TAPPING THE AMAZON FOR VICTORY:
BRAZIL’S “BATTLE FOR RUBBER” OF WORLD WAR II

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ABSTRACT

Japan’s occupation of Southeast Asia in early 1942 cut off more than 90 percent of the global rubber supply to the World War II Allies. Without an adequate supply of this strategic material to meet military-industrial requirements, it was impossible to win the war. The Roosevelt Administration concluded that the success of the Allied war effort could depend on increasing the productivity of rubber tappers who extracted latex from rubber trees dispersed throughout Amazonian rainforests.

In response to Roosevelt’s appeal, Brazil’s President, Getúlio Vargas, organized a “Battle for Rubber” to increase rubber production in the Amazon. The authoritarian Brazilian government recruited around 30,000 “rubber soldiers,” mainly from the arid Northeast, and sent them to work on Amazonian rubber estates.

This study explores the dynamics of global, national, and regional actors as they converged and interacted with Amazonian society in the Battle for Rubber. Migrant rubber tappers, Amazonian rubber elites, indigenous groups, North American technical advisers, Brazilian government agencies, and the Roosevelt Administration were linked in a wartime enterprise to increase rubber production.
Although the Battle for Rubber produced only modest increases in rubber production, I argue that wartime intervention by the Brazilian state in the Amazonian economy was a catalyst for significant transformations in the region, beginning in World War II and continuing into the post-war era. The Brazilian government strengthened its role in the region’s economy and extended its authority into the vast Amazonian hinterlands. United States government financing for labor recruitment, rubber estates, public health programs, and transportation infrastructure for the Battle for Rubber advanced Brazil’s long-term goals of integrating the Amazonian frontier into the nation.

Thousands of rubber soldiers died of malnourishment and disease in the rainforests during the Battle for rubber. Rubber soldiers who married Amazonian women had the highest chances of survival, learning from them how to adapt to an unfamiliar environment and integrate into local society. Amazonian elites successfully contested efforts by the Brazilian and United States governments to break their stranglehold over the rubber trade. Frontier indigenous societies adopted diverse strategies to survive yet another onslaught of “civilization” on their traditional lands.
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arranged for me to interview survivors of the Battle for Rubber. In Manaus, James Fish introduced me to rubber tappers whom I interviewed about their fathers’ participation in the Battle for Rubber. Dr. Antonio Loureiro introduced me to his fellow academicians in Manaus and shared his own works on the history of rubber and navigation in the Amazon. I am grateful to all of the archivists and librarians who aided my research in Rio de Janeiro, Belém, Manaus, Washington, D.C. and New York. I particularly thank Dysson Teles Alves, who guided my research in the archives of the J. G. Araujo Company, most of which were not catalogued.

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INTRODUCTION

In a speech in late 2008 at a conference in Washington, D.C. on the future of Brazil’s relations with the United States, Brazilian Defense Minister Nelson Jobim stated that Brazil has not fought a war since the Paraguayan conflict of the 1860’s. Minister Jobim was almost certainly aware that Brazil sent an expeditionary force of 25,000 combat troops to fight German troops in Italy during World War II, but perhaps he did not consider that action to have been full-scale war for Brazil. Nevertheless, the Defense Minister missed an opportunity to remind his audience that Brazil and the United States were staunch allies during the most important war of the twentieth century. He could have told his audience that not only did the Brazilian Expeditionary Force (FEB) lose 457 soldiers in combat with German forces, but Brazil also lost many thousands of “rubber soldiers” – Brazilian migrant workers recruited by their government and sent to Amazonian rainforests to increase wild rubber production to support the Allied war effort.

Early in 1942, after Japan bombed Pearl Harbor and occupied most of Southeast Asia, President Franklin Roosevelt appealed to Brazil and other countries of Latin America to take urgent measures to increase production of natural rubber for the Allied war effort. A dangerous shortage of rubber loomed because the Allies relied on Southeast Asian plantations for more than 90 percent of their requirements of this strategic material, which was vital for modern warfare. In the absence of alternative sources of rubber, North American experts warned that the success of the Allied war effort could depend on the productivity of rubber tappers who extracted latex from wild rubber trees (mainly Hevea brasiliensis) in remote Amazonian rainforests. With over 60
percent of the Amazon Basin within Brazil’s national territory, persuading the Brazilian
government to launch a campaign to increase Amazonian rubber production was a
priority for the United States.

After seesawing between Germany and the United States to extract the maximum
economic benefits from each country, Brazil’s authoritarian ruler, President Getúlio
Vargas, became convinced by 1941 that the Allies would win the war. Vargas’s
government embarked on a program of close, but informal, cooperation with the United
States to support the Allies and reduce Germany’s influence in Brazil. In the wake of the
attack on Pearl Harbor, Brazil entered into a formal alliance with the United States under
the Washington Accords of March, 1942.

The World War II alliance between Brazil and the United States encompassed a
broad range of military, political and economic cooperation, ranging from constructing a
string of North American air bases along the Northeastern coast to producing strategic
raw materials for the Allies, the most important of which was rubber. In his seminal
study of the evolution of the wartime alliance between Brazil and the United States,
Frank McCann argues that Brazil’s interests in negotiating an alliance with the United
States were threefold: to obtain United States financing for Brazil’s nascent steel industry
and other industrial development projects; to bolster the defense of Brazil’s coasts from
attacks from German submarines and protect its southern flank from potential attacks by
Argentina; and to gain a leadership role in post-war international organizations, including
a coveted permanent seat on the United Nations Security Council. McCann’s argument
that the alliance made Brazil more dependent on the United States also applies to the

\[1\] Frank McCann, The Brazilian-American Alliance: 1937-1945 (Princeton: Princeton University Press,
1973).
Amazon, where the wartime revival of a depressed wild rubber industry depended on financing and guaranteed rubber prices from the North American government.

Under the Accords, Brazil launched a five-year program (1942-1947) to increase production of this strategic material and export the surplus to the United States for the war effort. Using military discourse, President Vargas launched the “Battle for Rubber,” announcing his plan to “enlist” and “mobilize” thousands of “rubber soldiers,” to “march” to Amazonian rainforests and extract wild rubber to support the Allies. During the “Battle for Rubber,” global, national, and regional actors intersected and interacted with local societies in the unique Amazonian environment, creating new dynamics that influenced the course of Amazonian development for several decades. For a brief, but intense period, rubber tappers, North American technical advisers, the Amazonian rubber elite, the authoritarian Vargas government, and the Roosevelt Administration were linked in an enterprise to accelerate rubber production to support the Allied cause.

This dissertation will examine interactions and dynamics among the major actors during the Battle for Rubber. Key actors intersected as they pursued their objectives: the Brazilian government enhanced its role in the Amazonian economy and extended its presence in the Amazonian hinterlands; the United States dispatched funds and technical experts to Brazil to stimulate wild rubber production; the Amazonian rubber elite contested efforts by the Brazilian and United States governments to break its stranglehold over the region’s rubber trade; migrant rubber tappers struggled to adapt to arduous work in a unfamiliar environment; and frontier indigenous societies adopted diverse strategies to survive yet another onslaught of “civilization.”
This dissertation presents the case that wartime intervention by the Brazilian state in the Amazonian economy, in partnership the United States government, was a catalyst for significant economic, social, political and environmental transformations in the Amazon, beginning in World War II and continuing during the post-war era. Most scholars of the rubber campaign, including Pedro Martinello, Lúcia Arrais Morales, and Luiz de Miranda Corrêa view the Battle for Rubber as a brief, encapsulated event that ended abruptly with the withdrawal of the United States in 1947, and had little influence on the future course of Amazonian history. In their work to analyze and deconstruct the dynamics of the Battle for Rubber, scholars have examined important facets of the wartime undertaking, but they have not devoted much attention to the longer-term consequences of direct government intervention in the Amazonian rubber economy. In contrast to the laissez-faire economy of rubber boom of 1850-1912, in which Brazil’s federal government played a very limited role, intervention by the state in the Amazonian economy was a crucial factor in the Battle for Rubber.  

I argue that North American financial and technical support for the rubber campaign enabled the Brazilian federal government to strengthen its role in the Amazonian economy and advance its goals of integrating the Amazon into the nation through colonization and development. A central theme of this dissertation is that the Brazilian government used the alliance for rubber to enhance its presence in the Amazonian hinterlands, a vast region that was still governed by the dynamics of the frontier.

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2 In this study, the Amazon rubber boom refers to the great boom of 1850-1912, while the “Battle for Rubber” refers to the revival of the Amazonian wild rubber trade from 1942-1947 under the Washington Accords.
In 1940, as the first Brazilian president in history to visit the Amazon, Getúlio Vargas set the stage for greater state involvement in shaping its society and economy. Vargas’s vision of integrating the Amazon into the nation by promoting a “March to the West” - the migration of marginal Brazilian rural workers to colonize the region - became more than rhetoric when the requirements of global warfare stimulated the Roosevelt Administration to finance the recruitment of tens of thousands of Brazilian rubber soldiers, principally from the Northeast, to produce rubber in Amazonian rainforests.

This study argues that the wartime partnership between the Brazilian and United States governments to revive the wild rubber production industry, organize a large influx of rural workers, improve transportation networks, and establish public health service posts influenced the course of Amazonian development by extending the authority of the Brazilian government into the region’s hinterlands and laying the groundwork for major state-led infrastructure projects in the Amazon during the post-war era. The Battle for Rubber contributed to the integration of the Amazon frontier into the Brazilian nation, paving the way for Brazil’s military government (1964-1985) to launch ambitious developmentalist programs that devastated the environment and indigenous societies.

Surging wartime requirements for rubber caused great hardships for rubber tappers, their families, and indigenous groups. This study explores the survival strategies of these subaltern groups, as well as their efforts to negotiate and contest the demands of both the rubber elite and the Vargas government. Through an analysis of official government discourse as well as the words of the rubber tappers and their families, I explore the evolution of the cultural identities of rubber tappers from “flagellated victims” to “heroic rubber soldiers.” Examining the integration of the rubber soldiers
into Amazonian society, I found linkages between the rubber soldiers of World War II and post-war communities of rubber tappers who defended their forest resources against destruction by land developers.

Efforts by the two governments to break stranglehold of the Amazonian elite on the rubber trading system and improve labor conditions on the rubber estates predictably met with resistance. The traditional *aviador* trading system was based on a chain of patron-client relationships through which large Amazonian import-export firms advanced supplies on credit to merchants and river traders who, in turn, marked them up and delivered them to far-flung rubber estates on credit in return for their future rubber production. Rubber estates owners and managers, in turn, advanced the merchandise to their rubber tappers, debiting their accounts for over-priced imported food and basic supplies and crediting them for their rubber production, which they delivered to the same riverboat traders. Riverboat traders delivered rubber to *aviador* firms, which forwarded the raw material to international exporting companies. Rubber estates and traders profited by overcharging rubber tappers for their food and supplies and undervaluing their rubber production, leaving most rubber tappers in perpetual debt. Disappointingly low rubber productivity was linked to the abysmal conditions on many estates, where the triple scourges of malnutrition, disease, and chronic poverty plagued the workers.

An examination of the Amazonian rubber elite’s strategies to circumvent measures by the two allied governments to assert control over the wartime rubber trade reveals that neither government had the resources necessary to impose their decisions on the rubber estates. The dispersal of rubber estates throughout a vast region of tropical
forests and remote tributaries impeded government agencies from enforcing measures to reduce profiteering by the rubber elite and improve labor conditions of the rubber tappers.

The wartime alliance with Brazil gave the United States government an unprecedented opportunity to send technical experts to survey the Amazon and gather information about its society and natural resources, despite wariness on the part of Brazilian nationalists about the post-war intentions of North American business interests.

To what extent did the role of the United States in the Battle for Rubber influence the course of Amazonian development? This dissertation examines the costs and benefits to both Brazil and the United States of their cooperation in the Amazon.

The Battle for Rubber in the Brazilian Amazon is the principal subject of a small body of literature written by Brazilian and North American scholars. The Getúlio Vargas era and his efforts to construct a centralized, industrializing state have inspired a voluminous body of scholarship, but little work has been done on his government’s policies and programs in the Amazon. Scholars have examined different aspects of the Battle for Rubber, including the alliance between Brazil and the United States; the recruitment and migration of the rubber soldiers; labor and health conditions on the rubber estates; cultural identities of the rubber tappers; the revival of the traditional rubber production and trading system; experiments in cultivating rubber in its native habitat; and the introduction of public health services to the Amazon. In this work, I aim to integrate all of these issues and place the World War II Battle for Rubber in the context of the course of Amazonian history and development.

This study examines the impact of the participation of the Brazilian state and its ally, the United States government, on the economy, society and environment of the
Amazon. The most important transformation of this period was the pivotal role of the Brazilian government in the Amazonian economy, which previously had been dominated by an alliance of regional elites with foreign traders and investors. To revive wild rubber production, the Brazilian state intervened directly in the region to supply labor and capital to the Amazonian rubber estates. Had Brazil relied on the United States to support the wild rubber industry in the post-war era, however, the Amazonian economy would have collapsed after the war was over. Allied victories over Germany and Japan and the availability of vast quantities of synthetic rubber led the United States to end the rubber program by 1947, but due to protectionist intervention by the Brazilian government, the Amazonian rubber economy did not collapse. This study explores post-war negotiations between the Brazilian government and the Amazonian rubber elite to save the Amazonian wild rubber industry through price guarantees and international trade barriers and argues that after the Battle for Rubber, the Brazilian state replaced the traditional Amazonian elite as the principal actor in the rubber trading economy.

The earliest Brazilian histories of the Amazon rubber economy during World War II were written by leading members of the Amazonian elite whose work reflects their interests in promoting Amazonian development and culture. For the Amazonian elite, the most important feature of the Battle for Rubber was the influx of United States government financing and technical expertise into the region, stimulating rising expectations of accelerated economic development. Luiz de Miranda Corrêa published the first study on the rubber campaign in 1967, which focuses on the operations of the plethora of Brazilian and United States government agencies involved in the effort to
accelerate wartime Amazonian rubber production.3 His analysis of the programs of various government agencies to recruit labor, finance investments, build transportation infrastructure, improve public health and supply the region with imported food, fuel and tools constructs a framework for understanding how the ambitious rubber program was organized by each government and how the agencies involved interacted. Corrêa argues that United States government programs to organize the rubber campaign and improve Amazonian transportation and financial infrastructure were positive stimuli to the regional economy and served as models for the economic development of the region. He criticizes Brazil’s federal government for losing interest in the region after the war ended and for failing to provide adequate resources for the region’s development after the wartime influx of dollars stopped. Corrêa’s regionalist perspective and distrust of Brazil’s federal government limits the scope of his analysis, leading him to focus on the wartime participation of the United States and overlook longer-term implications of the Brazilian state’s invention in the Amazonian economy both during World War II and in the post-war years.

