

¹⁶ Perez, 67 – there is still a lot of speculation about the actual cause of the explosion on the *USS Maine*. One of the most probable explanations is that it was caused by a fire in one of the ship's boilers.

¹⁷ Hatchwell, 11

The Platt Amendment

After helping Cuba gain independence from Spain, the US government drafted a series of conditions in 1901 that would be incorporated as amendments in the 1902 Cuban Constitution. These conditions, known collectively as the Platt Amendment, established provisions for US political control in Cuba, and remained in place until 1934. The Platt Amendment was met with considerable resistance from the Cuban people, nevertheless it was signed into the constitution.

The first article of the Amendment prohibited Cuba from entering into treaties that could threaten its freedom, and set forth the condition that no foreign power could have a military base on the island. Interestingly, Article Seven allows the US to set up military bases - "...the government of Cuba will sell or lease to the United States lands necessary for coaling or naval stations at certain specified points to be agreed upon with the President of the United States."¹⁸ The US government used Article Seven to set up the military base at Guantanamo Bay, which is still in operation today.

Article Four of the Platt Amendment established the legality of the US occupation in Cuba following the removal of Spanish colonial forces from the island, but the most controversial portion of the Platt Amendment was contained in Article Three:

¹⁸ The full text of the Platt Amendment can be found in the "Modern History Sourcebook: The Platt Amendment, 1901" provided by Fordham University at <http://www.fordham.edu/halsall/mod/1901platt.html>.

“III. That the government of Cuba consents that the United States may exercise the right to intervene for the preservation of Cuban independence, the maintenance of a government adequate for the protection of life, property, and individual liberty, and for discharging the obligations with respect to Cuba imposed by the Treaty of Paris on the United States, now to be assumed and undertaken by the government of Cuba.”¹⁹

By placing this amendment in the Cuban constitution, the US guaranteed that they would have full and unadulterated control over the Cuban government. At a time when the Cuban people believed their independence from Spain meant sovereignty, the US was essentially reestablishing the same type of control that Spain had over Cuba prior to 1902. As the US continued to dominate Cuban political affairs under the authority of the Platt Amendment, and the Cuban economy through their sugar imports, Cuban politics were rife with corruption and favoritism before the revolution in 1934 that ended the tyranny of the Platt Amendment.

A Period of Government Corruption

Despite US military forces leaving Cuba, the US government, wanting to protect its private sugar interests on the island, largely controlled the Cuban government.²⁰ Following its freedom from Spain, Cuba entered a period of relative democracy in which elections were held; the 1902 constitution laid the framework

¹⁹ From “The Platt Amendment, 1901” in the Modern History Sourcebook

²⁰ Later chapters will discuss the vast power the US had over Cuban agriculture, controlling a majority of its sugar industry.

for democracy, but the Platt Amendment kept that ideal from being fully realized. Cuba would soon see another revolution brewing.

In 1928, Gerardo Machado took the office of President for his second term, despite fraudulent elections. Upon Machado taking office, the students of Cuba began to organize in the background in response to the corruption.²¹ There was severe political infighting at the time, which would eventually force Machado to resign, at the insistence of US diplomats. During the next election period, Ramón Grau San Martín was appointed the provisional president. His left-leaning and nationalistic platform pleased the students, but not necessarily the US.²² As Grau San Martín was making waves with the popularity of his pro-labor message, the US was looking for a new leader in Cuba that would align with their interests; they found that leader in Fulgencio Batista.

Fulgencio Batista began his career in the Cuban military, quickly rising through the ranks; he played the role of behind-the-scenes political puppet-master as well as cruel dictator. During the political unrest of the 1930s, his military leadership allowed him to influence the government and the political decision-making process in Cuba. The United States became closely involved in Cuban affairs during the 1930s due to a vested interest in Cuba's sugar production, and they saw Batista as a stable and influential force in the region. In 1933, the US government

²¹ Staten, 46; Cuban students were, and still are, a strong political force in Cuba, having been at the forefront of the various revolutions throughout the nation's history.

²² Staten, 46

sent Sumner Welles to Cuba as a diplomatic ambassador. His job was to help mediate the intergovernmental conflicts that had been arising during the Machado government in order to maintain some semblance of stability.²³ Following the forced resignation of Machado, Welles worked with the army to appoint Carlos Manuel de Céspedes, son of the leader in the Ten Years War, to the presidency.²⁴

With the Cuban people already growing weary of the political infighting and corruption, the year 1933 represented a major turning point in Cuba's tumultuous political scene; Batista was illegitimately promoted to army colonel and Dr. Ramón Grau San Martín was appointed as the provisional president.²⁵ Grau began a large reformist campaign that included new nationalist labor policies, which upset the US government who would not recognize his leadership.²⁶ Towards the end of the Grau presidency in 1934, the US sent Jefferson Caffery to succeed Welles as ambassador, and the new US policy was to support Colonel Batista, who the government saw as a stabilizing force that would work with them.²⁷ This relationship between Batista and the US served both parties in that the US would have a powerful figure in Cuba who could further their agenda and protect their financial interests, namely their investments in the sugar industry, while Batista had the political security of being backed by one of the most powerful nations in the world.

²³ *Cuba: a Country Study*, ed. Rex A. Hudson (Washington, DC: Federal Research Division: Library of Congress, 2002): 42

²⁴ *Cuba: a Country Study*, 43

²⁵ *Cuba: a Country Study*, 46

²⁶ *Cuba: a Country Study*, 47-48

²⁷ *Cuba: a Country Study*, 48-49; part of Roosevelt's "Good Neighbor Policy," this decision would eventually backfire on the US as Batista became more corrupt.

With US support, Batista used his influence in Cuban politics to secure Colonel Mendieta's appointment to the presidency in 1934, which also marked the repeal of the Platt Amendment.²⁸ During the 1936 election, the United States played an even more direct role with diplomats Sumner Welles and Jefferson Caffery conspiring with Batista to appoint Miguel Gómez to the presidency under the guise of a democratic election.²⁹ Throughout the thirties, Cuba was a republic with elected officials, but corruption and political favoritism were rife, largely due to Batista's involvement.

In a nod towards the progressive student movement, following the repeal of the Platt Amendment in 1934, a new Cuban Constitution was drafted in 1940. This constitution provided many basic rights such as equal rights for women, basic social programs, and a minimum wage.³⁰ Due to its progressive nature, this new constitution was received well by the Cuban people, and would play a major role in the revolution of the 1950s.

The Batista Legacy

In his memoir, *The Growth and Decline of the Cuban Republic*, Batista describes how he had retired from politics for a period in the forties, only to be re-

²⁸ Richard Gott, *Cuba A New History* (New Haven, CT: Yale University Press, 2004): 141

²⁹ Frank Argote-Freyre, *Fulgencio Batista: From Revolutionary to Strongman* (London: Rutgers University Press, 2006): 198

³⁰ Staten, 65

elected by popular demand to the Cuban senate without campaigning in 1948.³¹ At this point in time, political tensions in Cuba were high, fueled by the economic instability created by the US sugar quotas; popular support for a revolution was building. Batista describes how his choice to lead a coup against the Cuban President Prío, was in part due to Prío's "...plan to plunge Cuba into civil war..." and Batista's popular support.³² Prío was not enjoying the support of the Cuban people, and Batista saw this as the perfect time to reenter the Cuban political scene, this time assuming the role of political dictator. On 10 March 1952, Batista marched on Camp Columbia and took over the government peacefully.³³ Batista recounts in his book how despite the fact that the takeover was peaceful, the communists tried to "...portray me as a bloodthirsty tyrant" even though "...Fidel Castro committed four murders before he reached the age of 25..."³⁴ Though the new Batista government may have been initially less threatening than the Prío regime, the same old game of Cuban politics was being played.³⁵ Batista's new government was responsible for removing the Cuban constitution, getting rid of the congress, and murdering opposition leaders.³⁶

Batista's reign was also known for his close ties to the United States through diplomats such as Wells, and blatant dealings with the mafia, often subsidizing their

³¹ Batista, 23-24

³² Batista, 34

³³ Batista, 35

³⁴ Batista, 36

³⁵ Gott, 146

³⁶ Hatchwell, 13

illegal dealings.³⁷ The Havana Mob, as it came to be known, was largely made up of gangsters such as Charles Luciano, Meyer Lansky, Santo Trafficante, and others.³⁸ These mobsters found a welcoming environment in Cuba, especially with the Batista government who is said to have used the military and police forces to keep the entire operation running smoothly.³⁹ While Batista was enjoying the spoils of his mafia relationships, an anti-government sentiment was again brewing amongst the young student population of Cuba, which would eventually lead to the rise of Fidel Castro and the overthrow of Batista in 1959. The revolutionaries were tired of the political corruption and wanted a change.

The Cuban Revolution

Fidel Castro began his political career as a student of law at the University of Havana, where many of the previous student uprisings had originated. Fidel Castro's credibility as a possibly successful revolutionary leader began after his involvement with attack on the Moncada fortress that took place on 26 July 1953.⁴⁰ The mission itself was not successful, but Batista's order to execute captured prisoners swayed public opinion against his regime.⁴¹ Castro was placed on trial for his involvement in leading the revolution. During his trial, Castro outlined his five revolutionary laws

³⁷ Reese Erlich, Dateline Havana: *The Real Story of US Policy and the Future of Cuba* (Sausalito, CA: PoliPointPress, 2009): 20

³⁸ T. J. English, *Havana Nocturne: How the Mob Owned Cuba... And Then Lost it to the Revolution* (New York: HarperCollins, 2008): xv

³⁹ English, xvii

⁴⁰ Gott, 147

⁴¹ Gott, 150

in a speech, which would become central to the revolution once Batista was overthrown.

In his speech, Castro described how the old constitution needed to be reinstated and power put back in the hands of the people. He also outlined what would become his agrarian reform movement and the nationalization of companies by promising that workers would share in the profits. He explained how sugar farmers, the backbone of Cuba's economy, would receive part of their profits, and the final step was that Castro promised to take property from corrupt members of the previous governments and give that money back to the people through various public investments. Castro also promised education reform, and help with unemployment. Despite his articulate speech, which became known as "History Will Absolve Me" after the final words he spoke, Castro was eventually sentenced to fifteen years in prison along with his brother Raúl, who played a major role in the Moncada offensive.⁴²

Castro was released from prison in 1955 under an act of amnesty, and soon traveled to Mexico. Once in Mexico, Castro began forming the 26th of July Movement, a guerilla organization whose name comes from the date of the attack on Moncada.⁴³ Castro, aided by Ernesto "Che" Guevara, returned to Cuba with his revolutionaries and began to plan the overthrow of the Batista government in accordance with the points he made in his speech. Castro began by garnering the support of peasant

⁴² Gott, 150-151

⁴³ *Cuba* ed. Martha Hostetter (New York: The H.W. Wilson Company, 2001): 1

farmers and slowly advancing his rebel forces into the cities of Cuba. Despite being outnumbered, the rebels were able to defeat Batista's army, whose solidarity had been slowly disintegrating. On 1 January 1959, Batista fled to the Dominican Republic and the Cuban army surrendered soon after that.⁴⁴ These events marked a success for Fidel Castro and his revolutionaries, and the beginning of his reign in Cuba.

⁴⁴ Hatchwell, 14

2. FIDEL CASTRO'S COMMUNISM

Fidel Castro's revolution was intended to free the Cuban people from the dictatorship of Batista and reinstate the protections of the 1940 Cuban Constitution. Part of the reason that the revolutionaries were so successful in their overthrow of the Batista government was that they had the popular support of the Cuban people; because of this, Castro had to ensure that he fulfilled all of the promises he made in his "History Will Absolve Me" speech.

On 2 January 1959, Fidel Castro gave a passionate speech in Santiago de Cuba outlining the steps forward following the revolutionary success. Castro promised that the Cuban army would not be punished for their involvement with Batista, and that all freedoms and rights would be restored including those of the press and trade unions.⁴⁵ He also promised that the sugarcane would be taken care of and that Cuba's infrastructure was in the process of being rebuilt.⁴⁶ In a separate speech, given on 8 January 1959 at Camp Columbia, Havana, Castro stated, "What [the revolution] is interested in is the people."⁴⁷ Following his victory, Castro did make good on his promises to the Cuban people.

⁴⁵ *Fidel Castro Reader*, 125

⁴⁶ *Cuban Revolution Reader* ed. David Deutschmann and Deborah Shnookal (New York: Ocean Press, 2007): 126

⁴⁷ *Fidel Castro Reader*, 136

Four major changes were made to the economy of Cuba after Castro took power that were consistent with his five revolutionary laws: agrarian reform, the nationalization of US companies, a campaign to eradicate illiteracy, and nationalized healthcare. "Prior to the Agrarian Reform Law, 1.5 percent of the landowners possessed more than 46 percent of the arable land in Cuba."⁴⁸ A large portion of this land was owned by US holdings, who essentially controlled the Cuban sugar operations during the Batista regime. The Agrarian Reform Law redistributed the land from foreign holdings, estimated at 75 percent of Cuba's arable land, to cooperatives with compensation to those holdings based on the assessed tax value for that land; this upset these foreign holdings who had been grossly underpaying taxes for years.⁴⁹ The second major reformation to Cuba's economy came in the form of the nationalization of US companies. This major policy breakthrough put control of US owned companies into the hands of the Cuban government. This was largely a response to trade restrictions that the US had placed on Cuba, hoping to cripple Castro's revolution.⁵⁰

In addition to the economic changes that the Cuban Revolution brought, Castro implemented two monumental social programs that are still in effect today: a campaign to eradicate illiteracy and nationalized healthcare. In response to a high illiteracy rate on the island and the lack of educators, Castro ordered large numbers of individuals to be trained as teachers and sent to the rural areas to educate the

⁴⁸ *Cuban Revolution Reader*, 55

⁴⁹ Erlich, 21

⁵⁰ *Cuban Revolution Reader*, 73

Cuban people. This program was highly successful, and was followed by the nationalization of healthcare on the island. Castro's free medical program has given the Cuban people free access to a world-class medical system with top-tier physicians. This program is responsible for an increased life expectancy among the Cuban population as well as decreased infant mortality rates. It is important to understand the economic and social changes Castro implemented before beginning a discussion of the agricultural reforms.

Nationalization of US Companies

Following Castro's rise to power, the US government undertook many measures to prevent the successful functioning of his revolutionary regime. One of these measures was to severely limit the US importation of Cuban sugar, which was still Cuba's main source of income. In response to the US efforts to squeeze Cuba's economy, Castro turned to the Soviet Union for trade. In exchange for oil, steel, and other goods, Cuba would supply the Soviet Union with sugar. This plan worked, but angered the US who quickly shut off imports of Cuban sugar altogether.⁵¹ Castro's response was the nationalization of US companies, which would forever affect US-Cuban relations.

On 6 August 1960, the Cuban government passed a law giving the government the power to forcefully expropriate and nationalize companies owned

⁵¹ *Cuban Revolution Reader*, 72-73

by the US. The law itself cites the economic measures the US was employing against the Cuban government,

“Whereas the attitude of constant aggression that the government and legislative power of the United States of North America have assumed for political purposes against the fundamental interests of the Cuban economy, by means of which the present of that country was granted exceptional powers to reduce Cuban sugar’s access to the US sugar market as a weapon of political action against Cuba...”⁵²

With the passage of this law, the Cuban government was given sweeping powers to take over US companies, many of which included sugar plantations. Castro’s aim was to show the US government that the Cuban people could survive, independent of their neighbors to the North.