Samuel Benchimol, a regional historian and state politician in Amazonas, studied the conditions of migrant rubber soldiers, based on interviews with rubber tappers and their families.4 His studies contribute to our understanding of the economic and social structures of the rubber production cycle, the social and cultural anthropology of both migrant and native Amazonian rubber tappers, the development of mixed-race caboclo

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communities characteristic of the rural Amazon, and the growth of Manaus as a major port city. A staunch defender of the extractive rubber economy and the Amazonian elite, Benchimol focuses his attention on regional dynamics, rather than placing the Battle for Rubber within the context of national development and integration.

Brazilian historians of the Amazon who entered the profession during or after military rule in Brazil (1964-1985) observed the disastrous consequences of the government’s predatory development policies in the Amazon for indigenous groups, rural workers and the environment. To this generation of Brazilian historians, economic development was not a measure of successful governance in the Amazon unless it was accompanied by social justice for the poor and protection of the environment.

Studies written on the Battle for Rubber by Pedro Martinello, Lúcia Arrais Morales, and María Verónica Secreto focus primarily on the impact of the federal government’s measures to colonize and develop the Amazon on the rural poor – including rubber tappers, indigenous groups and other Amazonian workers. Rather than blame Amazonian rubber elites for a second cycle of abuse and exploitation of migrant rubber tappers and native Amazonian rural workers (caboclos) during World War II, these scholars criticize the Vargas government for adopting a pro-labor discourse during the recruitment phase and then abandoning the rubber soldiers to their fates after they arrived at the rubber estates. Given the dismal conditions of the rural poor in Brazil, Vargas’ pro-labor discourse provoked justified charges of hypocrisy and hidden political agendas.

Although President Vargas’ program to recruit “rubber soldiers” to extract rubber in the Amazon was ostensibly a campaign to support the wartime alliance, Lúcia Arrais
Morales suggests that his real objective was to advance the government’s long-term goal of moving marginal populations of rural poor from the Northeast to occupy the Amazonian frontier. Morales’s anthropological study of the “rubber soldiers” places the World War II migration in the context of historic and recurring migration patterns between the Northeast and the Amazon. Her insights on Brazil’s state policy of colonizing the Amazon with excess rural labor from the Northeast contributed to the formulation of my argument that the Vargas government used United States wartime financing for the migration of the rubber soldiers to advance its own goal of colonizing the Amazon.

Through interviews with veteran rubber soldiers, Morales taps into their memories of their arduous journeys under sub-human conditions and the varied strategies they adopted to survive in a new environment that proved fatal to many of their companions. Rejecting the characterization of rubber soldiers as victims of the state, Morales contends that many rubber soldiers decided to enlist because their relatives had already worked in the Amazon. Some had settled in the Amazon, while others were marginal rural laborers who had migrated to escape droughts and later managed to return to the Northeast. Morales argues that rural migration between the Amazon and the Northeast was a two-way journey, with migrants retuning to the Northeast when conditions there improved and then sending younger family members to work in the Amazon when another drought cycle stimulated a new exodus.

Pedro Martinello’s study of the “Battle for Rubber” examines the negative consequences for the migrant rubber soldiers of the wartime alliance to produce this

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strategic material. In a study published posthumously and edited by his graduate students, Martinello - a Catholic priest who left São Paulo to become a university professor in Acre – critiques the campaign to increase rubber production through the lens of a dependency theory framework. Martinello makes the argument that the Vargas government reverted to nineteenth-century liberal trading patterns by stimulating a revival of Amazonian rubber estates in order to produce cheap raw materials to meet the wartime demands of a dominant global power. Intervention by the Brazilian and United States governments in the wild rubber industry ultimately reinforced the exploitative *aviamento* trading system, leaving rubber tappers at the mercy of their bosses. According to Martinello, unfavorable terms of trade between the United States and primary product producers in the Amazonian periphery led to complicity between Vargas’ authoritarian government and regional elites in the exploitation of the rubber workers.

The wartime rubber campaign revived the Amazonian rubber trading elite after three decades of recession. I argue that the Brazilian government tried to break the dominance of the regional rubber elite in order to project its own authority and influence in the Amazon. The creation of the Rubber Credit Bank of Amazonia, financed by the United States and Brazil, diminished the traditional roles of the *aviador* trading elite by establishing a monopoly over the purchase of rubber and by offering government financing to the rubber estates.

To document his arguments that the Brazilian government abandoned the rubber soldiers after the war, Martinello mined the records of Brazil’s Parliamentary

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7 Ibid.
Commission of Inquiry of 1946, which concluded that, lacking the means to pay for their own transportation to their original homes after the war, many thousands died, abandoned in the rainforests. After delivering the rubber soldiers to far-flung Amazonian rubber estates, the Brazilian government left them to fend for themselves. Given Vargas’s policy of promoting the colonization of the Amazon by marginal rural laborers from the Northeast, I argue that the Brazilian government had little or no interest in transporting the rubber soldiers back to their original homes after the war because their permanent settlement in the Amazon served the national interest.

Martinello’s extensive research in the frontier state of Acre provides a valuable basis for comparison with conditions in Pará and Amazonas. His research on letters written by missionaries on behalf of the rubber tappers to protest their conditions to government authorities provides valuable insights on the alliance of rubber tappers with social activist Catholic clergy and their discourse and interactions with the Vargas government.

Reflecting his ambivalence concerning United States participation in the wild rubber industry’s wartime revival, Martinello castigates the Roosevelt Administration for expediency and opportunism in exploiting the primary resources of the Amazon to fulfill its wartime strategic materials requirements, but he also criticizes the postwar withdrawal of North American financing and advisers because it depressed the Amazonian economy.

Challenging Martinello’s assertions that the “Battle for Rubber” had little transformative impact on Amazonian society after the United States withdrew, I argue that heavy government participation in providing migrant labor for the Battle for Rubber led to a significant reduction in incidents of torture and physical abuse against rubber
tappers seeking to flee from the estates during the “Battle for Rubber,” compared to the widespread use of violence as a tool of labor control during the Amazon rubber boom era (1850-1912). Thousands of rubber soldiers died on the estates of malnutrition and disease, but those who survived had greater chances of leaving the rubber estates to seek a better life. Interviews with surviving rubber soldiers and their families reveal that many of them developed survival strategies to improve their conditions, including marrying Amazonian women, befriending neighboring indigenous groups, or escaping to the cities.

Getúlio Vargas was the first Brazilian president to use modern tools of communication, including films and radio, to appeal directly to the masses, but the gap between his rhetoric and the harsh realities of life for the poor was enormous.\(^8\) As the first Brazilian president to rely on the support of the working classes, Vargas made himself accessible by publicly encouraging the poor to write to him, answering some of their letters, and occasionally granting their requests for help. In his study of their letters to President Vargas, Robert Levine analyzes the discourse that ordinary Brazilians used to present their petitions for help and social benefits in the (usually vain) hope that he would intervene personally, in keeping with his image as “the father of the poor.”\(^9\)

Rubber soldiers and their families wrote to Vargas, using the patriotic discourse of the wartime “Battle for Rubber” to make their cases for support from the state. In their letters, they appealed to the president by contrasting their arduous work to produce rubber for the Allies to the exploitation and profiteering practiced by seringalistas and aviadore.

Through their letters and petitions, Maria Verónica Secreto evokes the long struggle of wives and families of the rubber soldiers to obtain family support payments

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\(^9\) Ibid.
and pensions promised, but not delivered, by the government. In a recent study of the
odyssey of the rubber soldiers, Secreto examines official discourse, which sought to
convince potential recruits that the debt peonage labor system of the nineteenth-century
rubber boom was a relic of the past and that rubber soldiers sent to the Amazon would
enjoy protection under government-issued labor contracts. Secreto analyzes the chasm
between the discourse of the state and the realities of conditions in the rubber estates,
contending that the labor laws of the federal government were irrelevant in the
hinterlands where the traditional *aviamento* system still prevailed. I argue that by
signaling government interest in the rubber soldiers, the labor contracts contributed to
reducing violent abuses by the elite against rubber soldiers.

Female partners of rubber tappers were often crucial to the survival of the migrant
“rubber soldiers” in the humid tropics. Rubber work was considered a masculine
profession, because of the cultural assumption that women should be excluded from
rubber tapping due to the dangers of working in the rainforests alone at night. A
welcome exception to the dearth of scholarship on women in the rubber estates is a study
by Cristina Scheibe Wolff, in which she examines the participation of women in rubber
production in Acre from 1890 through the Battle for Rubber. The ratio of men to
women in Amazonian rainforests was highly unbalanced and competition for the scarce
supply of women made life very hazardous for women working on rubber estates.
Through her research on court records during the first half of the twentieth century, Wolff
cites numerous cases of rape, abduction and forced marriage of young women who lived

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on rubber estates. Despite the assumption that women did not engage in rubber extraction, Wolff’s study reveals that rubber estate managers often compelled widows of rubber tappers to take over their late husbands’ jobs until their debts to the trading post were paid. North American rubber technicians occasionally encountered women working as rubber tappers during World War II, and observed that they were more productive and reliable than their male co-workers.

Working in the rainforests was fraught with health hazards, particularly for migrants to the humid tropics. Malaria was the biggest health threat to migrant rubber soldiers in the Amazon. Without natural or acquired immunities, newcomers were much more susceptible to malaria and other tropical diseases than were native Amazonians. Without improvements in public health, North American experts warned that it would be impossible to significantly increase the productivity of rubber tappers in the Amazonian environment.

To support the “Battle for Rubber” and protect North Americans soldiers stationed in northeastern Brazil, the United States financed and provided medical expertise for a new Brazilian public health service, O Serviço Especial de Saúde Pública (SESP). Public health was a priority for the Vargas government as it sought to construct a nation of healthy Brazilians, but the government’s focus was on the cities of the Southeast, not the rural hinterlands. Under the leadership Nelson Rockefeller, President Roosevelt’s Coordinator for Inter-American Affairs, the United States government provided resources to the Brazilian government to extend public health services to the Amazon. SESP’s responsibilities included monitoring the health of the rubber soldiers
during their voyages to the Amazon and implementing public health programs designed
to increase the productivity of rubber workers in the Amazon.

In a recent study, André Luiz Vieira de Campos examines the role of the first
national public health service to work in the Amazon and places it squarely within the
context of President Vargas’s nation-building efforts. Although the official purpose of
the Amazon program was to increase the wartime productivity of rubber tappers by
preventing malaria and other diseases, Campos convincingly argues that the Vargas
government used the establishment of a network of SESP health posts along major
Amazonian tributaries in the hinterlands to advance its goal of extending the presence of
the state into the frontier. His study concludes that Vargas used United States
government programs to improve the region’s health and sanitation infrastructure during
the rubber campaign to further his objective of integrating the Amazon with the rest of
Brazil.

Campos’s study also analyzes the dynamics between national public health
workers and local riverine communities in which the Brazilian government tried to
replace traditional healers and midwives with health care professionals trained in modern
medicine. Using financing and technical expertise provided by the United States, the
Vargas government brought public health services to towns and villages along the main
Amazonian tributaries for the first time, projecting “soft” state power and building
relationships with local leaders.

Malaria was rampant on the rubber estates, but SESP’s program to distribute
millions of Atabrine tablets to rubber tappers in order to prevent malaria had only limited

12 André Luiz Vieira de Campos, Políticas Internacionais de Saúde na Era Vargas: o Serviço Especial de
Saúde Pública, 1942-1960 (Editora FIOCRUZ, 2006.)
success. Although Atabrine was sent to the rubber estates free of charge, estate managers often charged rubber tappers for the medicine, preferring to make a quick profit rather than safeguard the health and productivity of their workers.

North American historians have contributed significantly to scholarship on the first Amazon rubber boom and attempts to develop rubber plantations in the Amazon, but very few have focused specifically on the Battle for Rubber. An important exception is Seth Garfield’s examination of the use of gender in the official discourse of the Vargas government as it attempted to transform the image of migrant rubber tappers from the *flagelados* (flagellated victims) of the nineteenth-century rubber boom to the heroic, masculine “rubber soldiers” during the World War II era. Analyzing Brazilian and North American government recruitment propaganda disseminated through the mass media, Garfield argues that calling the recruits “soldados da borracha” was an effort to portray them as intrepid frontiersmen, eager to extract wild rubber in a lush land of plenty, whose patriotic work to support the war would earn them honor with their families and respect from the nation.\(^\text{13}\) Garfield contends that the militarization of the identity of migrant rubber tappers was an element in Vargas’ nation-building discourse that sought to elevate the reputation of military service and associate it with the responsibilities of citizenship.\(^\text{14}\) Indeed, upon their arrival in Manaus, Vargas’s personal representative, the Interventor of Amazonas, honored groups of rubber soldiers with parades to recognize their service to Brazil. Unfortunately for the rubber soldiers, the parades were only wartime propaganda and government officials abandoned them as soon as they arrived at the rubber estates. After the war, it took over forty years for the state to recognize the


\(^\text{14}\) Ibid, 293.
contributions of these citizen-soldiers and agree to pay them minimal pensions. Nevertheless, the reinvention of the identity of migrant rubber tappers as “soldiers” dispatched to the Amazon armed wartime rubber tappers with a new patriotic discourse with which they argued for their rights.

During the Battle for Rubber, an advancing rubber frontier threatened traditional indigenous societies. In a study of frontier expansion and Xavante Indian resistance, Garfield examines the wide gap between Vargas’s nostalgic tributes to the contribution of indigenous societies to the construction of Brazil and his “March to the West” policy of colonizing the Amazon and Center-West with Brazilian rural workers from other regions. Pacification and integration of frontier Indians were essential components of the March to the West. The influx of thousands of rubber soldiers to frontier regions of the Amazon was yet another onslaught of “civilization” that threatened the traditional lands and communal cultures of Indian groups. Their stories of resistance to and accommodation with the demands of frontier rubber estates in the 1940s follow the familiar patterns of the nineteenth-century rubber boom. Some frontier indigenous groups negotiated with rubber traders and agreed to work as rubber tappers; others retreated further into inaccessible forests; and more militant groups violently resisted the encroachment of rubber estates on their lands.

Garfield’s examination of the dynamics and negotiations between the Xavante and the Brazilian state reveals interesting similarities between the strategies of resistance, contestation and negotiation adopted by the Xavante Indians and those of rubber tappers in Acre, led by Chico Mendes - the son of a rubber soldier. This study argues that the

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rubber tappers’ movement of the 1970’s and 1980’s had roots in the struggles of the rubber soldiers to survive on the rubber estates, integrate into Amazonian caboclo society, and claim their legal rights to their pensions from a government that had abandoned them.

The works of Barbara Weinstein and Warren Dean are essential foundations for any study of the Amazonian rubber cycle during World War II and in the post-war era. Their contributions are discussed in greater detail in the following chapter on Amazonian development before World War II. In her work on the Amazon rubber boom of 1850-1912, Weinstein examines the structures of the extractive production and mercantile exchange systems that shaped the rubber economy. Weinstein argues that the rubber boom economy was essentially pre-capitalist in its relations of production and exchange, with the Amazonian elite controlling the marketing of the commodity, but leaving production in the hands of semi-autonomous rubber tappers. Her observations on the resistance of local trading elites to rubber cultivation and other attempts to reform the aviador trading system are foundations for the study of the World War II rubber cycle.

Drawing upon her research in Pará, the most economically developed region of the Amazon, Weinstein rejects the conclusions of earlier scholars that rubber tappers were inevitably trapped into perpetual indebtedness by the rubber estates, arguing that in regions where there was strong competition for rural labor, rubber tappers could use credit advanced to them by their bosses to acquire necessities at the trading posts, while retaining the mobility to leave their rubber estates for better employment opportunities without violent reprisals. I argue that these conditions did not prevail in most of the Amazon. Deep in the Amazonian hinterlands and frontier areas, extreme isolation,

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dependence on rubber estates for overpriced and unhealthy imported food, and lack of employment alternatives in the vicinity left most rubber tappers trapped in chronic indebtedness and unhealthy conditions without much hope of escape.

Critical of wild rubber extraction as a primitive mode of production, Vargas advocated scientific modernization and the rationalization of modes of production in the Amazon. During his trip to the Amazon in 1940, Vargas visited the Ford Motor Company’s huge rubber plantations near the port of Santarém to show his support for “rational” rubber cultivation. He praised Ford’s provision of extensive social welfare benefits to its workers, including housing, schools, cafeterias, and hospitals, which the company provided despite its failure to make a profit.

In a recent study of the Ford plantations, which operated in the Amazon between 1927 and 1945, Greg Grandin attributes the company’s failure to produce commercial quantities of rubber to Henry Ford’s arrogance in trying to impose his vision of a North American rural utopia in the Amazon. Grandin argues that the company’s difficulties in recruiting and retaining sufficient labor to cultivate millions of rubber trees stemmed from the North American managers’ insensitivities to the local culture and environment.\(^\text{17}\)

Why would workers suffering malnutrition, disease, and grinding poverty refuse to accommodate to the Ford Company’s environmental and cultural insensitivities in return for the security of higher wages and unprecedented benefits? Did rural workers living near the Ford Plantations actually suffer from such abysmal conditions? Both Grandin and Weinstein portray labor conditions along the main rivers of Pará as relatively favorable. The collapse of the first rubber boom in 1912 stimulated a large

exodus of migrant rubber tappers, leaving the Amazon with rural labor shortages.

Barbara Weinstein’s work on the first rubber boom concludes that, in most of Pará - the state in which the Ford plantations were located - rural workers had opportunities to negotiate for viable employment and subsistence alternatives. The small rural labor force that remained in Pará enjoyed considerable autonomy during the period of economic recession and “decompression” that began in 1912 and lasted until the World War II rubber campaign.18 Along the main rivers, food distribution networks were adequate and employers vied to attract scarce rural labor for extractive industries, agricultural colonies, municipal projects, and river transportation. Rural workers enjoyed greater mobility and suffered less coercion during the “decompression” period than at the peak of the first rubber boom - a period in which soaring rubber profits stimulated rubber barons to use coercion to keep their labor forces working feverishly on the estates.

The Ford plantations introduced modern large-scale agricultural capitalism to the Amazon. Plantations required year-round laborers, whereas rubber tappers worked only six months of the year on collecting wild rubber, after which they were free to devote their time to subsistence activities and other pursuits. Rubber tappers disliked the regimentation of plantation work and considered the obligation to work all year round as too onerous, notwithstanding the high wages offered by Ford.

In Pará, many *caboclo* rubber tappers were autonomous forest producers, who held registered claims for the land that they occupied, selling their rubber production exclusively to a local *aviador* in return for supplies advanced to them on credit.19 Patron-client relations were unequal but based on reciprocal obligations, rather than on coercion.

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19 Weinstein, 45-48, 167-169.
Rubber tappers who held land claims did not want to risk losing their land to their *aviador* by leaving to work elsewhere. Local trading elites discouraged their clients from taking jobs at the Ford Company, insisting that they settle their debts to their patrons first, while claiming that wages and conditions at the plantations were poor.  

The trade-off offered by Ford for the loss of autonomy and mobility on the plantations was security for the workers and their families through an unprecedented package of benefits including cheap food as well as free housing, schools, health care, electricity, clean water, indoor plumbing, and recreational facilities. Security appealed to migrant rubber tappers who did not know how to survive in the Amazonian environment and workers who were trapped in the abysmal conditions more typical of frontier rubber estates.

I argue that to migrant rubber workers and their families living on the edge of survival, enduring regimented labor and culturally insensitive practices imposed by foreigners at the Ford Plantations was preferable to malnourishment, disease and lack of health care. Ford initially tried to recruit its workers from settlements near the main channel of the Amazon and the Tapajós River, where most rural laborers had other options. Later, the plantations hired indigent laborers from the Northeast, who, following the migration patterns established during the first rubber boom, traveled to Fordlandia to find work. Laborers from the arid Northeast were unfamiliar with the Amazonian environment and therefore more dependent on the plantations for their welfare and subsistence than were Amazonian *caboclos*.

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20 During the rainforest-clearing and construction phases at Ford, workers lived in primitive camps and endured unhealthy conditions, including bad food and attacks by animals.

21 Grandin, 156.
Drawing on the research and experiments of plant scientists in the Amazon, Warren Dean makes a convincing argument that attributes the failure of rubber cultivation in the Amazon to the persistence of South American Leaf Blight, rather than to labor shortages on the Ford plantations. In an environmental history, Dean focuses on Ford’s unsuccessful efforts to cultivate rubber and establish a plantation economy in the Brazilian Amazon. The plantations had to deal with an enormous environmental challenge, the South American Leaf Blight, a fungal disease that quickly spread through planted rows of rubber trees, causing the trees to rot. Ford’s labor problems were eventually resolved through the appointment of more culturally sensitive new managers, but the leaf blight continued to plague new hybrids developed by plant scientists.

Dean examines the work of Brazilian and North American plant scientists who experimented with modern hybridization and cloning techniques to develop new disease-resistant species of rubber trees that were also highly productive and contends that they would have succeeded had they received more support from the state. The failure of modern science to resolve the problem of leaf blight on Amazonian rubber plantations meant that wild rubber extraction would remain the most cost-effective mode of rubber production in the region.

Critiquing the resurgence of extractive rubber production during World War II as retrograde because it resulted in the revival of an exploitative trading system that kept most rubber tappers in chronic debt, Dean concludes that the costs of the “Battle for Rubber” outweighed the benefits of the modest rubber production increases attained. The

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greatest losses were the deaths and disappearances of up to 17,000 – 20,000 rubber soldiers, which Dean attributes to the revival of the extractive rubber industry.\textsuperscript{23}

In Dean’s view, rubber plantations were a rational and more progressive alternative to the “archaic and reactionary” rubber trading system.\textsuperscript{24} He argues that the Brazilian and United States governments resuscitated the fading Amazonian rubber elite, who went on to use their political influence to oppose further research on disease-resistant and productive rubber trees. In Dean’s view, a negative post-war legacy was the revival of traditional rubber elites, who blocked further government-funded scientific research and experiments designed to transform the mode of Amazonian rubber production from extraction to cultivation. Nevertheless, private rubber companies continued scientific research on rubber cultivation in Brazil during the post-war era, but failed to overcome the challenge of the leaf blight in the Amazon. Despite Dean’s contention that investment in scientific research and experimentation would eventually produce highly-productive species that were resistant to South American Leaf Blight, rubber plantations have never thrived in the Amazon.

Dean’s identification of the leaf blight as the principal obstacle to rubber cultivation in the Amazon remains valid, but his insistence that “rational” rubber cultivation was a preferable alternative to wild rubber extraction has not stood the test of time. In the post-war era, environmentalists have adopted a more positive view of the extractive mode of production as a sustainable method of forest production that has a low environmental impact. The challenge for Chico Mendes and others who worked to liberate rubber tappers from exploitation was to separate the extractive mode of production from the harms of systematic human rights abuses.

\textsuperscript{23}Ibid, 103-104.
\textsuperscript{24}Ibid.
production from an exploitative trading system that kept left most rubber tappers at the mercy of rubber estates bosses and local trading elites.

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This study is organized around an introduction and six chapters. The introduction presents the central themes of this work and a discussion of the scholarly literature on the “Battle for Rubber” of World War II. The first chapter includes a brief analysis of the evolution of Amazonian society in the context of its unique environment. The chapter also includes a discussion of the debates surrounding the nineteenth-century Amazon rubber boom cycle and efforts to modernize and rationalize Amazonian rubber production by replacing the traditional extractive industry with a plantation economy.

In the second chapter, I examine the process of forging an alliance between Brazil and the United States in the context of the urgent wartime requirement for rubber and analyze the divergent interests of each party. Drawing on primary sources, the chapter analyzes the negotiations of the Washington Accords on the Amazon rubber campaign, focusing on diplomatic and internal government debates over the appropriate role of the United States government in the Amazonian economy and establishing limits on bilateral cooperation in order to protect Brazil’s sovereignty over the region. This section concludes with a discussion of the organization of new bureaucracies in both the Brazilian and United States governments to implement the Amazonian rubber production agreements.

Chapter III focuses on the recruitment and mobilization of the “rubber soldiers” by the Brazilian government, their arduous journeys to the Amazon and conditions that they encountered in the rubber estates. This part of the study explores the evolution of
the state’s discourse concerning migrant workers from the Northeast to the Amazon and the Brazilian government’s attempt to change their identities from downtrodden and displaced drought victims (*flagelados*) to intrepid and patriotic “rubber soldiers.” The chapter discusses the rights accorded by the Brazilian government to the rubber soldiers through labor contracts and analyzes their impact. To examine the survival strategies of the rubber soldiers and their families, I draw on primary sources, including letters and interviews.

The fourth chapter is an examination of the efforts Brazilian and North American government agencies to manage the wartime rubber production program in the Amazon and their interactions with local society. In this section, I explore the dynamics between government entities and Amazonian elites as they vied for control of the rubber trade. The chapter also discusses the work of the first public health service in the Amazon and its attempts to introduce basic health care to the hinterlands and reduce the incidence of malaria on the rubber estates. Drawing on reports written by Rubber Development Corporation field technicians who inspected rubber estates throughout the Amazon, I examine production, labor conditions, health, food supplies, and debt-credit relations on the estates. Reports by the rubber technicians provide observations and insights on conditions on remote rubber estates that had never been visited by foreign observers or Brazilian government officials. Based primarily on their reports, I discuss encounters between rubber producers and indigenous groups in areas where the rubber frontier encroached on traditional indigenous lands.

The fifth chapter evaluates the contributions of the “Battle for Rubber” to the Allied war effort and its impact on Amazonian society and post-war development. The
chapter covers the post-war withdrawal of the United States and Brazilian state-led efforts to re-orient Amazonian rubber production to supply the manufacturing sector, centered in the Southeast. I discuss the post-war abandonment of the rubber soldiers and examine the strategies of the survivors to integrate into Amazonian society and claim the pensions that their government had promised the veterans of the Battle for Rubber, but failed to deliver.

This chapter also analyzes the legacies of the active participation by the United States government in the Amazon in the context of the future development of the region. I argue that the activism of the United States government in the Amazon during World War II was a catalyst for the Brazilian military to launch its own program to occupy, control and colonize the Amazonian frontier to prevent other powers from challenging Brazilian sovereignty over the remote region. Nationalist fears over protecting the natural resources of Amazon from the ambitions of U.S. corporations added to the Brazilian government’s eagerness to occupy and integrate the vast frontier into the Brazilian nation. I present the case that that North American efforts to improve transportation networks and public health in the Amazon laid the groundwork for post-war Brazilian governments to implement mega-infrastructure projects to support programs to occupy, colonize and develop the Amazonian frontier. The chapter examines the impact of the developmentalist era under military rule (1964-1985), when the Brazilian government stimulated mass migration and agricultural investment in the Amazon, leading to large-scale devastation of the rainforests and threatening the survival of rubber tapper communities and indigenous groups.
I conclude with a discussion of the evolution of rubber tapper communities in the post-war era and analyze linkages between the post-war struggles of the rubber soldiers and those of the next generation of rubber tappers who resisted the destruction of the rainforests to make room for environmentally-unsustainable agricultural enterprises. The chapter ends with an analysis of the strategies adopted by the rubber tappers’ movement, including their alliance with the international environmental movement and successful advocacy for the creation of extractive reserves for rubber tappers and other forest producers.

The sixth and concluding chapter is an evaluation of the costs and benefits of the Battle for Rubber to the stakeholders, including the rubber soldiers and their families, indigenous groups, Amazonian rubber elites, the Brazilian government, the United States, and the World War II Allies.
CHAPTER I

EVOLUTION OF THE AMAZONIAN ECONOMY

Environmental and Anthropological Perspectives

The unique Amazonian environment is a major factor in the history of the Battle for Rubber. Global, national and local actors converged to extract its coveted natural resource and export crude rubber to support the military campaigns of World War II. Most of the actors were not natives of the Amazon and had to adapt to the humid tropics. Migrant “rubber soldiers” faced the most difficult transition, for most of them were landless rural workers from the arid Northeast whose lives had not prepared them for the challenges of working and surviving in Amazonian rainforests. Confronted with food scarcities, unfamiliar tropical diseases, and dangerous wildlife, rubber soldiers had to learn quickly how to adapt to their new environment in order to survive.

The area of the Amazon Basin is more than 2.7 million square miles, including a complex river system of 2,000 tributaries from which flows one-fifth of the world’s fresh water.25 The Brazilian Amazon represents approximately 60 percent of the Amazon Basin. Its vast rainforests, rich biodiversity and complex river systems of the Amazon Basin have inspired scholars to interpret Amazonian history through the prism of its environment.

Until the twentieth century, scholarship on the Amazon focused on the natural sciences and the environment, with the indigenous people of the Amazon portrayed as part of the ecology rather than as independent agents. Studies by Alfred Wallace and Henry Bates - British natural scientists who traveled to the Amazon in the mid-nineteenth century to collect and classify many thousands of species - contributed to the theory of evolution developed and articulated by their contemporary, Charles Darwin. Wallace and Bates also explored man’s interactions with the Amazonian environment, laying foundations for subsequent scholarship.  

In the twentieth century, anthropologists began to live for extended periods with indigenous groups in order to document cultures that they thought were doomed to extinction. They studied adaptations by indigenous societies to the unique Amazonian environment and transformations wrought by the European conquest and colonization. More recently, the extent and impact of anthropogenic transformations of the Amazonian environment by pre-historic indigenous societies have become key issues for both social and natural scientists as they search for a sustainable equilibrium between two imperatives: improving the lives of the Amazonian people by developing its natural resources, while simultaneously taking measures to protect the environment from further devastation and conserve the region’s biodiversity and ecology.

Intense scholarly debates about the size of the Amazonian population before European contact and the extent to which pre-Columbian indigenous societies transformed the Amazonian landscape to construct more complex societies are relevant.