Campaign to Eradicate Illiteracy

Along with the economic reforms, one of the major projects Castro promised to undertake was a campaign to make literacy in Cuba universal. Prior to the Campaign to Eradicate Illiteracy in 1961, nearly 40 percent of the Cuban population was illiterate. Castro’s revolutionary government employed a raft of student teachers to bring literacy into the traditionally uneducated countryside. The campaign took a year, and was overwhelmingly successful.⁵³ According to the Central Intelligence Agency’s World Factbook, currently 99.8 percent of the Cuban

⁵² *Cuban Revolution Reader*, 74

⁵³ Gott, 188-189

population is literate, while only 99 percent of the US population is literate.⁵⁴ The manifest function of this campaign was to educate Cuba's people, but a latent function was to put a friendly face on Castro's revolutionary efforts.⁵⁵

National Healthcare

Aside from education, one of the major focal points for Castro's new revolutionary government was healthcare. The Cuban Constitution considers healthcare a basic human right and makes it the responsibility of the government to provide healthcare for its citizens.⁵⁶ In 1950, the average life expectancy for Cubans was 58 years, but that number has increased to 77 years in 2009. In addition to higher life expectancies, Cuba is ranked number two in the world for lowest infant mortality rate, while the US is ranked number three.⁵⁷ All of this has been accomplished in spite of the trade restrictions placed on Cuba. In the 1990s, stricter embargo legislation prevented certain prescription medications and pieces of medical equipment from reaching Cuba because these products were made by US, or US affiliated companies.⁵⁸

⁵⁴ CIA World Factbook <<https://www.cia.gov/library/publications/the-world-factbook/>> accessed Oct 5, 2010

⁵⁵ Gott, 189

⁵⁶ Demetrius S. Iatridis, "Cuba's Health Care Policy: Prevention and Active Community Participation," *Social Work*, January (1990): 30

⁵⁷ Laurie Garrett, "Castrocare in Crisis," *Foreign Affairs* 89, no. 4 (2010): 1-2

⁵⁸ Richard Garfield and Sarah Santana, "The Impact of the Economic Crisis and the US Embargo on Health in Cuba," *American Journal of Public Health* 87, no. 1 (1997): 15-20

One of the factors that allowed for such great progress in Cuba's healthcare system is the government's initiative to train doctors. Soon after the revolution, there were only 9.2 doctors per 10,000 people, yet that number has increased to 59 per 10,000 people today because of these initiatives.⁵⁹ Despite this, there is a fear that a change in US policy could cause a mass emigration of Cuban doctors who are in search of higher pay.⁶⁰ In 2006, the US enacted a policy that allowed Cuban doctors to defect and come to the US, but the program has not been widely utilized.⁶¹ The language barrier and differences in the way Cuban doctors have been trained makes it difficult for them to gain licensure in the US.

The Agricultural Sector

In the long term, one of the least successful reform movements of Castro's revolution was agrarian reform. In his "History Will Absolve Me" speech, Castro alluded to the reform movement in his second revolutionary law that outlined the reappropriation of land to small farmers.⁶² Cuba's historical reliance on sugar combined with Castro's decision to ally his government with the USSR would eventually cause the Cuban agricultural sector to fall apart and create a serious reliance on imported food. The following chapters will outline the high and low points in the history of Cuban agriculture in order to illustrate the problems the

⁵⁹ Garrett, 4

⁶⁰ Garrett, 7-8

⁶¹ Garrett, 8

⁶² *Fidel Castro Reader*, 67

Cuban government faces and offer suggestions as to how the Cuban government can work to remedy the problems that they are facing.

3. PRE-REVOLUTION AGRICULTURE

For most of its history, Cuba has relied on sugar exports to fuel the nation's economy. Following its liberation from Spanish colonial rule in 1898, foreign investment in Cuban agriculture increased, leading to an increased dependence on sugar as the primary cash export. In addition to the lack of diversity in Cuba's farms, land ownership was becoming much more concentrated in the hands of a few. Preferential tariff rates also contributed to the US being the dominant importer of Cuban sugar.⁶³ All of this dependence on the US began to create an unstable system of agriculture in Cuba. The Cuban government would take action with the passage of the Law of Sugar Coordination of 1937 and the Agricultural and Industrial Development Bank, but these efforts would eventually prove futile as the Cuban agricultural sector faced a crisis following the revolution of 1959.

Cuban Sugar and Foreign Land Ownership

Cuba's agricultural sector began to be dominated by sugar production in the mid-nineteenth century, under the rule of Spanish colonialism.⁶⁴ The sugar crop was easily produced on the island, and the worldwide demand for its consumption

⁶³ José Alvarez, "Cuban Agriculture Before 1959: The Political and Economic Situations FE479," *Department of Food and Resource Economics, Florida Cooperative Extension, University of Florida*, (Gainesville, FL: University of Florida, 2004), accessed November 6, 2010, <http://edis.ifas.ufl.edu>

⁶⁴ Alvarez FE479

garnered profitable prices on the international market. As the US worked with Cuba to throw off the bonds of Spanish control in 1898, Cuba faced a new challenge: the US-imposed Platt Amendment that allowed the US government to intervene in nearly all Cuban affairs. With the Cuban economy in a vulnerable state following its freedom from Spain, US investors began to buy land in Cuba and increase the number of sugar operations.⁶⁵ By the late 1930s, the US-owned sugar mills produced 56 percent of the sugar on the island, Spain's mills produced 17 percent, and other foreign owned mills produced 7 percent. This left Cuban-owned mills with a less than 20 percent share in the sugar production market of their own country.⁶⁶ The prominence of sugar production on the island led to a decrease in the amount of land that was being used to farm other crops, which increased Cuba's need to import food from other nations.⁶⁷

Despite its reliance on varying US consumption levels, Cuban sugar exports were profitable. According to Alvarez, the value of Cuban exports vastly exceeded the value of imports in the 1950s.⁶⁸ Due to the profitability of this sugar industry, the Cuban government gave it preferential treatment, which led to a severe lack of diversity in crops and other economic activity. Cuba's reliance on sugar as its primary export forced the government to import expensive food staples from other

⁶⁵ Alvarez FE479

⁶⁶ Hugh Thomas, *Cuba, or, The Pursuit of Freedom* (New York, Da Capo Press, 1998): 708

⁶⁷ Lydia Zepeda, "Cuban Agriculture: A Green and Red Revolution." *Choices*, 4th Quarter (2003): 1

⁶⁸ Alvarez FE479

countries to make up for the lack of domestic food production. Another consequence of this reliance on sugar was the seasonal employment of farm laborers; between growing cycles for sugarcane, there was a seven-month period in which farmers were left unemployed.⁶⁹

In its initial stages, this sugar-centric arrangement did not pose an economic problem because of the preferential treatment the US was giving Cuban sugar imports. Unfortunately, high levels of US investment in Cuban agriculture began to decline over time. According to Alvarez, US investment shares in Cuban agriculture declined from 67 percent in 1929 to 26.5 percent in 1958.⁷⁰ In addition to the decline of US investment in Cuban agriculture, sugar import quotas were set up in the US that limited the amount of Cuban sugar that the US would purchase in the 1930s. The new quotas would reserve 29 percent of the US sugar market for Cuba. Due to the new laws, Cuba exported almost two million tons less to the US than it had in 1929. It is clear that this decline severely affected the Cuban economy, and would eventually lead to disastrous consequences when Fidel Castro took over the Cuban government in 1959.

The Law of Sugar Coordination of 1937

In response to various inequalities between the government, the sugar mills, and the sugar workers, the Cuban government passed the Law of Sugar Coordination of 1937. This law established a number of precedents that gave

⁶⁹ Oppenheim, 218

⁷⁰ Alvarez FE479

protection to small, independent sugar producers as well as the large sugar mills. It encouraged deals between labor unions and sugar mills, established a minimum wage for workers, and created penalties for mills that did not cooperate with the new law.⁷¹ Perhaps one of the most progressive objectives established by this legislation was the underwriting of land leases by the government. Thus, a small, independent sugar producer was guaranteed a right to the land he was leasing as long as he continued to produce sugar on it.⁷² This law was monumental in establishing protections for these small producers who were being particularly hurt by the decreasing US imports.

Agricultural and Industrial Development Bank

The Agricultural and Industrial Development Bank (BANFAIC) was instrumental in providing capital to Cuban farmers. It was established in 1950, and dispersed credit to the agricultural sector that needed it for, "...planting, growing, and harvesting; purchases of livestock for all purposes; chemical products and other inputs; storage; and transport of products."⁷³ It also created a number of Rural Credit Associations that dispersed loans to farmers for infrastructure investment and expanding their operations.⁷⁴ The Bank proved to be a valuable resource,

⁷¹ José Alvarez, "Cuban Agriculture Before 1959: The Social Situation FE480," *Department of Food and Resource Economics, Florida Cooperative Extension, University of Florida*, (Gainesville, FL: University of Florida, 2004), accessed November 6, 2010, <http://edis.ifas.ufl.edu>

⁷² Thomas, 708

⁷³ Alvarez FE480

⁷⁴ Alvarez FE480

helping Cuban industrial production increase 3.4 percent between 1955 and 1958.⁷⁵
Much of this would prove to be inconsequential following the Cuban revolution of 1959.

⁷⁵ Thomas, 1165

4. AGRICULTURE DURING CASTRO REGIME

Following the gradual decrease of US investments in the Cuban agricultural sector, and the newly imposed sugar quotas, the Cuban economy was beginning to suffer. As Fidel Castro took control of the Cuban government in 1959, he began an agrarian reform movement that involved a government takeover of land on the island. Foreign holdings, mainly from the US, owned much of this land. Following this move by Castro, the US began to pursue an embargo against Cuba, cutting off trade with the island nation that at one time had completely relied on the US for economic stability.

This embargo forced Castro to look for a new trading partner, which he found in the USSR. In an agreement between the two nations, the USSR would supply Cuba with oil and machinery in exchange for sugar. This trade agreement worked well until the decline and eventual fall of the USSR in the late 1980s. At this point Cuba was an isolated nation with no one to import its sugar, and no way to modernize its agricultural sector. The USSR had been Cuba's main supplier of farming equipment, fertilizers, and oil; therefore Cuba experienced a severe food crisis and began to again rely heavily on food imports to supplement the lack of domestic food production.

In response to this crisis, Cuba began to experiment with organic farming methods and urban gardening. These experiments proved to be highly effective at

offsetting the food crisis of the 1990s, but they were not efficient enough to provide an adequate amount of food for the island nation. Beginning in the early 2000s, the Castro government began making it easier for farmers to use fertile land in Cuba to grow crops, but the lack of modern infrastructure and farm equipment has severely hindered the Cuban farmers' ability to farm economically. As the Cuban government looks for ways to decrease its reliance on food imports, the need to modernize its agricultural sector becomes even more essential.

The Agrarian Reform Movement

Immediately following his ascension to power in Cuba, Fidel Castro began one of the most far-reaching agrarian reform movements in history. The goal of this movement was to reclaim Cuba's land from foreign ownership and split the massive farm holdings into smaller, government owned plots in accordance with the revolutionary laws. The reform was met with resistance by the foreign landowners and was an impetus for the US enacting harsher trade resections.

Castro began by implementing the first Agrarian Reform Law on 17 May 1959. This law nationalized all farms that were larger than 402 hectares. According to Peter Gey, by 1961 the government of Cuba owned 49 percent of the land, while 51 percent was privately owned.⁷⁶ Under this government scheme, the National Institute for Agrarian Reform (INRA) was created to oversee the new co-operatives.

⁷⁶ Peter Gey, "Cuba: a unique variant of Soviet-type agriculture," *Communist Agriculture: Farming in the Far East and Cuba* ed. Karl Eugen-Wadekin (New York: Routledge, 1990), 91

The INRA controlled all aspects of the agricultural sector by determining what would be produced, providing the funding and supplies, and selling the products after harvest.⁷⁷

Closely following the first law, the Castro government implemented a second agrarian reform law on 3 October 1963 that reduced the maximum allowable size for privately owned land from 402 hectares to 67 hectares.⁷⁸ This move significantly increased the amount of land that became controlled by the government. The Castro regime had a system in place to reimburse these land owners for the reappropriation, but it was based on the value those owners declared on taxes, which tended to be exponentially lower than what the land was truly worth.⁷⁹ This upset the landowners, many of whom were from the US.

The US government has supported agrarian reform movements in other countries such as Japan, yet they were opposed to Castro's movement, claiming that it would damage the Cuban economy and prevent private investment.⁸⁰ Cuba was an important topic during the US National Security Council meeting in January 1960; the Council decided that Castro's government was not aligned with US interests in the region, and that a plan should be drafted to support an anti-Castro movement

⁷⁷ Gey, 91

⁷⁸ Gey, 91

⁷⁹ Gott, 180

⁸⁰ Gott, 180

that would spawn a “...government favourable to US interests.”⁸¹ In 1961, the US government passed the Trade Embargo Act, which cut off all imports from Cuba.⁸²

It has been argued by anti-Castro groups, and the US businesses whose land had been reappropriated, that the agrarian reform was unlawful and constituted what was essentially theft. In the context of Cuban law and the larger context of Latin American law, Castro’s agrarian reform movement was not illegal. In the Cuban constitution from 1940, which was reinstated as a result of Castro’s revolution, Article 24 explicitly prohibits confiscation of property, but allows for expropriation of property for public use, provided the landowner is compensated.⁸³ Castro’s agrarian reform movement was consistent with this provision, as the former owners of the expropriated lands were compensated, albeit not necessarily to their satisfaction.

Executive Order 3447

The US government had been implementing various trade restrictions on Cuba immediately following Castro’s rise to power, and US-Cuban relations were only getting worse. On 3 February 1962, President Kennedy signed Executive Order 3447, which established a full economic embargo against the island of Cuba, and essentially severed diplomatic ties.⁸⁴ “[This order will] Hereby prohibit... the

⁸¹ Gott, 180

⁸² Oppenheim, 218 (Farber 2006) (Gott 2004) (Batista 1964) (Kapcia 2008)

⁸³ Steven E. Hendrix, “Cuban Expropriation Legislation in the Latin American Context,” *Development Policy Review* 16, (1998): 192

⁸⁴ Luis, 135

importation into the United States of all goods of Cuban origin and all goods exported from or through Cuba.” The act also prohibited US exports from entering Cuba, “... to continue to carry out the prohibition of all exports from the United States to Cuba...”⁸⁵ Prior to this executive order being signed, the US had been limiting trade with Cuba in an attempt to stifle the country’s economy and bring an end to the communist regime. Fidel Castro had other ideas, and the embargo did not lead to Cuba’s downfall.

Cuba and the Union of Soviet Socialist Republics

In response to the strict embargo legislation that prevented products from the US being imported into Cuba, the Castro government looked to the Soviets for economic relief. Castro chose to join the Council for Mutual Economic Assistance (COMECON), which was an economic alliance between Soviet bloc countries.⁸⁶ Just as the Cuban economy had been closely tied to US demand for sugar prior to the revolution, Cuba was again becoming reliant on another nation’s economy for its own survival. In a deal between the two nations, the USSR agreed to trade their oil below market value for Cuban sugar bought above market value. In 1986, the Soviets were buying sugar for 51 cents per pound, while the international market price was only 6 cents per pound.⁸⁷ State run farms, which made up 75 percent of

⁸⁵ <http://archives.gov/federal-register/codification/proclamations/03447.html>

⁸⁶ Oppenheim, 218

⁸⁷ “Cuba’s Agriculture: Collapse & Economic Reform,” *Agricultural Outlook; Economic Research Service/ USDA* October (1998): 26

Cuba's agricultural land, quickly focused their production on sugar in response.⁸⁸

The Castro regime did not have the foresight to realize that shifting agricultural production away from staple foods and onto sugar production could have disastrous consequences should something happen to their trade relationship with the Soviets.