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to contemporary issues of conservation versus development. The debate swirls around the question of whether the soils of the Amazon, which are generally thin and weak in nutrients, could support complex societies before the arrival of the Europeans. Despite the appearance of a lush and fertile environment, nutrients in Amazonian rainforests are stored in the canopies and trunks of trees, not in the soils. At the root of the debate over the probable size of the aboriginal population before European contact is the ecological “carrying capacity” of nutrient-poor Amazonian soils. In simpler terms, how many aboriginals could the resources of the land and rivers have supported, taking into account their simple tools and technologies?

Anthropologist Betty Meggers contends that the Amazon was the last major region of the Americas to be settled - around 8,000 years ago - because it could sustain only semi-nomadic populations whose life-ways were based on hunting, fishing, forest gathering and the cultivation of manioc. Due to nutrient-poor soils upland from the rivers (terra firme), sparse game, and unreliable seasonal flooding patterns on the fertile riverbanks, Meggers argues that the Amazon Basin could not have produced an adequate reliable food supply for large concentrations of populations. According to Meggers, the thin, infertile soils of the Amazon prevented the development of complex indigenous societies because sedentary agriculture could not thrive and support hierarchical, stratified societies. Meggers concludes that semi-nomadism was actually the most appropriate adaptation of indigenous societies to the challenges posed by the Amazonian environment.

Through archeological research, Anna Roosevelt refutes Meggers, contending that the Amazon is a diverse environment with some ecological regions capable of

supporting agriculture and larger populations.\textsuperscript{29} Using carbon dating on samples from painted caves explored earlier by Alfred Wallace, Roosevelt found evidence of human settlement in the Amazon dating back some 11,000 years. She concludes that populous and complex indigenous societies with towns, paramount chiefs, sedentary agriculture, and elaborate pottery were established in some areas, notably Marajó, the huge island at the mouth of the Amazon River. Roosevelt’s arguments are supported by the chronicles of Friar Gaspar de Carvajal, who in 1542 joined Francisco Orellana’s expedition to report on the first European explorations of the Amazon River, traveling from the Andes to the Atlantic. As the expedition approached the meeting of the Amazon and Tapajós Rivers, Carvajal observed complex societies with paramount chiefs, trading relationships with other groups, and impressive war-making capacities. Having lost an eye in a ferocious battle with indigenous warriors whom he identified as embodiments of the female Amazon warriors of Greek mythology, Carvajal’s account was long dismissed by scholars as distorted and exaggerated. Recent research has added evidence to support Carvajal’s reports of complex pre-historic agricultural societies on principal riverbanks of the Amazon.

Subsequent research by a new generation of scholars, including William Ballée, Clark Erickson, William Woods and J.M. McCann supports Roosevelt’s argument with evidence that before the arrival of Europeans, indigenous Amazonians improved the fertility of Amazonian soils by building mounds and causeways and enriching soils with organic materials to develop sedentary agriculture, complex societies, and urban

\textsuperscript{29} See Anna Roosevelt, ed., \textit{Amazonian Indians from Pre-History to the Present: Anthropological Perspectives} (Tucson: University of Arizona Press, 1994).
settlements.\textsuperscript{30} Using satellite imagery, these scholars found evidence that pre-conquest indigenous groups fertilized nutrient-poor upland soils with “\textit{terra preta},” dark organic soils enriched by ash and waste products. Aboriginal societies also manipulated streams and floodplains to improve agriculture and local transportation.\textsuperscript{31} Several contemporary scholars have concluded that long before the European conquest, the Amazon was transformed through human effort to support sedentary agriculture.

Environmentalists who argue that the Amazon is a fragile environment that must be protected from human development tend to adhere to Betty Meggers’ model, while advocates of development are encouraged by research that indicates that pre-historic indigenous groups took successful measures to improve the fertility of Amazonian soils. In both cases, they simplify the analysis of Amazonian scholars in order to advocate their policy objectives.

If complex sedentary societies existed in the Amazon before contact, why were they not mentioned by missionaries who entered the region in the seventeenth century? Roosevelt contends that early European expeditions along the main Amazonian tributaries decimated sedentary indigenous groups through epidemics of contagious diseases and those groups that survived fled to remote areas and reverted to simpler, semi-nomadic patterns of life. With the arrival of European explorers and conquerors in the sixteenth century, diseases spread rapidly among people who never saw a European. Indigenous populations sickened and died of alien diseases against which they had no immunities. Smallpox, measles, plague, and influenza killed exponentially


more indigenous people than the conquerors’ swords ever did and destroyed complex societies that developed along the main rivers of the Amazon.

By the time that missionaries and colonists began to settle in the Amazon in the seventeenth century, most surviving indigenous groups had retreated from their settlements along the major rivers to less accessible hinterlands to try to escape disease and enslavement. Living in isolation near the headwaters of remote Amazonian tributaries, indigenous peoples had little choice but to adopt semi-nomadic life-ways in the hope of preserving their communities and cultures from the European onslaught. Dramatic declines in population due to disease left only decimated fragments of formerly complex indigenous societies along the main routes of the Amazon. In the seventeenth century, missionaries and colonists reported that vast rainforests were only sparsely populated with indigenous groups of hunter-gatherers.

Scholars disagree about the indigenous population before European contact, but it is clear that the demographic decline of Amazonian Indians due to alien diseases, enslavement and deculturation was sharp and devastating. William Denevan analyzed the ecological “carrying capacity” or food production sustainability of different Amazon eco-systems and concluded that the total indigenous population of the Amazon was around 6.8 million at contact.\(^\text{32}\) Drawing on accounts by missionaries, travelers and Indian Protection Service officials, John Hemming estimated a population of 3.5 million in 1500 for all of Brazil.\(^\text{33}\)


These figures are very broad estimates, but compare them to the 350,000 Indians who live in the Brazilian Amazon today, up from a nadir of 100,000 in the 1950’s, and the magnitude of the demographic disaster of European colonialism becomes apparent.\footnote{John Hemming, Die if You Must: Brazilian Indians in the Twentieth Century (London: MacMillian, 2003), 636-637.} If we assume an 80 to 90 percent decrease in the indigenous population, due to disease, war, enslavement, and deculturation, an Amazonian population of two-to three million indigenous people before European contact is a plausible estimate.

The demographic collapse of the indigenous population in the Amazon led to chronic scarcities of manual labor in the Amazon. Expeditions of Portuguese colonial authorities and colonists searched for indigenous groups in the forests and forced them to become their manual laborers. Catholic missionaries indoctrinated Indians in the teachings of Christianity and trained them for regimented manual labor but refused to allow their mission Indians to be enslaved by the colonists. Competition over access to mission Indians as laborers became the most contested issue between colonists and missionaries.

Environmental historian Jose Augusto Pádua underscores that European patterns of occupation, land settlement, and appropriation of natural resources were highly destructive to the indigenous people, but not to the Amazon’s environment.\footnote{José Augusto Pádua, “Biosfera, história e conjuntura na análise da questão Amazônica,” História, Ciências, Saúde VI, suplemento (Sept. 2000), 793.} Having found that Amazonian soils and Indian laborers were unsuitable for profitable plantation agriculture, Portuguese colonial authorities relegated the region to the status of an extreme periphery, where the economy was based on extraction by forced Indian
labor of “drogas do sertão” – renewable resources of the forests, such as spices, fruits, and nuts – destined for export to Portugal. The region was so isolated from the rest of Brazil that the Amazon was administered by a captain-general appointed directly by the Crown in Lisbon, rather than by the colonial government in Salvador da Bahia or Rio de Janeiro.

The catastrophic demographic collapse of indigenous peoples due to Old World diseases and enslavement combined with a slow but steady influx of Portuguese colonists produced a new population of acculturated Indians and mestiços, who lived along the major rivers banks and worked for the colonists. Drawing from both indigenous and Portuguese traditions and adapting them to the Amazonian environment, the rural poor of the region - fishermen, forest workers, extractive resources gatherers, boatmen, and subsistence farmers - created the hybrid “caboclo” culture of the Amazon.36

The extractive resources economy reached its peak during the Amazon rubber boom that lasted from 1850 to 1912. Faced with acute labor scarcities, the Amazonian rubber elite imported most of their labor from Northeastern Brazil. During the boom, around 300,000 migrant rubber workers entered the Amazon and were dispersed throughout the region to tap rubber under highly exploitative labor conditions. Many settled in the Amazon and formed families with local women, adding a new dimension to caboclo culture by contributing their traditions from the Northeast. On the frontier, indigenous groups were enslaved and forced to gather rubber for rubber barons, who appropriated huge estates and ruled them as their personal fiefdoms. The rubber boom

36 Although “caboclo” was once a pejorative term used by the elite, working class people of the Amazon have proudly adopted it as their own in defining their cultural identity.
unleashed a new cycle of disease and destruction on indigenous societies. Indian men were rounded up and forced to tap rubber while their wives and children were enslaved and held hostage at the rubber estates.

Thousands of rubber tappers died due to malnourishment, disease and physical abuse. Pádua argues that, like the colonial economy, the rubber boom was destructive to the Amazonian people, but not to the rainforests, which survived because most rubber extraction in Brazil was sustainable. *Hevea brasiliense* trees were renewable resources, yielding the highest quality rubber in the Amazon and producing latex for an average of fifty years. In contrast, latex extraction from Castilla or Caucho trees, a species found in western Amazonia, normally killed the trees, requiring rubber tappers to keep searching for new trees to exploit on an expanding rubber frontier.\(^{37}\)

The rubber boom peaked during the Old Republic (1889-1930), a period marked by decentralization of government, under which state governments had wide autonomy over economic development. It was an age of economic liberalism, when state and municipal governments in the Amazon supported export-driven economic growth led by the rubber elite. British, North American and Western European capitalist interests dominated the export side of the rubber economy while Amazonian elites took charge of production and internal trade. State governments displayed no interest in protecting rural workers in the face of increasing demands for their labor by the rubber elite. The rubber boom led to destruction of indigenous societies through enslavement and exploitation; rising violence on the frontier; the growth of personal fiefdoms on the frontier; influxes of migrant rubber laborers; over-dependence on

\(^{37}\) Dean, 38.
imported food; and ultimately, the collapse of the economy due to over-dependence on one export commodity.

**The Amazonian Frontier: Labor, Land and Resources**

Frederick Jackson Turner’s well-known paradigm characterized the western frontier of the United States as an unpopulated “wilderness,” with free land available to poor immigrants who could start new lives in a democratic and egalitarian society, but he ignored the fate of its Native American populations, who were subjected to forcible removal or extermination.³⁸ Turner’s frontier was a “frontier of exclusion” for indigenous peoples who had the most legitimate claims to their traditional lands.

In contrast, the Brazilian government’s vision of the Amazon as a region to be occupied, settled and incorporated into the nation is consistent with Alistair Hennessey’s concept of the “frontier of inclusion” in Latin America.³⁹ Rather than deliberately eliminating the indigenous population to make room for European colonists, Brazilian elites sought to pacify and “civilize” Indians in order to incorporate them in the lowest ranks of society as useful manual laborers. In the Amazon and elsewhere in Brazil, rural elites disdained manual labor and constructed an economic and social system under which the rural poor would have little or no choice but to work for them.

European men who colonized the Amazonian frontier usually did so without wives, for few European women were willing to endure the hardships of life in the humid tropics. European settlers formed unions with indigenous women, producing families with new ethnic identities and cultures.\textsuperscript{40} Miscegenation produced the *caboclo* culture of the Amazon, but until the mid-twentieth century, the mixed race cultures of the Brazilian hinterlands were considered “backward,” whereas the coastal cities populated by European elites remained symbols of “civilization.”

Frontier expansion was a perennial goal in colonial Brazil as missionaries and *bandeirante* slaving expeditions traveled westward, the former in search of souls, and the latter looking for gold and Indians to enslave. During the colonial era, the Portuguese Crown turned to missionaries to help occupy the Amazonian region, gather Indians into their missions, and convert them to Christianity. Catholic missions, the great majority of which were Jesuit, were established in the Amazon beginning early in the seventeenth century. With the help of the military, missionaries “descended” indigenous groups from their rainforest habitats and congregated them into mission villages. John Hemming argues that Jesuit missionaries protected indigenous people from integration into secular Portuguese society as slaves by isolating them in missions, teaching them to speak Guaraní rather than Portuguese, and controlling access to their labor by colonists.\textsuperscript{41} Using indigenous laborers, Jesuit missions developed into profitable agricultural enterprises, thereby incurring the resentment of

\textsuperscript{40} Ibid, 18-20.
the colonists, who accused the Jesuits of making huge profits by denying the colonists access to mission Indian workers.

Portuguese merchants and colonists exploited the Amazon by enslaving Indians and using their labor to fish and extract *drogas do sertão*, such as cacao, sarsaparilla, vanilla, brazil-nuts. Rivers were the only means of transportation through the Amazon basin, and Indians were forced into service as oarsmen. Although technically illegal, Indian slavery was justified on the colonial Brazilian frontier under various loopholes. In reality, the Crown’s laws prohibiting enslavement of the Indians were ignored on the frontier.

The Jesuits were expelled from the Amazon in 1759 by Portugal’s Prime Minister, the Marques of Pombal, who implemented “age of enlightenment” reforms in an attempt to centralize authority over the colonies and extract more revenue for the Crown. By removing the Jesuits, Pombal removed the principal protectors of the Indians from exploitative labor demands by the colonists. Mathias Kiemen argues that, however imperfect, nothing better than the paternalistic mission system was invented after the Jesuit expulsion.42

With the departure of the Jesuits, mission Indians gained limited autonomy over their religious practices, but were subject to heavier labor demands by the secular authorities and the colonists. Pombal imposed government-appointed Directorates to administer the former Jesuit Indian villages and attempted to integrate mission Indians into Portuguese colonial society by requiring them to work for the colonists, learn Portuguese and adopt European dress. In contrast to the Jesuit policy of isolating the

42 Kiemen, 186. Writing in the early 1950’s, Kiemen observed that it was significant that Brazil was still relying on missionaries “to civilize and Christianize the unassimilated Indians” of the Amazon.
Indians from European society, Pombal encouraged Europeans and Indians to intermarry, adopt Luso-Brazilian culture, and form a *mestiço* working class.

The Directorates’ efforts to organize Indian labor for the benefit of the colonists failed because many former mission Indians withdrew into the rainforests when they found that the new regime would not protect them against the demands of the colonists. David Cleary argues that after the Directorates were abolished in 1798, acculturated Indians gained more autonomy over their lives. In the absence of strong missionary and state authority, Indian laborers simply abandoned their jobs and temporarily disappeared if they were unhappy with their working conditions. Accounts of nineteenth-century travelers are replete with descriptions of their Indian canoe-paddlers suddenly jumping overboard, abandoning visiting dignitaries to their own resources. The post-Directorate period was a time of recession and “decompression” in the Amazon, during which the commercial economy languished, the forces of repression relaxed their grip and *caboclos*, including acculturated Indians and *mestiços*, gained greater autonomy and mobility to choose whether to work independently for their subsistence or labor for others.