The oil that the Cubans were receiving from the Soviets helped power their tractors to keep producing sugar. Before 1959, Cuba imported a majority of its tractors from the US, but following the Cuban revolution, tractor imports ceased and it became nearly impossible for farmers to find US parts. In response to this, Cuba began importing tractors and machinery from the USSR at a rate of 5,700 implements in 1967 alone.⁸⁹ In addition to the oil and machinery that the Soviets were providing, the Cubans were receiving various agricultural chemicals such as fertilizers.⁹⁰ During its relationship with the USSR, Cuba continued to model a communist agricultural system with huge state-owned and operated farms. It has been estimated that the Soviet assistance to Cuba made up as much as 25 percent of Cuba's national income at some points in time.⁹¹

Cuba enjoyed relative economic security for a period of time until the full collapse of the USSR in 1991, at which time the dangers of Cuba's dependence on the Soviet trade deals became harshly apparent. Without the Soviet's subsidized oil imports, the Cuban economy began to collapse. In the short time following the

⁸⁸ Oppenheim, 218

⁸⁹ "A Survey of Agriculture in Cuba," *US Department of Agriculture, Economic Research Division* June (1969), 11

⁹⁰ Zepeda, 1

⁹¹ "Cuba's Agriculture: Collapse & Economic Reform," 26

Soviets' downfall, Cuba's foreign trade decreased 75 percent and their output decreased 50 percent.⁹² There were other effects as well: oil imports decreased by 50 percent, farm chemical availability by 70 percent, and imports overall fell 50 percent.⁹³

The agricultural sector was being particularly hard hit. Having tied up all of their resources in sugar production, the Cuban government found themselves in a difficult situation, having no oil to run their tractors, and no one to buy their sugar. The effects were wide reaching; production from the agricultural sector decreased by 54 percent in 1994, and the daily caloric intake of Cubans fell from 2,908 in the 1980s to 1,863 in 1993.⁹⁴ As a severe food crisis was developing in Cuba, the US government passed the 1992 Cuban Democracy Act and the 1996 Cuban Liberty and Democracy Solidarity Act, both of which placed restrictions on ships that traded with Cuba, and discouraged foreign companies and countries from doing business with the island nation.⁹⁵ In response to the crisis, the Cuban government established a "Special Period in Peacetime" program that was designed to make radical changes to the system of Cuban agriculture in the 1990s.⁹⁶

Special Period in Peacetime

⁹² "Cuba's Agriculture: Collapse & Economic Reform," 26

⁹³ Zepeda, 2

⁹⁴ "Cuba's Agriculture: Collapse & Economic Reform," 26

⁹⁵ "Cuba's Agriculture: Collapse & Economic Reform," 26

⁹⁶ "Cuba's Agriculture: Collapse & Economic Reform," 27

The “Special Period in Peacetime” was announced in 1990 and with it came a strict set of rations on food and other consumable goods. The program also placed a focus on increasing domestic food production and crop diversification to offset the impending food crisis.⁹⁷ By 1993, the Cuban government recognized the inefficiencies of the traditionally large, state-run farms, and designed new co-ops called the Basic Unit of Cooperative Production (UBPC).

This new system divided up the large farms into smaller plots and allowed individual farmers to lease the land, though the state was the final titleholder, with the promise that they would meet a certain production quota. The farmers were also allowed to sell whatever product they had leftover after meeting the quota.⁹⁸ According to Zepeda, there were five major principles that this special period focused on: technology, land reform, fair prices, local production, and training.⁹⁹ First, the Cuban government wanted to focus on improving farming techniques and technology in response to the lack of machinery. This meant placing a large emphasis on training agricultural researchers and specialists. Second, the UBPC created the rent-free farm plots which allowed anyone to become a farmer. Third, farmers were allowed to sell excess product for profit. Fourth, an emphasis was placed on urban gardens so that transportation costs could be avoided. Finally,

⁹⁷ “Cuba’s Agriculture: Collapse & Economic Reform,” 27

⁹⁸ “Cuba’s Agriculture: Collapse & Economic Reform,” 27

⁹⁹ Zepeda, 2

there was attention paid to training people to be productive farmers and giving them the skills necessary to farm organically.¹⁰⁰

This system was highly effective in diversifying Cuba's farmland and allowing a career as a farmer to be an economically viable pursuit. At this point Cuba was making progress in fighting the food shortage, but they still lacked access to oil and spare parts for their tractors, which prevented them from using modern, mechanized farm equipment. Without this equipment, and the fertilizers that the Soviets had been providing, the Cubans looked towards organic farming methods and urban gardens as ways to move forward and feed the people.

Organic Farming and Urban Gardening

The Cuban organic farming revolution was a direct result of necessity. The Cuban government needed a way to feed the people without access to traditional farm equipment, so they reoriented their focus on farming without chemicals and tractors. As a result, Cuban farmers began using pack animals to work the fields. These animals were available, and using them for farm work is much more sustainable than a system that relies on diesel machinery. The government has set up facilities to train animals and farmers to work together; to prevent a short supply of these animals, the government has implemented a strict moratorium on cattle

¹⁰⁰ Zepeda, 2

slaughter without approval. A consequence of this is an abnormally low supply of beef and very high prices for what is actually available.¹⁰¹

To supplement the organic farms in rural areas of Cuba, the government began to incentivize urban gardening as a way to grow produce locally. The government supplies land for development and trains individuals to cultivate these urban gardens. They have also created a number of distribution centers where urban gardeners can buy supplies such as natural fertilizers and pesticides.¹⁰² Between 1994 and 2000, the output of urban gardens has increased from 0 metric tons to 600,000 metric tons.¹⁰³

Although the urban gardens and organic farms have made significant progress in alleviating the food crisis in Cuba by increasing daily caloric intakes to normal levels, the country is still heavily dependent on food imports. Today the island nation still imports 84 percent of its food.¹⁰⁴ The Cuban government sees this as an unnecessary expense, and they have begun programs to increase land use for farming. Despite their efforts, fewer people are taking advantage of the programs because of the vast amount of bureaucratic red tape that must be overcome in order to obtain rights to farm the land.¹⁰⁵

¹⁰¹ Zepeda, 3

¹⁰² Jason Mark, "Growing it Alone: Urban Organic Agriculture on the Island of Cuba," *Earth Island Journal* Spring (2007), 34

¹⁰³ Zepeda, 3

¹⁰⁴ Fred Bahnson, "Organic by Necessity," *Christian Century* September (2010), 11

¹⁰⁵ An excellent resource for learning more about Cuba's sustainable systems and the Special Period in Peacetime is the film "The Power of Community: How Cuba Survived Peak Oil" released in 2006 and directed by Faith Morgan.

Farming in Cuba Today

“There's an old joke in Cuba that if education, health care and athletics are the Cuban revolution's greatest achievements, then its three biggest failings are breakfast, lunch and dinner.”¹⁰⁶ Realizing the potential of the massive plots of fallow, government owned land, the Castro regime has begun leasing more land to individuals with the promise that the land will be farmed and the government will be given one-third of the harvest. Farmers are then allowed to sell the rest for their own profit under this new program.¹⁰⁷ Despite a positive reception amongst the Cuban public, the plan has yet to have a tangible effect on the domestic food shortage. According to Nick Miroff of National Public Radio, this situation is due to the red tape that farmers must wade through in order to receive farm equipment from the government.¹⁰⁸ Until Cuba has a more efficient and diverse agricultural sector, imports will still play a large role in feeding the population.

The majority of foods that Cuba imports are grains and other staples. The urban gardens and organic farms are able to produce sufficient amounts of fruits and vegetables to meet the island's demand. One exception to the restricted trade with Cuba has been written into the vast array of US embargo legislation that allows for food to be exported from the US to Cuba. According to the BBC, from years 2000

¹⁰⁶ Nick Miroff, “Reform on the Range: Cubans Heed the Call To Farm,” *National Public Radio*, September 21, 2010, accessed October 26, 2010, <http://www.npr.org/templates/story/story.php?storyId=129757511>.

¹⁰⁷ Miroff

¹⁰⁸ Miroff

to 2004, nearly \$430 million of food has been exported to Cuba from the US.¹⁰⁹ In 2008 alone, Cuba imported \$2.4 billion worth of food from other countries.¹¹⁰ This arrangement has been beneficial for the Cuban people and profitable for US companies, but the strict embargo legislation has prevented the program from getting any larger. If the US were to work with Cuba and relax certain trade restrictions, Cuba would be able to import staple foods cheaper; it would also open up the door for a modernization of Cuban agricultural infrastructure by allowing for the importation of modern farm equipment, which would lead to an increase in the quality of life for the Cuban people.