John Tutino’s work on rural Mexico offers a valuable framework for analyzing the conditions of rural workers by evaluating their degrees of autonomy, mobility and security in obtaining their subsistence. Although the colonial Amazonian economy was based primarily on forced and semi-free labor, periodic economic recessions created a space for rural workers to make choices. During periods of economic

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44 Ibid.
recession, rural workers of the Amazon gained more autonomy to hunt, fish and grow their own subsistence crops as colonists relaxed their demands for their labor. Rural workers also gained greater mobility to look for better opportunities in the growing cities and towns along the river. Loss of security accompanied gains in autonomy and mobility. Indigenous workers who fled the Directorates lost their access to the food produced by their communities on the former missions. Caboclo and Indian workers who fled forest-product gathering expeditions of the colonists lost minimal levels of food security, but most were better off producing their own food.

All colonial Brazilian land technically belonged to the Portuguese king and could be acquired only through royal grants and concessions, which were usually accorded to those who were well-connected with the colonial government and had the means to acquire a labor force and make their land productive. The vast and generally infertile lands of the Amazon were considered of little or no commercial value. Anyone who was prepared to fight Indians and force them to gather forest products was able to take possession of swathes of territory for the purpose of exploiting natural resources, but they did not automatically receive legal land titles. Posses (land acquired by occupation) became the typical form of land tenure in the Amazon, where control of a labor force was more important than land ownership and extraction of natural resources was the predominant mode of production. Large landholders could legitimize their posses by requesting government concessions over lands that they had made economically productive. Holders of subsistence plots of land rarely had the
means to acquire formal land titles and remained squatters without recognized legal rights to their properties.\textsuperscript{46}

Following Brazilian independence in 1822, the system of royal grants was abolished, and \textit{posses} became the most common means of obtaining undeveloped land in the interior. In 1850, Brazil enacted a new law that provided that unowned and unused land would revert to the state, to be surveyed and sold for a profit. Emilia Viotti da Costa argues that the 1850 law was designed to keep land ownership out of the financial reach of the rural poor, forcing them to work for large landowners instead of becoming independent peasants and small producers.\textsuperscript{47}

Da Costa links the adoption of this law to the abolition of the international African slave trade to Brazil - a measure enforced by the British Navy in 1850; two decades after the Brazilian government had agreed to end it. As the world’s greatest naval power and Brazil’s most important trading and investment partner, Britain was able to impose its position against the international slave trading on an extremely reluctant Brazil.\textsuperscript{48} Without a reliable influx of new African slave labor and with the slave population of Brazil in decline, the Brazilian agricultural elite had to plan for alternatives to African slave labor. Plantation owners supported the enactment of new land tenure laws that would prevent the emergence of a large class of independent peasants and small farmers and leave the rural poor with little option but to work for large landowners.

\textsuperscript{47} Ibid, 82-85.
The land law of 1850 applied to the entire country, but frontier dynamics prevailed in the Amazon, where *posses* remained the most prevalent form of land tenure into the twentieth century. Colonists simply recruited groups of laborers, either by force or by advancing them credit for their food and supplies, and entered an area of virgin territory in order to exploit its natural resources. If colonists became successful in their enterprises, they generally found a way (*um jeito*) to regularize their land titles for a fee, through their contacts with government officials. The rural poor rarely were able to regularize their *posses*.

Emperor Pedro II’s decision to declare Brazil’s independence from Portugal in 1822 produced shockwaves in Pará, which had much closer ties to Lisbon than to Rio de Janeiro. In the colonial era, Greater Pará (including Maranhão) was governed directly by Lisbon, but after independence Brazil incorporated Greater Pará into its realm. Originally a dispute between elites over regional autonomy, the Cabanagem rebellion (1835-1841) reflected deep racial and class grievances. The rebellion pitted the Indian, Afro-Brazilian, and mixed race populations of Pará against Portuguese and Creole supporters of the recently independent imperial state of Brazil. The collapse of the Directorates system and the relaxation of state control over the poor provided a space for them to organize resistance to the Amazonian elite. The Cabanagem rebellion spread west to Amazonas, and between 20,000 and 30,000 people were killed in the Amazon before the rebellion was crushed by imperial Brazilian forces, with the aid of the British Navy. After the defeat of the rebellion, relations between the European elite and other races deteriorated. David Cleary argues that after so much loss of life, labor shortages worsened in the region, and the government implemented repressive
measures to control the labor force and curb the mobility of the non-white populations.\textsuperscript{49} The Amazonian economy languished under the effects of depopulation, repression and recession until the great rubber boom, which began in the 1850’s.

**The Amazon Rubber Boom (1850-1912)**

In 1839, while the racially-charged Cabanagem rebellion raged in the Amazon, an inventor in Massachusetts developed a process for hardening rubber that would change the course of history of the Amazon. Vulcanization, invented by Charles Goodyear, made rubber impervious to radical changes in temperature by combining sulfur and heat to harden rubber, while maintaining its elasticity. Vulcanized rubber did not crack in the winter, nor did it melt in the summer. This technology stimulated a transportation revolution, beginning with the bicycle and growing with the development of automobiles, railroads and electricity. Rubber became a vital raw material for the industrial revolution. From 1850 through 1912, steadily increasing demand for rubber by industrial Europe and the United States spurred entrepreneurs and traders to penetrate Amazonian rainforests in search of high-quality rubber trees to exploit.

The Amazon rubber boom evokes images of rubber barons living in extravagant splendor, building the fabled opera house and floating docks of Manaus and sending their laundry to be cleaned in Europe, while desperately poor rubber tappers were driven to penetrate deeper into remote rainforests to supply an insatiable international demand for rubber. Scholars have examined the Amazon rubber boom

\textsuperscript{49} Cleary, 134.
from many perspectives, including labor and internal migration patterns; frontier expansion by rubber barons; the development of *caboclo* society; enslavement of indigenous labor; foreign trade and investment; modernization of Amazonian port cities; boom and bust cycles; and rubber plantation experiments.

To place the World War II alliance for rubber in a historical context, it is useful to examine the societal and structural factors that contributed to the nineteenth-century rubber boom and bust cycle and analyze the reasons for its collapse. A comparison of the two rubber cycles reveals some important structural differences, centering on the role of the Brazilian state. Private international capital financed the nineteenth-century rubber boom and built modern infrastructure in the Amazonian port cities of Belém, Manaus and Iquitos to support the rubber trade. The Amazonian rubber elite financed and organized the recruitment of labor and managed rubber production and intra-regional trade. In contrast, the Vargas government stimulated the revival of wild rubber production in the 1940’s by organizing the recruitment of migrant rural workers and transporting them to the rubber estates and by establishing a state monopoly over the purchase of rubber. The United States government provided financing for the recruitment and transportation of migrant labor, investment loans to rubber estates, the development of transportation infrastructure networks, and public health services.

Efficient river transportation was the key to the successful export of massive quantities of rubber extracted from remote Amazonian rainforests. Without technological improvements in shipping, the Amazon would not have been able to supply sufficient quantities of rubber to support the nineteenth-century industrial and transportation revolutions. Brazil’s imperial government, led by Emperor Pedro II,
opened the Amazon to steamship navigation in 1850 and granted a 30-year concession
to the a wealthy Brazilian banker to establish a steamship line - the *Companhia de
Navigação e Commercio do Amazonas*. The introduction of steamships into the
Amazon River system significantly shortened the travel time from Belém to the deep water port of Iquitos in Peru and facilitated penetration into western frontier areas where the most productive rubber trees were found.

Brazil’s policy was to restrict navigation within the Amazon River system to the states that held territory on its riverbanks and Pedro II’s government pressured its Amazonian neighbors to adhere to the same restrictive navigation policy. Bolivia, Peru, Ecuador and Colombia balked because the Andes blocked the passage of people and goods from their Amazonian territories to the Pacific coast. Backed by the United States, the Andean countries supported open rights of navigation and commerce for all nations.50 Britain, Brazil’s hegemonic trading and investment partner throughout the nineteenth century, also pressured the emperor and his ministers to end centuries of restrictions against foreign vessels in the Amazon.

In 1867, Brazil reversed its position and Emperor Pedro II signed a decree opening navigation of the Amazon to the merchant vessels of all nations, a decision that was applauded by its trading partners and the other Amazonian countries. Antonio Loureiro argues that Brazil’s imperial government conceded on this issue in order to gain international support for its war against Paraguay (1864-1870).51

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The Amazon Basin and Major Tributaries

Source: Karl Musser, Amazon River Map, Wikipedia Commons.
Pedro II’s decision to open the Amazon to international shipping stimulated the rubber trade. Freedom of navigation in the Amazon created direct trading relationships between the great industrial powers and the Amazon in which the role of the Brazilian state was marginalized. Local elites developed closer trading and investment networks with New York and Liverpool than they had with São Paulo and Rio de Janeiro. The presence of the government in this vast frontier region remained weak, with the federal government and the military limiting their roles in the Amazon to defending Brazil’s borders and sovereignty, pacifying indigenous groups, and collecting taxes.

Despite its vastness, the Amazon region developed some characteristics of a huge enclave economy. The rubber industry produced directly for exporters from industrialized countries and depended on imports of basic supplies and luxury goods from Britain and other metropoles to which the Amazon sold its rubber. São Paulo and Rio de Janeiro were largely cut out of this lucrative trade, although they did supply food to the Amazon. Major companies from Britain, the United States and other industrialized countries contracted directly with provincial Amazonian governments to build modern infrastructure in Belém and Manaus, including the famous floating docks of Manaus, significantly improving transportation and communications in the principal ports of the Brazilian Amazon. The Brazilian government was relegated to the sidelines as rubber barons, international capitalists, maritime shipping companies and Amazonian port cities prospered from the rubber boom.

Although foreign capital controlled the international rubber trade, it did not control production or internal trade. The Amazonian rubber elite controlled the trading posts of rubber estates, but did not control the modes of production of the rubber
tappers, who determined their own work schedules and routines, normally without supervision. Rubber tappers were obliged to sell all of their production exclusively to their rubber estate owners or bosses (*seringalistas*). Rubber estates sold their production to *aviadores*, who, in turn, re-sold the rubber to foreign-owned export firms in Belém and Manaus for shipment to the factories of Britain, the United States, Germany and other industrial countries.

Amazon rubber production was based on a mercantile production and exchange system called *aviamento*, which, through a chain of credit-debt relationships, supported the extraction and transportation of latex from the forests. Barbara Weinstein argues that the Amazonian rubber economy was pre-capitalist because production remained largely under the control of the rubber tappers, with appropriation of surplus occurring when goods were exchanged at the trading posts. By requiring each rubber tapper to sell all of his production exclusively to his *seringalista*, the rubber elite exerted control over the terms of trade on the estates. Responding to surging international demand, foreign-owned export firms in Belém and Manaus advanced credit to major *aviador* (outfitter and forwarder) companies in Amazonian cities in return for future deliveries of crude rubber. *Aviadores* advanced supplies, tools, and food to petty merchants and river-boat traders (*regatões*), who sold them to rubber producers on credit.

*Seringalistas*, who either owned rubber estates or had exclusive trading rights with their rubber tappers, dotted the Amazon River system with trading posts. They claimed the right to exploit untapped areas of forest, usually without legal titles to the land they controlled. *Seringalistas* or their agents recruited rubber tappers, advancing goods and tools on credit to them in return for exclusive rights to purchase all of the

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52 Weinstein, 263.
rubber they collected. The terms of this exchange were so unfavorable to the rubber tappers that they rarely got out of debt. Seringalistas used their rubber earnings to cover their own debts for the provisions advanced by the aviador houses and received more credit in return. The rubber economy ran on a chain of credit-debt relationships, with cash rarely exchanged. Cash was scarce in the Amazonian hinterlands. At the rubber estates’ trading posts, all food and supplies were sold on credit and debited to the workers’ accounts, and all of the rubber produced by the tappers was credited to their accounts.

Establishing exclusive control over trade was more important than controlling production in the rubber estates. Many aviador firms and rubber traders controlled the trading posts of numerous rubber estates without claiming to own the land. Rubber tappers became “customers” (fregueses) of rubber traders, to whom they were obligated to sell all of their production in exchange for their basic supplies. Having established exclusive control over the terms of trade on the rubber estates, it was relatively easy to keep rubber tappers in chronic debt and under pressure to produce more rubber.

In a region where ownership of rubber estates was less important than the right to exploit their natural resources, both seringalistas and rubber tappers (seringueiros) believed they had legitimate claims to the land where they worked. As long as seringalistas contributed to the economy by producing rubber on the estates they claimed, the government did not question their land titles. As surging demand pushed the rubber frontier into more remote areas, rubber barons and traders appropriated huge tracts of forests where, in the absence of state authorities, they imposed despotic
control over the human and natural resources on their estates. Rural labor was chronically scarce in the Amazon, and particularly so after the Cabanagem Rebellion. In 1850, the population of the Brazilian Amazon was only 200,391, 165,934 of whom lived in the province of Pará. Only 34,457 people lived in the rest of the Amazon.

To supply the growing international demand for rubber, rubber producers had to recruit hundreds of thousands of laborers from outside of the Amazon, either by providing competitive wages and benefits or by enticing them to migrate and then coercing them to remain on the rubber estates. They chose the latter option.

Scholars debate whether the *aviamento* debt-credit system led to slavery, debt peonage, rural proletarianization, or autonomy for the rubber tappers. Barbara Weinstein argues that the rubber boom economy was essentially pre-capitalist in its relations of production and exchange, with the Amazonian elite controlling the marketing of the commodity, not its production. In a revisionist argument to the traditional assessment of rubber tappers as exploited victims, she contends that rubber tappers exercised considerable control over their own production, due to the rainforest environment in which they worked. Rubber trees were widely dispersed within the forests. Each individual tapper, living and working in isolation from other workers, was responsible for two or three long, elliptical trails, each connecting between 100 and 200 rubber trees in designated swathes of dense rainforest. *Mateiros* - indigenous and *caboclo* woodsmen familiar with the biodiversity of the rainforests - carved out rubber trails (*estradas*) with their machetes. Individual rubber tappers set out on their

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53 Ibid, 27. In 1850, the state of Pará encompassed the entire eastern Amazon (including today’s Amapá and Tocantins), and Amazonas included most of the western Brazilian Amazon. Brazil annexed the former Bolivian territory of Acre in 1903.

54 Ibid, 14-18.
rubber trails hours before dawn, carefully slashing the barks of Hevea trees with machetes or knives and attaching cups to the trunks to collect the flowing latex. In the late afternoon, rubber tappers made a second round to collect the latex. They returned to their huts to smoke the latex over burning palm nuts until it coagulated into large black balls (pelles) of crude rubber, a technique invented by the Indians.\footnote{Ibid, 16.} The wide dispersal of individual laborers permitted rubber tappers a good deal of autonomy in production, given that a surveillance system to control and regiment widely-dispersed laborers was too expensive to maintain.