¹⁰⁹ "Cuba signs \$13m in US food deals," *BBC News*, April 14, 2004, accessed October 26, 2010, <http://news.bbc.co.uk/2/hi/business/3624899.stm>.

¹¹⁰ Michael Voss, "Seeds of change in Cuban farming," *BBC News*, September 30, 2009, accessed October 26, 2010, <http://news.bbc.co.uk/2/hi/americas/8280441.stm>.

5. A PLAN FOR THE FUTURE

As the Cuban people continue to rely on expensive food imports to fulfill their dietary intake, it becomes crucial that a plan is developed to reduce this dependence and create a stable agricultural sector for this island nation. Upon the inevitable termination of Fidel Castro's regime, the possibility for substantial political and economic turmoil exists; a stable agricultural sector would permit the Cuban government to continue providing food to the people, thus averting a food crisis similar to that of the early nineties.

It is imperative that the first step in any plan created for Cuban agriculture includes a loosening of the trade restrictions imposed by the US government. Before any large-scale agricultural reforms can take place in Cuba, the Cuban government must reduce its import expenditures; the importation of US food would be a temporary solution, yet one that would solve the impending dangers of a food crisis such as that the country experienced in the early 1990s. In addition to increasing the amount of food the US exports to Cuba, allowing the Cuban government to import modern farm implements from the US would assist the Cuban people in modernizing their infrastructure and eventually reducing their overall dependence on imports expensive or otherwise.

All plans for assisting Cuba will be stifled unless the US changes its stance on the Castro government by realizing that stabilizing Cuba now will be in their best

interest once Castro is out of power. All plans must also be sensitive to the Cuban welfare state, as the Cuban people are not prepared for the immediate implementation of a privatized, capitalist system of agriculture, nor have they been sympathetic to a high level of foreign investment.¹¹¹ It will be the goal of this final chapter to outline a piecemeal plan for the eventual stabilization of the Cuban agricultural sector. All suggestions made herein assume that the US government would be willing to work with Cuba and that political unrest in Cuba does not occur prematurely.¹¹²

A Post-Castro World: Why We Should Care

On 24 February 2008, Reuters reported that Raúl Castro was named the successor to Fidel Castro after having taken over power of the Cuban government temporarily in 2006 following his older brother's health problems. Raúl Castro, now 79 years old, has discussed the need to modernize Cuba and potentially repair relationships with the US, though little has changed since he took power. Given the age of both Raúl and Fidel Castro, it is clear that their role as leaders of the Cuban government cannot be sustained much longer. It is unclear what direction the Cuban

¹¹¹ José Alvarez, "Privatization of State-Owned Agricultural Enterprises in Post-Transition Cuba," *Problems of Post-Communism* November/December (2006), 34

¹¹² Whether or not the US will be willing to work with Cuba is a contentious subject. The administration of President Barack Obama has made small steps towards normalizing relations with Cuba though the loosening of travel restrictions and a call for a review of Cuba policy. Despite these advances, it is impossible to say whether or not this will in fact lead to a full normalization of relations any time soon, thus the above assumption must be made.

government will take following the termination of the Castro regime, as the possibilities are endless.

Irving Horowitz points out the privileged position of the Cuban armed forces, and how a military leadership situation is a highly possible transition scenario in a post-Castro Cuba.¹¹³ Two other Cuba scholars, Edward Gonzalez and Kevin McCarthy, have developed a more detailed timeline of what a post-Castro transition scenario will look like. In their model, Raúl Castro will be able to remain in power as long as a living Fidel Castro, who is seen as the face of the Cuban revolution, backs him. Gonzalez and McCarthy predict that upon the death of Fidel Castro, Raúl's regime will have a very short period of time (12 months) to show the Cuban people that he is able to drastically improve their quality of life, thus legitimizing himself as the leader. In order to do this, Raúl will have to adopt a system of government similar to that seen in China in which the government exerts authoritarian political control alongside a pseudo-free market economy. Gonzalez and McCarthy point out how the adoption of such a system could anger political leaders loyal to Fidel's socialist system, and eventually lead to either intergovernmental conflict or direct conflict with the Cuban people.¹¹⁴

There is a common theme in the post-Castro transition literature, and that is an acceptance of the idea that a democratic system is the best outcome for the

¹¹³ Irving Louis Horowitz, "Transition Scenarios for a Post-Castro Cuba: Military Outcomes or Civil Prospects?," *Human Rights Review* December (2004), 33

¹¹⁴ Edward Gonzalez and Kevin McCarthy, "Cuba's Uncertain Future after Fidel," *The Brown Journal of World Affairs*, Fall/Winter (2007), 36-37

Cuban people. Despite the myriad possibilities that exist for a post-Castro government in Cuba, and the various means by which those possibilities can be realized, the only certainty is that steps can and must be undertaken to ensure some semblance of economic stability for the island prior to the termination of the Castro regime. The island of Cuba is ninety miles south of Florida, therefore the US should have a vested interest in Cuba's political stability as it relates to US national security and economics.

From a short-term economic perspective, the US could profit greatly from the export of agricultural products. US farms who export food to Cuba would be able to reap the financial benefits of having a trading partner so close, while at the same time the Cuban people could begin seeing real savings by not having to import expensive food from other countries. The US has a very efficient agricultural sector, and being that Cuba is less than 100 miles south of Florida, transportation costs would be minimized and therefore the overall cost of the food lower. In addition to the benefit that awaits US farms, the US manufacturing sector could see a boost through the exportation of farm implements to Cuba. The island is in desperate need of modern farming equipment, and US companies have the capacity to supply the needed goods. In the long term, sustained and stable trade with Cuba is sure to have economic benefits for US interests; a stable Cuban government would be a more hospitable place for US investment, which would benefit both the US and Cuba. Stability could lead to increased profits from tourism on the island, as well as profits

for US travel companies who could begin advertising Cuba as a desirable vacation destination.

In addition to the economic incentive for ensuring stability in a post-Castro Cuba, there also exists the possibility of stopping mass emigration from Cuba following a governmental transition. During the early years of the 1959 revolution, 215,000 Cubans came to the US seeking political asylum from the Castro government.¹¹⁵ It is unlikely that the US would welcome these political immigrants given the current xenophobic rhetoric and anti-immigration laws being signed across the country. In addition, given the current poor economic climate, a mass emigration of impoverished Cuban people into South Florida or other parts of the US would likely put a strain on the already struggling employment market.

With the inevitable changing of the political system in Cuba, whether it be outright democracy or a derivative of socialism similar to that implemented in China, there will be economic instability as government owned entities are split up and markets are introduced. Such post-Castro instability will be exacerbated by the current instability that exists in Cuba. By strengthening the Cuban agricultural sector and planting the seeds of modernization and self-reliance, negative effects of a political transition can be mitigated. Not only will US companies profit from the increased trade that would follow a partial lifting of the embargo, the US could also

¹¹⁵ This number comes from <http://www.usimmigrationsupport.org/cubanimmigration.html> and is based on Census data.

prevent an influx of immigrants seeking political asylum. This strengthening will be accomplished through an implementation of The Collective Model.

US Imports: Food and Machinery

As stated in earlier sections, following the collapse of the USSR, and the subsequent Cuban food crisis, the Cuban government has been relying on expensive food imports to make up for the staple foods their farms are unable to produce. Despite the success of their urban gardens, the country is still trying to catch up to the rest of the world in terms of modernizing their agricultural sector. Before any modernization can take place, Cubans must reduce the amount of money they are spending on food imports and find a way to farm more efficiently.