Latex could be extracted productively only during the drier “summer” season, leaving five or six months for subsistence agriculture, fishing, and hunting during the “winter” season of heavy rains. Weinstein argues that in Pará, rubber workers had the sufficient mobility to evade unacceptable labor demands by moving to another rubber estate or disappearing into an urban area. On the other hand, Weinstein emphasizes that resistance was rare and individual, given that the dispersal of individual workers in the forests precluded community life and made collective action against exploitation very difficult.

One of Weinstein’s most interesting arguments is that after the collapse of the boom, rubber traders and tappers colluded to frustrate foreign and local pressures to establish a more “rational” rubber economy. In contrast to scholars who viewed rubber tappers as victims of debt peonage or forced labor, Weinstein contends that they developed successful strategies to resist proletarianization, in particular, efforts by foreign investors to reduce their autonomy.\footnote{Weinstein, 165-182.} At the turn of the twentieth century,
spurred by increasing demand for rubber tires, several European rubber companies
negotiated to acquire huge rubber estates, with the intention of bringing in professional
managers with experience in African and Asian plantations to supervise rubber
laborers and make them more efficient. Weinstein found that tappers successfully
conspired with aviadores and municipal authorities to deny European rubber
companies the labor forces they required. Amazonian rubber workers preferred their
autonomy in their isolated swaths of rainforest to working in a more regimented
environment, even when their food security was assured by their employers. Later, the
Ford Plantations encountered similar resistance when the company tried to recruit a
large labor force in Pará. Weinstein’s study focuses on the state of Pará -- the most
developed region of the Amazon -- where there was strong competition for labor, an
ample food supply, good transportation networks, and an active state government. Her
conclusions about the relative autonomy of Brazilian rubber tappers reflect the labor
conditions of the caboclos living along the main trade routes of the Amazon River
system rather than those of indigenous societies or migrant workers. Caboclos knew
how to survive in the Amazonian environment and were better equipped to negotiate
the demands of seringalistas than were new migrant workers, who were dependent on
their estates’ trading posts for their food.

In remote areas of Pará, however, Weinstein observes that rubber barons who
acquired estates located beyond the rapids of the Tapajós and Xingú Rivers, exerted
greater control over their labor forces by building portage roads around the rapids and
patrolling the only safe passages downstream.\(^57\) If rubber tappers could not prove that
they had settled their accounts when stopped at checkpoints, they were forced to return

\(^{57}\) Ibid, 184-191.
to the estates. By controlling downriver transportation choke points, rubber elites were able to use debt obligations to curb the mobility of rubber tappers. A key variable in assessing working conditions was the availability of ample supplies of inexpensive food. Most Amazonian soils are unsuitable for commercial agriculture. Pará developed agricultural colonies near the coast and on the island of Marajó, and supplied food within the state and to Manaus through river transportation networks. In Pará, rubber tappers were generally better nourished than in the western or central Amazon, where they had to rely on expensive, but low-quality food imports and whatever they could hunt or fish. The availability of reliable food supplies along the main river channels in Pará permitted rural workers to become more autonomous and mobile because they did not depend on their rubber estates for their daily rations and very survival.

Little food was grown in the western Amazon, leaving the rubber estates dependent on imported food supplies that were transported over such long distances that the food sometime spoiled. Thousands of migrant laborers were transported to the rainforests of the western Amazon, where rubber trees yielding the highest quality rubber (Acre-fina) were found. In a study of the frontier territory of Acre, where large rubber estates employed hundreds of migrant laborers from the Northeast, Keith Bakx maintains that the seringalistas controlled both production and exchange. Using a Marxian paradigm, Bakx concludes that labor was doubly alienated from the means of production because both the forested land and the labor process were in the effective control of the seringalistas. Rubber estates employed armed monitors, who controlled methods of production, ensured that rubber tappers delivered their rubber

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exclusively to their estate’s trading post, and prevented them from fleeing without settling their debts.

To ensure that tappers spent all their waking hours producing rubber, *seringalistas* prohibited their laborers from growing subsistence crops, forcing them to depend on over-priced imported food from their estates’ trading posts. Ironically, most migrant rubber tappers had been cattle-raisers and subsistence farmers in the Northeast, where, except in years of drought, they had access to better food than they consumed in the western Amazon. These conditions were characteristic of large frontier rubber estates in isolated areas where rubber barons were able to establish their own fiefdoms.

In contrast, anthropologist Emilio Moran argues that the reciprocal patron-client relationship between *seringalistas* and rubber tappers was the basis of the labor economy of the rubber boom.59 Their dependency relationship was reinforced by the practice of *compadrio*, through which the *seringalista* became the godfather of his rubber tappers’ children. The *seringalista* expected his rubber tappers to collect rubber exclusively for him, buy supplies from him, and support his political patrons, while tappers expected their *seringalista* to give them credit during hard times, take an interest in the welfare of their families, and intercede for them with third parties. The reciprocal relationship of *compadrio* is the one of the few examples encountered of a “moral economy” in the patron-client relations between *seringalistas* and *seringueiros*. Deprived of strong community support and solidarity because of the isolation in which they lived and worked, rubber tappers depended on their bosses for patronage and protection.

Most scholars describe the typical labor system of the Amazon rubber economy as debt peonage. In a study of a small town in Pará, North American anthropologist Charles Wagley, who worked as a public health adviser in the Amazon during the

Battle for Rubber, argues that the unfavorable terms of exchange established at the trading posts by the *seringalistas* doomed most rubber tappers to perpetual indebtedness. Wagley concludes that debt-peonage system was especially brutal for the approximately 300,000 thousand desperately poor workers recruited at the height of the boom from the drought-stricken Northeast. Recruited with false promises from agents of the rubber barons, migrants arrived at rubber estates burdened with large debts for their passage as well as food, medicine, tools, and other equipment. As novices in the Amazonian environment, migrant workers were more vulnerable to exploitation than native Amazonians. Families of migrant workers rarely accompanied them. Whereas *caboclo* and Indian wives of native Amazonian rubber workers would take charge of planting subsistence crops around their small forest dwellings, single migrant workers were dependent on the rubber trading posts for food and provisions. Even the services of prostitutes brought to the trading posts were charged to the rubber tappers’ accounts!

Normally, the rubber tapping season in the Amazon lasted for only about six months and during the “winter” season, rubber tappers could work as subsistence farmers or brazil-nut gatherers. Amazonian rural workers benefited from these slack periods because they could devote more time to farming and hunting to feed their families and perhaps even sell some surplus to local markets. Eric Ross critiques the rubber boom economy for requiring tappers to devote most of their time to latex extraction, causing a decline in subsistence agriculture and hindering the development of an Amazonian peasant class.

Viewing extractive economies as destructive of communal life and agricultural economies, Ross observes that the isolated nuclear family, rather than the community, became the typical unit of production of the tropical forest ecosystem. The nuclear

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family was reduced to relying on the cultivation of manioc, supplemented by
extraction, for subsistence. He describes the Amazon peasantry as “an exploited and
non-autonomous class.” Roberto Santos argues that as labor exploitation intensified
to meet increasing rubber demand, women replaced men as subsistence food
producers, causing agriculture to decline. Women were valued as subsistence
farmers, but a scarcity of women in the rural Amazon left many rubber tappers without
female partners.

As international demand for rubber surged in the 1890’s and first decade of the
twentieth century, rubber barons acquired huge estates on the frontier and ran them as
personal fiefdoms. Without a supply of caboclo labor, rubber barons coerced
indigenous groups to provide workers and hired armed guards to control them and
prevent them from escaping. In the absence of the rule of law or government
authority, indigenous groups that refused to produce rubber were enslaved and
terrorized. Indian slavery existed mainly in remote frontier areas of the western
Amazon, where both government authority and respect for the rule of law were absent.

British scholar John Hemming concludes that although the brunt of rubber
tapping labor fell on the acculturated Indians and mestizos of the Amazon, the most
terrible abuses were committed against “wild” Indians tribes in frontier areas beyond
the reach of governments or Catholic missions. Based primarily on accounts of
Amazon explorers and travelers, Hemming portrays Indians as victims of the rubber
boom, enslaved, exposed to fatal European diseases, their women sexually assaulted
and their children sold as servants, with survivors experiencing deculturation, dispersal
from their lands, and loss of their ethnic identities.

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Examining deculturation in the Brazilian Amazon, Brazilian ethnographer Adélia Engracia de Oliveira\textsuperscript{64} argues that in addition to exploiting Indian men as woodsmen and rubber tappers, rubber estate owners deliberately destroyed Indian families. Dependent on Indian men for their knowledge of the forests, rubber bosses forced them to search for rubber in areas far from their settlements, sequestering their women and children to ensure that their men returned. Women hostages were sexually exploited and their children turned into servants of the rubber bosses, tearing indigenous families apart.

The migration into the Amazon of more than 300,000 people during the late rubber boom, between 1872 and 1910, accelerated the decline of indigenous societies and altered the demographic composition of the region. As the population of “civilized” males grew, migrant rubber workers entered into consensual and coercive unions with Indian women, reducing the number of indigenous women available as partners for indigenous men. Children of such unions became part of the growing mixed-race caboclo population of the rural Amazon, with few if any ties to their mothers’ indigenous groups. De Oliveira highlights several devastating consequences for traditional indigenous societies: marriage rates declined, important ceremonies to maintain tribal solidarity could not be held, and use of traditional indigenous birth control techniques aggravated the demographic disaster. Entire linguistic and cultural groups disappeared as their descendants were integrated into caboclo culture and became rural workers. De Oliveira reflects an indigenist perspective, as opposed to the views of Brazil’s most influential sociologist, Gilberto Freyre, who extolled miscegenation, integration and assimilation as social factors that created Brazil’s unique society and “racial democracy” from the merger of indigenous African and

European cultures. Freyre chose to ignore that miscegenation between European men and indigenous or Afro-Brazilian women was all too often based on rape.

Abusive labor conditions worsened as rubber frontier moved west during the peak boom period between 1890 and 1912. The most horrifying episodes of enslavement of indigenous groups to tap rubber occurred in an extreme periphery of the Amazonian frontier between the Putumayo and Caquetá Rivers, a region contested by Peru, Colombia, Ecuador and Brazil. In an international scandal, employees of the Peruvian Amazon Rubber Company were accused of the torture and murder of tens of thousands of “wild” Indians whom they rounded up and forced to tap rubber. Owned by a notorious Peruvian rubber baron, Julio Cesar Arana, the company’s huge rubber concession was his personal fiefdom in a region where no government had established its authority. Using colonial discourse, the rubber company claimed the “right to conquer” indigenous groups that would not accept goods in return for work. Arana’s men forced “wild” indigenous groups to work as slave laborers, advancing them products they did not want in order to maintain the legal fiction that they needed to work off their debts. Enslaved indigenous rubber tappers were beaten, mutilated and sometimes killed if they did not deliver their quotas of rubber. Company employees proceeded to commit orgies of sadistic atrocities and executions, destroying the very Indians they needed as laborers, although labor was scarce and rubber prices booming. Allegations of atrocities were investigated by British diplomat Roger Casement, who had exposed similar abuses of rubber workers in the Belgian Congo.

67 The abuse and enslavement endured by indigenous groups in the Putumayo region were similar to atrocities that occurred in the Belgian Congo during the peak of the international rubber boom. Faced with the unwillingness of African workers to tap rubber vines, Belgian colonial authorities established production quotas and forced villages to send their men to extract rubber by holding their women and
Despite using outright terror and enslavement to subjugate their rubber tappers, the company insisted on forcing advances of useless goods on Indians in order to justify their labor as “debt peonage.” The practice was reminiscent of repartimiento, a late colonial measure implemented by colonial authorities to force indigenous communities to accept goods on credit for which they had to pay with their labor. Arana’s insistence on the formality of forcing the company’s Indians slaves to accept goods on credit was an effort to safeguard his reputation as a member of the Peruvian elite and a “respectable” international businessman in a world in which slavery was illegal. Arana and other rubber barons were socially ambitious parvenus who ruthlessly exploited their laborers on the Amazonian frontier in order to acquire sufficient wealth to become accepted in the drawing rooms of urban elites.

Michael Taussig argues that by demonizing the Indians, supposedly “civilized” men justified using barbaric terror and torture, acting out the savagery that they imagined was practiced by indigenous groups in the rainforests. Taking issue with Taussig, Michael Stanfield concludes that the number of victims of the atrocities was probably exaggerated, reflecting the political interests of countries contesting the Putumayo frontier. Colombia and Ecuador were only too eager to publicize a scandal involving their frontier rival, Peru, while Brazilians were relieved that the Putumayo scandal overshadowed their own excesses during the boom.

Stanfield’s examination of the role of partially acculturated Indian caciques as brokers, cultural translators, slave traders and mediators between the rubber company and their Indian laborers reveals how a relatively small number of rubber company employees were able to create a slave labor system in a remote rainforest environment,


68 Taussig, 69-70.

69 See Stanfield, 205-212.
torturing and killing up to 30,000 Indians. Stanfield’s examination of the culture of the Putumayo indigenous societies - their hierarchies, their kinship structure, raids on other tribes, enslavement and barter of captives for goods – provides insights on how Arana’s company was able to exploit hostilities among Indian groups to acquire slave workers.

The collapse of the rubber boom in 1912 was a blessing for indigenous groups, providing a space for them to resume their traditional patterns of life on the frontier. Indian rubber tappers who lost contact with their ethnic groups integrated into caboclo culture, marrying outside their indigenous group and becoming part of the rural Amazonian labor pool.

**Indians and the Brazilian State on the Amazonian Rubber Frontier**

During the first decade of the twentieth century, the Brazilian military began to focus attention on occupying and integrating frontier territories in the Amazon and Center-West in order to secure Brazil’s sovereignty over its sparsely populated western borderlands. The Paraguayan War (1864-1870) and Brazil’s annexation of Acre in 1903 underscored the necessity of developing a rapid communications system between the western frontier and the Brazilian high command in Rio de Janeiro. Influenced by Positivist thinking about bringing “civilization” to the frontier through measures to foster “order and progress,” the government launched an effort in 1907 to connect the Amazonian hinterland with the rest of the Brazil. President Afonso Pena instructed Colonel Cândido Mariano de Silva Rondon, a senior military engineer, to build a telegraph line from Cuiabá in Mato Grosso to Pôrto Velho in the Guaporé territory (now Rondônia) near the border with Bolivia, a total distance of about 1,000 miles. Rondon was also ordered to survey and map the region, build roads, contact local indigenous groups and prepare them for gradual integration into Brazilian society.
Rondon and his hundreds of military conscripts and civilian workers spent eight years on the telegraph project.\textsuperscript{70}

The government’s longer-term goals in building communications and road infrastructure were to facilitate the pacification of hostile indigenous groups and pave the way for the advent of “civilization” through colonization and economic development. Revisionist historian Todd Diacon contends that Rondon’s achievements were overrated, given that the telegraph system was under-utilized and deteriorated quickly as rainforests reclaimed the telegraph paths cleared by his workers.\textsuperscript{71} Nevertheless, direct involvement of the Brazilian state in building communications and transportation infrastructure on the Amazonian frontier was an important precedent for future state-led projects to integrate the region into the nation, including the “March to the West” initiated by Getúlio Vargas in 1940.