The importation of staple foods from the US would allow the Cuban government to focus more of their financial resources on modernizing infrastructure rather than providing for its citizens. It must be noted that the importation of food from the US is only a temporary solution to the much bigger problem facing Cuban agriculture, which is its extreme inefficiency. One solution for providing Cubans with cheaper food would be for Cuba and the US to enter into a trade agreement in which Cuba would purchase mechanical farm implements from the US in exchange for preferred prices on food. Not only would this be a profitable solution for US manufacturing companies, it would also put Cuba one step closer to achieving agricultural modernization.

Preserving Sustainable Farming Methods

One of the major agricultural advancements in Cuba, which was a product of the food crisis of the early 1990s, is the island nation's reliance on organic farming techniques. With the collapse of the USSR, Cuba could no longer import chemical fertilizers and oil from their communist-bloc trading partners; the government quickly realized that they had to find new ways to grow crops without diesel farm implements or chemicals, thus they developed what has become one of the most sustainable and sophisticated organic agricultural systems in the world.

Instead of using modern machinery, the Cuban people rely on pack animals to plow fields. This method has reduced Cuba's reliance on expensive oil, as well as significantly reduced pollution caused by burning fuel, but such positive gains also comes with a significant setback, namely a lack of efficiency. Despite the sustainability of using pack animals, it is clear that this method is hardly efficient (again, as evidence by Cuba's dependence on imports). Thus, a compromise must be made in which Cuba could begin using mechanical farm implements imported from the US while still preserving other aspects of their organic farming techniques such as the use of organic fertilizers and pesticides. Such a compromise is the *only* way that Cuba could begin modernizing their infrastructure and move towards a self-sufficient agricultural sector while preserving its commitment to sustainable farming methods.

Despite the need to use mechanical farm implements to increase efficiency, there is no reason that the Cuban farmers could not continue to use the same organic fertilizers and pesticides they have been using, only on a larger scale. These compounds are much easier on the environment, and Cuban farmers have already become experts on their use.¹¹⁶ Any plans for the modernization of Cuban agriculture need to be highly sensitive to the positive environmental impact these farming techniques have, and *must* include a way to keep such a system in operation.

Another benefit of Cuba's early adoption of organic farming methods is that they have become leaders in this field, and could thus share their knowledge on this topic with other nations, including the US. Just as Cuban doctors are sought out for their expertise around the world, so too could Cuban farmers become a valuable "export" for the island nation. Cuba was prematurely aware of the delicate nature of our environment and the finite nature of oil, so as other countries' agricultural sectors come to the same realization, they too may begin to look into organic farming methods at which time Cuba could provide an excellent model.

¹¹⁶ The specifics and technical aspects of Cuban organic farming techniques are outside of the scope of this work, but readers interested in learning more about these methods should begin by reading the following article: Jason Mark, "Growing it Alone: Urban Organic Agriculture on the Island of Cuba," *Earth Island Journal* Spring (2007)

The Collective Model

Since coming into power, Raúl Castro has made great strides in incentivizing private farms that allow growers to sell their products at a local market while keeping their profits, though the Cuban farmers have yet to jump on the opportunity.¹¹⁷ One of the most probable explanations for this is the engrained nature of communal living that was central to Castro's revolution. The Cuban people have become accustomed to government ownership of farms beginning with the agricultural reforms of the 1960s. Thus, the Cuban people have not been functioning in a free-market system that promotes private enterprise and ownership. It would be foolish to believe that the Cuban people could make a direct transition from socialism to capitalism in one step; there needs to be an intermediary point at which privatization is slowly introduced into the agricultural sector. Such an introduction would be accomplished with The Collective Model whose framework shall be explained below.¹¹⁸ This framework necessarily assumes that the Cuban government would support a plan to create co-operative farms, which would be owned by groups of individuals rather than the government. Such a plan is not contradictory to Raúl Castro's current incentivization of small, private farms.

¹¹⁷ Miroff

¹¹⁸ The framework for The Collective Model is just that, a framework. It must be understood that it is up to the Cuban people to implement The Model in such a way that it will malleable and can be made congruent to their needs and values, thus the reason that vague generalities must be made in expanding upon this framework.

We must begin by explaining how the Collective Model works in relation to the plans previously laid out to increase the use of mechanical implements in Cuba. In this model, the Cuban government would begin by purchasing and importing mechanical farm implements, most likely from the US. Once these implements have been purchased, the Cuban government would provide low or zero interest financing to groups of farmers wishing to use these implements. Assuming that the Cuban government upholds the limit of 67 hectares of land per individual farmer, it would make sense for farmers in adjacent areas to band together and form a collective to purchase these implements from the government and share them. 67 hectares per farmer is not so much land that each would require their own implement.

It must be understood that due to the socialist system that has been a prominent feature of Cuban culture for over five decades, few Cubans would have the capital to finance the implements from the government, thus the need to band together in collectives. Therefore, the Cuban government could require that the collective “give” a portion of its harvest to the government each season until a sufficient amount has been “given” so that the loan could be considered repaid. During the time in which the collectives are repaying the loan, they should be able to sell the excess product for profit; in the same way, once the implement is paid for by the collective, the farmers should be able to sell all of what they produce on the market for a profit. The Cuban agricultural sector would realize a very large increase

in efficiency and production with the use of modern implements, which would go a long way in eventually reducing the country's reliance on short-term food imports.

Not only is the Collective Model directly complimentary to Raúl Castro's call for a privatization of farms, it is also congruent with the fact that a move towards privatization must be undertaken in steps rather than an all-at-once approach. This model provides the perfect step towards a capitalist economy as well as an excellent plan for modernizing and stabilizing Cuba's agricultural sector. Despite the positive aspects of this plan, the shortcomings must also be recognized. This plan has no way to provision for an eventual full-transition to capitalism, assuming such a transition will ever take place. Problems that might eventually arise include how a removal of the 67-hectare limit would affect the collective model and individual farmers, or how the collectives could buy out individual farmers who were part of the initial purchase of the implement.

Given the Cuban government's quick response to the food crisis of the early 1990s and the farmer's reluctance to adopt a fully-privatized farming system, there is no reason that such a collective system would not work for them. Importing mechanical farm implements would solve the immediate problem of reducing food imports, while the Collective Model would provide a perfect solution to the Cuban people's inability to produce enough capital to purchase the implements by themselves. The Cuban government would also benefit from this arrangement, as their food supply would be secured at reasonable prices as long as the collectives are repaying the loan with their harvests.

6. CONCLUSION

The history of Cuba has been plagued by colonization, an agricultural monoculture, and a series of political revolutions, but the most economically and politically important revolution of the country's history was Fidel Castro's revolution of 1959. With his ascent to power came a complete reworking of the Cuban way of life. Cuba's agrarian reform movement in particular had a lasting effect on the Cuban people by breaking up the large, privately owned farms into smaller, size-limited units that were owned mostly by the government. At the same time, Castro's government completely severed economic and political ties with the US; despite this, Cuba was very successful due to their close ties with the USSR and other Soviet-bloc nations.

Cuba was able to import highly subsidized oil and chemicals in exchange for sugar, but this relationship only lasted as long as COMECON. With the fall of the USSR in the early 1990s, Cuba found itself completely isolated without oil and without chemical fertilizers and pesticides. As a response, the Cuban government called for a Special Period in Peacetime. The government quickly began importing expensive food staples to make up for lack of agricultural production on the island. In addition to the imports, the government placed a heavy emphasis on the development of sustainable and organic farming methods as well as urban gardens. The urban gardens were able to provide a large portion of the Cuban people's fruit

and vegetable diet, but the organic farms have not been efficient enough to allow the Cuban government to decrease or eliminate staple food imports, which means that the Cuban agricultural sector is far from stable.

The problem with this instability arises when it is realized that the Castro regime is in its twilight. It is uncertain whether or not Fidel's more progressive brother, Raúl, will be able to continue the Castro legacy at his old age, or if there is another leader who will step up. Ignoring all of the various transition scenarios that scholars have dreamed up, one fact remains true: it is essential to modernize and stabilize the Cuban agricultural sector in order to ensure economic and political stability in a post-Castro Cuba.