Rondon, whose grandmother was a Bororó Indian, initiated a non-violent approach to contacting, attracting and pacifying indigenous groups. Integration remained the ultimate goal, but his humanitarian methods were in stark contrast to the atrocities committed by frontier rubber barons as they “rounded-up” and forced indigenous men to tap rubber, taking their women and children as hostages. Rondon’s work led to the creation of the Indian Protection Service (SPI) in 1910, during the peak of the rubber boom when enslavement of frontier Indians had become an increasingly common practice. Rondon agreed to lead the agency on the understanding that he would be free to implement his non-violent, gradualist approach by encouraging indigenous groups to assimilate slowly, while respecting their communal societies, languages, religions and cultural practices. Rejecting all violence against Indians, even in self-defense, he instructed SPI personnel to “die if you must, but never kill!”

\textsuperscript{70} Rondon’s work was interrupted for several months by President Theodore Roosevelt’s visit to Brazil in 1913, when Rondon was tapped to lead an expedition with Roosevelt to explore the River of Doubt, later named the Rio Roosevelt after the expedition established that it was a tributary of the Madeira River.

Rondon’s insistence that Indians should not be indoctrinated or pressured to become Christians earned him the wrath of missionaries. Through the SPI, the Brazilian state attempted to replace Catholic missionaries as the protector of the Indians. Both church and state considered the indigenous people to be incapable of managing their own affairs, treating them as minors who needed tutelage to prepare them for integration into “civilized” Brazilian society.

Rondon’s work with indigenous societies is the subject of intense scholarly debate. John Hemming argues that his non-violent, gradualist approach bought indigenous groups valuable time when they were on the verge of extinction.\textsuperscript{72} Alcida Rita Ramos criticizes Rondon’s ideas as hypocritical because his long-term goal was to undermine indigenous cultures by turning Indians into acculturated laborers.\textsuperscript{73} Drawing upon Darcy Ribeiro’s demographic studies of Brazil’s indigenous groups, Shelton Davis concludes that “in almost every area of Brazil where the SPI functioned, Indians were wiped out by disease or became marginalized ethnic populations on minuscule parcels of land.”\textsuperscript{74}

Given the realities of the Amazon rubber frontier, however, where rubber barons justified outright enslavement of Indians if they refused to work for them for payment in goods, the options of SPI protection offered indigenous groups a greater chance of physical and cultural survival. Pressure by Brazilian colonists on the Amazonian frontier was inevitable during boom cycles. Rondon’s non-violent methods of contacting indigenous groups were progressive and humanitarian for his time. Had the government appointed a hard-line Indian fighter to establish and lead the SPI, even fewer Amazonian indigenous groups would have survived the onslaughts

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\textsuperscript{73} See Alcida Rita Ramos, \textit{Indigenism: Ethnic Politics in Brazil} (Madison: University of Wisconsin Press, 1998).
\end{flushright}
Boom and Bust Cycles in a Periphery

The Amazon rubber boom was based on an unpredictable extractive system of production that could not guarantee the industrial world a constant, predictable flow of abundant supplies at low prices. Confronted with surging requirements for rubber, industrialists in Europe and the United States worried that their output would be limited by inadequate supplies and rising prices from the Amazonian wild rubber economy. To meet the requirements of industrial capitalists for ample and predictable supplies at lower cost, botanists recommended the development of rubber plantations.

Consequently, Britain, the greatest imperial power of the nineteenth-century, decided to take the risk of investing in the transfer of Amazonian rubber seedlings from their native habitat to plantations in its Southeast Asian colonies. The British government’s botanical research center at Kew Gardens contracted with Henry Wickham, a British adventurer and naturalist living on the Tapajós River in the Amazon, to collect and deliver tens of thousands of Hevea brasiliensis seedlings to London, a task he accomplished in 1876 in a notorious smuggling episode that still rankles in Brazilian society. Kew Gardens sent the seedlings to British colonies in Southeast Asia for the purpose of establishing rubber plantations. 75

This late nineteenth-century example of the “Columbian exchange” ultimately led to the collapse of the Amazon rubber boom in 1912, at which point Asian plantations had become sufficiently productive to satisfy world demand for rubber at lower prices than the Amazon could offer. 76 The disastrous consequences of Wickham’s exploit for the Amazonian rubber economy provoked skepticism on the

part of Brazilian officials and Amazonian elites about the value of international scientific cooperation in the Amazon.

During the heyday of nineteenth-century British imperialism, explorer-naturalists were enlisted by their government to gather intelligence about natural resources located in the tropics and other peripheral regions. Henry Wickham was one of several naturalists working in South America whom the British government commissioned to collect specimens that might be useful to the British Empire. Although the government left it to the naturalists’ discretion to find ways to transfer their collections of biodiversity to Britain, it was clear that if they could not do so legally, they would have to resort to smuggling.

In 1859, the British government commissioned botanist Richard Spruce to collect the seeds and plants of the *cinchona* tree, the bark of which contains alkaloids that form the basis of quinine, the only medicine that was effective in treating the symptoms of malaria. The transfer of *cinchona* plants to British and Dutch colonies in Southeast Asia and Ceylon proved to be a boost to European imperialism in the humid tropics because taking quinine significantly reduced fatalities from malaria, a disease that often killed newcomers from temperate climates.

It took over 35 years from the transfer of the rubber seedlings to the Kew Gardens nursery in London for colonial plantations in Malaya, Ceylon and (Dutch) Indonesia to experiment and eventually produce huge quantities of high quality rubber to the international market at lower prices than the Amazon market could offer. During those 35 years, Amazonian rubber barons, confident that their supply of wild rubber would never be exhausted or priced out of the market, ruthlessly exploited their labor forces of rubber tappers, while failing to modernize archaic modes of production and trade. Those who did not squander their money on ostentatious living used their

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profits to invest in the infrastructure of the most important Amazonian port cities, Belém and Manaus, rather than diversifying the productive base of the economy. After the collapse of the rubber boom, foreign traders and investors left the Amazon and the local elite - who depended on them for export markets and credit - sank into the doldrums of an economic depression.

Examining the reasons that the boom did not lead to sustained economic development, Bradford Barham and Oliver Coomes contend that the principal factor was the decision by Amazonian state governments and the private sector to invest the accumulated surplus in urban infrastructure rather than agriculture and manufacturing. Barham and Coomes argue that as rubber demand and prices soared, the boom depressed the other tradable sectors - agriculture and manufacturing - while boosting private and public investment in non-tradable sectors, including transportation, real estate, construction and services to support urban elites. Instead of encouraging investment in tradable sectors to diversify the economy, state governments supported the influential rubber elite by investing in infrastructure in the cities of Belém and Manaus. When international rubber prices collapsed, the value of investments in the non-tradable sectors did so as well, sinking the region’s economy into a depression. During the years between the collapse of the rubber boom in 1912 and World War II, urban infrastructure financed by the boom deteriorated because the Amazonian economy did not generate sufficient income necessary to maintain it.

Brazil’s federal government played a relatively passive role in the Amazonian economy during the first rubber boom and bust cycle. Comparing levels of Brazilian state intervention in the economies of São Paulo and the Amazon, Brazilian economist Roberto Santos concluded that the Amazonian economy suffered from the laissez-faire

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attitude of the Brazilian federal government.\textsuperscript{79} During the Old Republic (1889-1930), São Paulo’s coffee exporting interests drove state economic policies, while the rubber export economy - second only to coffee in foreign exchange earnings - was neglected by the government.\textsuperscript{80} Except for collecting export and import taxes, opening river navigation to international shipping, and providing diplomatic support for the occupation by Brazilian rubber producers of contested frontier territories (Acre and Guaporé), the federal government played a relatively minor role in the Amazon rubber boom. Although taxes and foreign exchange earnings generated from rubber exports contributed significantly to the national budget as well as to the industrialization of southeastern Brazil, the Old Republic gave low priority to the Amazon, concentrating instead on the “café com leite” (coffee and cattle) economies of São Paulo and Minas Gerais.\textsuperscript{81}

The Amazon was transformed from an economic backwater to a boom economy in the late nineteenth and early twentieth centuries because of a convergence of factors: surging global demand for rubber; capital influxes from industrialized countries; migrations of rural laborers into the Amazon; and the modernization of river transportation and urban infrastructure.\textsuperscript{82} With all of these factors of production in place, rubber exports surged, but at the price of over-dependence on fluctuating demand from overseas markets. Deliberate exclusion of rural workers from the financial gains of the boom produced a regional society composed of two classes: elite concentrated in Amazonian cities with excess money to burn on expensive imports, and rural workers who were too poor and indebted to buy more than the minimum needed to survive. The rubber economy lurched between conspicuous consumption

\textsuperscript{80} Ibid, 305.
\textsuperscript{81} Ibid, 309-310.
\textsuperscript{82} Ibid, 310-312.
and misery, and it was observed that for every ton of rubber produced during the boom, a human life was lost.\textsuperscript{83} The rubber boom never produced a strong internal market in the Amazon because the purchasing power of the working class was extremely limited.\textsuperscript{84} Excessive specialization in one exported raw material, coupled with dependence on expensive imports of food and manufactured products, made the Amazonian economy vulnerable to boom and bust cycles.

\textbf{Urban Development and Conspicuous Consumption}

International investment in modern infrastructure transformed Manaus and Belém from isolated, sleepy ports to hubs of international commerce and sophisticated centers of urban life, where local elites spent their rubber boom earnings. Manaus, located almost 1,000 miles upriver from the mouth of the Amazon, developed from an obscure trading village of 5,000 people in 1849 into an exuberant metropolis of 50,000 by 1910.\textsuperscript{85} Bradford Burns offers a portrait of Manaus in 1910 when the rubber boom was at its peak.\textsuperscript{86} The city boasted electricity, telephone service, streetcars, modern sanitation services, and beautiful public buildings. Floating docks built by British investment could accommodate ocean-liners. The Manaus elite read two local newspapers and patronized several bookstores where foreign newspapers and books were available. The Amazonas Theater, a magnificent opera house with seating for 1,600 people, opened in 1896, having been financed entirely by rubber money, and constructed and appointed exclusively with luxurious materials and decorative objects.

\begin{footnotesize}
\begin{enumerate}
\item Ibid. 307-308.
\item Ibid, 308-310.
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imported from Europe. Due to the isolation of Manaus, however, performances were few and far between. Manaus became an entertainment center, offering theater companies, movies, variety shows, sports clubs, horse races, expensive French restaurants and numerous bordellos. Prices of goods and services in Manaus were about four times higher than in New York City.

The rubber boom also financed higher education. The Free University of Manaus was inaugurated in 1910, and was the first in Brazil to admit women, offering degrees in science and letters, engineering, pharmacy, dentistry and law. Women from the Amazonian elite and middle class began to enter the professions.

The determination of the Manaus rubber elite to build a world class metropolis was spurred by competition with the most venerable port city of the Amazon and the capital of the Brazilian Amazon -- Belém. Strategically situated at the mouth of the Amazon River, Belém continued to dominate the commercial and cultural life of the Amazon region, even as the focus of rubber production moved westward to Amazonas. By 1910, Belém’s population reached 250,000 and its busy and thriving port rivaled Rio de Janeiro and Santos. Belém used its rubber income to finance modern infrastructure, including a telephone service, piped water, electric streetlights a trolley system, and a great theatre.

The most important investment made by the government of Pará was to finance a public health campaign in 1910-11 by Dr. Oswaldo Cruz, Brazil’s eminent public health crusader, to rid the great port city of yellow fever. Brazil already had an impressive record in public health due in large part to the work of Dr. Cruz, who, at the turn of the twentieth century led several successful campaigns to rid Brazil’s capital and principal Atlantic port cities of pestilential plagues of tropical diseases. Brazil’s early public health campaigns focused on tropical diseases that attacked “virgin”

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87For the Manaus-Belém rivalry, see Weinstein, 192-212.
populations of foreigners and migrants from temperate zones who lacked immunities to endemic tropical diseases. Sanitation campaigns were linked to major urban renewal projects designed to make its capital and port cities habitable for foreign business elites from “civilized” Western European and North American cities.\textsuperscript{88}

Dr. Cruz successfully implemented sanitation programs in Belém in 1910 and 1911 to destroy the breeding sites of the \textit{Aedes aegypti} mosquitoes that were vectors of yellow fever. The program was financed by the state of Pará, rather than the federal government. Under the decentralized Old Republic, state governments were responsible for public health programs. The successful campaign against yellow fever made Belém a safer place for international businessmen and their families, as well as migrant workers from other regions of Brazil. Denying the reality that yellow fever had reached Manaus, the Amazonas legislature rejected a proposal to fund a similar public health campaign, anticipating that a decline in international rubber prices would leave Amazonas without the financial resources to pay for such a campaign.

The Governor of Pará also persuaded Cruz to investigate the causes of high mortality rates among foreign railroad workers in the frontier territory of Acre. When Brazil annexed the Bolivian territory of Acre in 1903, Brazil accepted a treaty obligation to facilitate Bolivia’s access to the Atlantic Ocean through the Amazon River by completing the Madeira-Mamoré railway around the inaccessible headwaters of the Madeira River. In 1907, Brazil contracted an American firm, the Madeira-Mamoré Railway Company, which, in partnership with the Port of Pará, imported 22,000 foreign workers, mainly from Europe, India and the West Indies.\textsuperscript{89} The company had difficulties in recruiting and retaining foreign labor, due to very high mortality rates from malaria and other diseases. Cruz traveled to the region in 1911,

making recommendations for sanitary measures which, tragically, were too late to save thousands of workers who died trying to build the railroad.

Focusing on endemic tropical diseases against which most foreigners and migrant workers had no immunities, Cruz’s public health campaigns were designed to remove obstacles to improving Brazil’s export-driven economy. Scholars criticize Cruz and government health authorities for ignoring the basic health needs of the local poor, who suffered more from tuberculosis and other diseases attributable to malnutrition and over-crowded, unsanitary housing than from yellow fever.90

Barham and Coomes conclude that the nineteenth-century rubber boom left strong legacies that shaped development paradigms in the Amazon for many decades. Labor scarcities and transportation costs in the vast Amazonian region contributed to comparatively high costs of rural labor, as compared with Southeast Asia, but rubber tappers lived in poverty. Land ownership was based on possession, rather than formal land titles. Rubber elites claimed large estates by simply occupying unclaimed forested land and recruiting a labor force to exploit its natural resources. Labor scarcities, the dispersal of rubber estates throughout a vast region, and high transportation costs made Amazonian rubber more expensive than Southeast Asian plantation rubber.

The Brazilian state profited from the rubber boom, not only through taxes on trade, but also through the expansion of the rubber frontier to the Bolivian territory of Acre. Brazil’s annexation of Acre from Bolivia in 1903 was based on claims by Brazilian settlers - mostly rubber traders and tappers - that they had occupied,

colonized and developed a frontier territory over which Bolivia had legal sovereignty, but did not actually control. Concerned that frontier borders could shift again if Brazil did not take measures to occupy and colonize Acre, the Brazilian government encouraged the migration of rubber tappers to Acre during World War II as a means to increase the population of Brazilian nationals in the territory.