In order to ensure this stability, the US needs to begin working with the Cuban government by lifting part of the embargo to provide cheaper staple food imports as a temporary solution while the Cuban agricultural sector undergoes more reforms. With the money saved by importing cheaper food from the US, the Cuban government can spend money purchasing mechanical farm implements that would be financed to a group of farmers based on the Collective Method. These farmers, who would obviously lack the initial capital to purchase the implements from the government themselves, could "give" portions of their harvest to the Cuban government as a form of repayment for the loan. Once the loan is repaid, the Cuban collectives would be able to sell all of their harvest on the market for a profit, while at the same time utilizing the advanced and sustainable organic farming methods that the Cuban people have developed.

Not only would the use of mechanical farm implements on the island increase agricultural efficiency to a level that would allow for a marked decrease in staple food importation, it would also allow for a gradual transition to a private ownership type of economic system that Raúl Castro has been trying to create in Cuba. In order for this plan to be successful, the US government must realize that it is in their best interest, both economically and politically, to support such a plan. The US would profit from food and machinery exports, while also ensuring that a mass exodus from Cuba does not occur following the eventual termination of the Castro regime.

One of the obvious problems with this plan is the fact that historically, the US has shown its willingness to completely co-opt the Cuban economy both overtly with legislation such as the Platt Amendment and covertly through supporting dictators aligned with US interests. Should this plan go through as described, it would be up to the Cuban people and the newly formed Cuban government to ensure that US involvement does not become too large in their country. With Cuba's historical reliance on sugar as their primary cash export, this placed their economy in a vulnerable position and made it easy for the US and USSR to intervene. With this plan and the Collective Model would come agricultural diversity and in turn economic stability that should, in theory, prevent the vulnerabilities that forced Cuba to rely on other countries for survival.

This plan has been made broad enough for the Cuban people to implement it in a way that is suitable to their needs and sensitive to their culture, yet it is also specific enough to provide a good framework to ensure a stability that would benefit

all parties involved. It is unclear how long the Castro regime will continue to remain in power, or what events will transpire in a transition scenario. The one thing that is certain is the fact that a modernized and efficient agricultural system will go a long way in ensuring both political and economic stability in a nation that is sure to undergo a major regime change in the near future.

BIBLIOGRAPHY

- US Central Intelligence Agency. *CIA World Factbook*. Sep 29, 2010.
<https://www.cia.gov/library/publications/the-world-factbook/geos/cu.html>
(accessed Oct 5, 2010).
- US Department of Agriculture. "A Survey Of Agriculture in Cuba." June 1969.
- USDA/Economic Research Service. "Cuba's Agriculture: Collapse & Economic Reform." *Agricultural Outlook*, October 1998: 26-30.
- Zepeda, Lydia. "Cuban Agriculture: A Green and Red Revolution." *Choices*, 4th Quarter 2003: 1-4.
- Voss, Michael. "Seeds of Change in Cuban Farming." *BBC News*. September 30, 2009.
<http://news.bbc.co.uk/2/hi/americas/8280441.stm> (accessed October 26, 2010).
- Alvarez, José. "Cuban Agriculture Before 1959: The Social Situation FE480." *Department of Food and Resource Economics*. Florida Cooperative Extension: University of Florida. 2004. <http://edis.ifas.ufl.edu> (accessed November 6, 2010).

- . "Cuban Agriculture Before 1959: The Political and Economic Situations FE479." *Department of Food and Resource Economics*. Florida Cooperative Extension: University of Florida. 2004. <http://edis.ifas.ufl.edu> (accessed November 6, 2010).
- Alvarez, José. "Privatization of State-Owned Agricultural Enterprises in Post-Transition Cuba." *Problems of Post-Communism*, November/December 2006: 30-45.
- Argote-Freyre, Frank. *Fulgencio Batista: From Revolutionary to Strongman*. New Brunswick, NJ: Rutgers University Press, 2006.
- Bahnsen, Fred. "Organic by Necessity." *Christian Century*, September 2010: 11-13.
- Batista, Fulgencio. *The Growth and Decline of the Cuban Republic*. Translated by Blas M Rocafort. New York: The Devin-Adair Company, 1964.
- "Cuba Signs \$13m in US Food Deals." *BBC News*. April 14, 2004. <http://news.bbc.co.uk/2/hi/business/3624899.stm> (accessed October 26, 2010).
- English, T J. *Havana Nocturne: How the Mob Owned Cuba... and then Lost it to the Revolution*. New York: HarperCollins, 2008.
- Erlich, Reese. *Dateline Havana: The Real Story of U.S. Policy and the Future of Cuba*. Sausalito, CA: PoliPointPress, 2009.
- Deutschmann, David, and Deborah Shnookal, . *Fidel Castro Reader*. New York: Ocean Press, 2007.
- Farber, Samuel. *The Origins of the Cuban Revolution: Reconsidered*. North Carolina: University of North Carolina Press, 2006.
- Garfield, Richard, and Sarah Santana. "The Impact of the Economic Crisis and the US Embargo on Health in Cuba." *American Journal of Public Health* 87, no. 1 (1997): 15-20.
- Garrett, Laurie. "Castrocare in Crisis: Will Lifting the Embargo Make Things Worse?" *Foreign Affairs* 89, no. 4 (2010): 61-73.
- Gey, Peter. "Cuba: a Unique Variant of Soviet-Type Agriculture." In *Communist Agriculture: Farming in the Far East and Cuba*, edited by Karl-Eugen Wadekin, 90-106. New York: Routledge, 1990.

- Gonzalez, Edward, and Kevin McCarthy. "Cuba's Uncertain Future after Fidel." *The Brown Journal of World Affairs* 14, no. 1 (2007): 27-39.
- Gott, Richard. *Cuba: A New History*. New Haven: Yale University Press, 2004.
- Iatridis, Demetrius S. "Cuba's Health Care Policy: Prevention and Active Community Participation." *Social Work*, 1990: 29-35.
- Hatchwell, Emily, and Simon Calder. *In Focus: Cuba*. New York: Monthly Review Press, 1995.
- Hendrix, Steven E. "Cuban Expropriation Legislation in the Latin American Context." *Development Policy Review*, no. 16 (1998): 189-196.
- Hostetter, Martha, ed. *Cuba*. Vol. 73. New York: The H.W. Wilson Company, 2001.
- Horowitz, Irving Louis. "Transition Scenarios for a Post-Castro Cuba: Military Outcomes or Civil Prospects?" *Human Rights Review*, December 2004: 27-34.
- Kapcia, Antoni. *Cuba in Revolution: A History Since the Fifties*. London: Reaktion Books, 2008.
- Luis, Julio García, ed. *Cuban Revolution Reader: a Documentary History of Fidel Castro's Revolution*. New York: Ocean Press, 2008.
- Library Of Congress: Federal Research. *Cuba: a Country Study*. Edited by Rex A Hudson. Washington, DC: Federal Research Division: Library of Congress, 2002.
- Mark, Jason. "Growing it Alone: Urban Organic Agriculture on the Island of Cuba." *Earth Island Journal*, Spring 2007: 32-36.
- Miroff, Nick. "Reform on the Range: Cubans Heed the Call to Farm." *National Public Radio*. September 21, 2010.
<http://www.npr.org/templates/story/story.php?storyId=129757511>
 (accessed October 26, 2010).
- Morsback, Greg. "Cuba's Organic Revolution." *BBC News*. June 27, 2001.
<http://news.bbc.co.uk/2/hi/business/1409898.stm>. (accessed October 26, 2010).
- Oppenheim, Sara. "Alternative Agriculture in Cuba." *American Entomologist* 47, no. 4 (2001): 216-226.

Perez, Louis A. *The War of 1898*. Chapel Hill, NC: University of North Carolina Press, 1998.

Staten, Clifford. *The History of Cuba*. Westport, CT: Greenwood Press, 2003.

The Platt Amendment, 1901. Fordham University. Jul 1998.
<http://www.fordham.edu/halsall/mod/1901platt.html> (accessed Dec 6, 2010).

Thomas, Hugh. *Cuba, or, The Pursuit of Freedom*. New York: Da Capo Press, 1998.