After the boom’s collapse, *seringalistas* abandoned the rubber business while *caboclo* rubber tappers turned to subsistence agriculture and fishing as their principal occupations. A large influx of migrant rubber tappers drifted into cities, looking for work, while others undertook the arduous journey back to their original homes in the Northeast. Indigent rubber tappers became part of the marginalized urban population, working in the informal economy. The population of Manaus more than doubled between 1910 and 1940, increasing from 50,000 to 106,400. As urban populations increased, the supply of rural labor in the Amazonian hinterlands declined dramatically.

**A Plantation Economy in the Amazon?**

During the period between the collapse of the rubber boom and Brazil’s entry into World War II, Brazilian agricultural research scientists advocated transforming the extractive industry into a plantation economy that could compete with Southeast Asian rubber. Brazilian plant scientists and collaborated with progressive members of the rubber elite to establish experimental plantations but their efforts to cultivate commercial quantities of rubber were unsuccessful.

The interest of the Ford Motor Company in a large-scale investment to

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establish rubber plantations in the Amazon generated hope for a recovery from the depression caused by the collapse. In an effort to obtain a more reliable rubber supply and circumvent a British-dominated price cartel in Southeast Asia, the Ford Motor Company in 1927 obtained a one-million hectare concession from the state government of Pará to establish rubber plantations on the Tapajós River near Santarém, around 600 miles up the Amazon river. The investment was designed to implement the company’s strategy of producing a reliable supply of crude rubber from the Amazon to supply its manufacturing needs, vertically integrating its motor vehicle business. The Ford Motor Company required a huge supply of rubber and had the combination of money, management expertise, and technology needed to execute such an ambitious project. Everything pointed to a likely success, but the greatest industrialist of his time was defeated in the Amazon by a fungus.

Warren Dean offers a scientific and environmental perspective on the failure of Amazonian rubber cultivation, caused by epidemics of South American Leaf Blight, a fungus that spread rapidly through the canopies of rubber trees planted in rows. In the rainforests, wild rubber trees are dispersed among diverse species of trees in the forest, reducing the risk of epidemic infections. Scattered distribution of wild rubber trees among other rainforest vegetation blocks the spread of the leaf blight from one stand of rubber trees to another.

The South American Leaf Blight did not spread to Southeast Asia when Amazonian rubber seedlings were planted in the British colonies of Malaya and Ceylon. Nor were they attacked by the fungus in Firestone’s rubber plantations in Liberia. Dean’s research reveals that in the tropics, exotic species tend to flourish when planted in a new environment far from the parasites and pests of their native habitats. That was certainly the case with rubber plantations, which flourished in

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92 Dean, 167.
Asia and Africa, but repeatedly failed in the Amazon.

A few techniques were effective in the Amazon, such as top grafting to control the spread of the leaf blight, but they were so labor intensive and costly that, in comparison, extraction was a cheaper mode of producing rubber.\textsuperscript{93} Dean concludes that labor shortages on the rubber plantations were not the key problem; the challenge was to develop better hybrids, clones and cost-efficient scientific techniques to prevent fungus epidemics in Amazonian plantations while maintaining high yields of latex.\textsuperscript{94}

Along with the fungus, the Ford plantations had to confront labor shortages. The collapse of the rubber boom in 1912 stimulated a large exodus of migrant workers who returned to the Northeast. By the late 1920’s, according to Dean, there were only around 250,000 adult men living in the rural areas of the Brazilian Amazon.\textsuperscript{95} Those who worked in subsistence agriculture resisted efforts by plantation managers to recruit them. They valued their autonomy, and regimented plantation labor was still associated with memories of African slavery in Brazil, which was abolished only in 1888.\textsuperscript{96} With employers competing for their labor, rural workers enjoyed a good deal of autonomy and mobility, as long as they could provide for their basic subsistence.

Rubber tappers, however poor and indebted, were accustomed to their autonomy in the rainforests, including a break of several months during the rainy “winter” season when they had time to devote their energies to subsistence farming and nut-gathering. Despite burdens of chronic indebtedness, rubber and other extractive industries offered more autonomy to rural workers than did plantation work. Rural workers were reluctant to give up their autonomy and mobility for a life of

\textsuperscript{93} Top-grafting was a new technique through which a disease-resistant strain of Hevea was grafted high up on the trunk of a productive latex-yielding tree. After the graft bonded, the old crown was cut off, and the canopy was covered with blight- and bug-resistant leaves, preventing epidemics from spreading.

\textsuperscript{94} Dean, 163.

\textsuperscript{95} Ibid, 82.

\textsuperscript{96} During the nineteenth-century rubber boom, African slaves were considered too expensive and valuable to be used as rubber tappers, compared to the costs of debt peons who were charged for the costs of their recruitment, transportation, food and supplies. Furthermore, the risk of flight by slaves working unsupervised in isolated rainforests would have been very high.
regimentation, even for the security of excellent wages and social benefits on the Ford plantations.

Ford’s efforts to recruit labor in the 1920s and 1930s conflicted with the interests of the mercantilist *aviamento* trading system. A successful rubber plantation economy would have put local *aviadores* out of business. *Aviadores*, supported by their municipal governments, actively discouraged rubber tappers from taking jobs with Ford.

Although Ford provided unprecedented housing, health, nutrition and education benefits to workers and their families, these advantages were often offset by attempts by Ford managers to impose North American customs and cultural practices on their labor force. For example, workers rioted in December, 1930 when the Ford plantations opened a cafeteria and required single men to take their meals there, deducting the costs of food from their wages. Workers were angry about the deductions, which inhibited them from spending money on alcohol, sex and other recreation outside the plantations. Their grievances also included the installation of a self-service cafeteria to replace waiter service. Artisans and skilled workers objected to waiting on line with unskilled workers instead of being served at tables by waiters. The cafeteria served meals that Ford considered healthy for their workers in Michigan, including spinach - an icon of nutrition in the United States - instead of their traditional rice and beans.

In a recent study of the Ford plantations, Greg Grandin attributes their failure to Ford’s arrogance in trying to impose his vision of a North American rural utopia in the Amazon. Transposing an idealized “Main Street, USA” to the Amazon, the Ford Company constructed modern hospitals, schools, housing, churches, cafeterias, cinemas and sport facilities in their plantations in Fordlandia and Belterra, without taking into account the local environment and culture. See Grandin.

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97 See Grandin.
constructed to retain heat, the food imported from the United States was strange and unpalatable, and regimented working hours forced laborers to work during the hottest part of the day, rather than during the cooler pre-dawn and early morning hours. A ban on alcohol on the plantations, inspired by the Prohibition laws of the United States, dismayed the workers, who looked forward to drinking cachaça as their just reward for a hard day’s work.

Grandin argues that Ford management’s regimented, puritanical approach hindered the recruitment and retention of sufficient labor in a region in which autonomy and cultural traditions meant much more to rural workers than high wages and social welfare benefits. *Caboclo* workers preferred seasonal rubber extraction labor to regimented full-time work on plantations because they wanted time to plant their crops, fish and hunt for their subsistence and regarded seasonal rubber work as a means to obtain imported supplies in return for their production. Rubber workers who chose not to work for the Ford plantations had to confront the risks of poverty, insecurity, and malnourishment, but they enjoyed considerable autonomy and mobility.

Extending Weinstein’s argument to the Ford plantations, I argue that the collapse of the rubber boom, combined with the exodus of migrant workers from the rubber estates, left the remaining rural workers with more options, especially in the relatively diversified economy of Pará. Grandin highlights the Ford Company’s dilemma over establishing wage levels in a largely pre-capitalist economy. If Ford paid low wages, the company would not attract enough workers, and if it paid high wages, laborers would leave as soon as they saved enough to devote the rest of the year to growing crops and other pursuits.98

Taking issue with Warren Dean’s emphasis on the determining role of the fungus in the foreclosing the option of a viable plantation economy, sociologist

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Stephen Bunker argues that the exodus of rural workers after the rubber boom collapsed was the reason that Ford could not recruit sufficient labor to take the labor-intensive measures required to prevent fungus epidemics. In contrast, abundant and cheap labor was available in Southeast Asia, enabling colonial planters to spend many years in experimental cultivation of imported rubber seedlings before their rubber plantations became fully productive and successful.

In an interview with the author, Dr. Eurico Pinheiro, a senior scientist at Brazil’s Agricultural Research Institute in Belém (EMBRAPA), who grew up on the Ford Plantations in Belterra during the late 1930’s and early 1940’s, asserted that labor scarcities were not a problem because Ford offered the best wages and benefits to rural workers that could be obtained in the Amazon. Pinheiro concurred with Dean that the South American Leaf Blight was responsible for the failure of the plantations. By 1936, the Ford Motor Company had given up on its fungus-ridden plantations in Fordlandia and moved downriver to Belterra, near the city of Santarém, where the less humid environment was more favorable to Hevea cultivation. Under the new management of Archibald Johnston, Ford learned from some of its mistakes in labor management and compromised on cultural issues, such as cafeteria food. Proximity to Santarém gave the workers access to general merchandise, alcohol, and local forms of recreation - including prostitution - free from supervision by the Ford plantation. Labor morale improved as management made concessions to local culture, rather than seeking to impose a utopian North American life-style.

Despite his idiosyncrasies, Henry Ford’s management style was not unique, but reflected the cultural values and labor practices of large North American businesses with overseas investments in primary agricultural export products during early

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100 Interview with Dr. Eurico Pinheiro, EMBRAPA, Belém, April 14, 2005.
101 Grandin, 320-325.
twentieth century. Many prospered, despite their misguided efforts to impose North American customs, culture and morality on local workers and their families. Failure to develop appropriate disease-resistant productive hybrids to overcome the challenge of leaf blight was the main reason that rubber plantations did not flourish in the Amazonian environment. Labor shortages were also a factor, but even with adequate labor forces, it was not possible to prevent repeated outbreaks of South American Leaf Blight epidemics.

Ample supplies of cheap Asian rubber flowed to the industrialized countries for thirty years, lulling them into complacency. Until World War II began, United States government’s policy in the Amazon focused on supporting trade and investment by North American companies. The Ford Motor Company’s investment in rubber plantations (1927-1945) was the most important and promising enterprise in the Amazon. Had the Ford plantations succeeded, the United States government would have relied on Ford for most of its wartime rubber requirements, but after years of experimentation, they were not productive enough to make a difference in the scramble by the Allies for to find alternative sources for this vital strategic material. With the Ford plantations languishing, the United States had little choice but to support the revival of the extractive rubber industry in Amazonian rainforests.

With the failure of Amazonian rubber plantations, the region’s economy remained in recession in the decades after the collapse of the rubber boom. The rural economy continued to be based on extractive industries, including rubber tapping, nut-gathering, hunting for pelts, and fishing. Influxes of migrants from the hinterlands to Amazonian cities and towns produced greater demands for food. Pará became an important cattle-raising state, and subsistence farmers living near urban areas found ready markets for their produce. The rural poor who migrated into the cities became a marginal, under-employed population, finding some work in the informal economy.

A visitor from the nineteenth century would have recognized most of the
features of Amazonian society in 1940. *Aviadores* continued to dominate trade throughout the river system, and patron-client relations were based on credit and debt. The gap between the economic and social conditions of the rural poor and urban elites was enormous. The frontier remained sparsely populated, and indigenous groups tried to avoid contact with an advancing Brazilian “civilization.” Missionaries and SPI agents vied to place indigenous communities under their protection, but brought disease and deculturation to the Indians. The Brazilian state had legal sovereignty over five million square kilometers of Amazonian territory but had yet to consolidate its authority over the region. Outside of the cities, the vast rainforests and complex river system of the Amazonian Basin seemed virtually unchanged by the rubber cycle.
CHAPTER II

FORGING THE WARTIME ALLIANCE FOR RUBBER

Japan’s occupation of the principal rubber-producing countries of Asia in 1942 removed 90 percent of the world’s plantation rubber supply from the Allies, threatening a severe shortage of this vital strategic material for the United States and its allies. The British colony of Malaya fell to Japan in February and the Dutch colony of Indonesia was occupied in March, leaving only the British colony of Ceylon (Sri Lanka) as an important source of Asian rubber.

Without access to huge supplies of crude rubber, the Allies were in danger of losing the war. During World War II, Allied military requirements for rubber exceeded 100 percent of the normal civilian demand. The Allies needed tires for airplanes and jeeps, and rubber was an input for many products with military applications, including, e.g., radar equipment, portable bridges, gliders, oxygen masks, cameras, surgical gloves and cable wires. In addition to military requirements, tires were essential to equip over 30 million passenger cars, buses, and trucks used in civilian transportation. In 1941, rubber production in Latin America and Africa amounted to less than two weeks of demand in the United States alone.\textsuperscript{102} The United States imported 1,029,000 tons of natural rubber in 1941, of which 1,008,000 tons were from Southeast Asia.\textsuperscript{103} Only around 11,000 tons were imported from Latin America, and a similar amount from Africa. The United States and its wartime allies had to develop an urgent action plan to compensate for the loss of rubber imports from Asia.

\textsuperscript{103} Ibid, 208.
The possibility of war with Japan and Germany prompted the United States to stockpile rubber as early as 1938. The Rubber Manufacturers Association recommended bartering surplus American cotton for rubber, and in 1939 the United States government acquired 90,000 tons of rubber from Britain for its emergency stockpile, in return for 500,000 bales of American cotton. The Rubber Reserve Company, created in 1940 as a subsidiary of the U. S. government’s Reconstruction Finance Corporation, negotiated with the British-dominated Southeast Asian rubber cartel, the International Rubber Regulation Committee, to purchase more rubber. The United States imported 818,400 tons in 1940 and 1,029,000 in 1941, of which 533,000 tons were stockpiled. 104 This emergency planning prevented dire shortages during the critical years of 1942 and 1943, after access to Southeast Asian was blocked and before alternate sources of supply could be organized. 105 By 1943, natural rubber imports to the United States from Southeast Asia had fallen to only 20,000 tons. 106

After the Japanese attack on Pearl Harbor on December 7, 1941, the United States assumed responsibility for increasing the supply of natural rubber from Latin America and Liberia, while Britain took the lead in obtaining rubber from other tropical countries, such as Ceylon and India, where it was the colonial power. Early in 1942, the United States negotiated agreements with fifteen Latin American countries to become the exclusive buyer of all of their surplus natural rubber production. 107 The U.S. Board of Economic Warfare (BEW) optimistically predicted that rubber production in the western hemisphere would increase to over 60,000 tons in 1943 and almost 120,000 tons in 1944.

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104 Ibid.
105 Ibid, 203-204.
106 Ibid, 208.
107 Brazil, Peru, Bolivia, Ecuador, Colombia, Venezuela, Panama, Costa Rica, British Honduras (Belize), Honduras, El Salvador, Guatemala, Haiti, British Guiana, Mexico (Corrêa, 65).
Under the Roosevelt Administration, several United States government agencies had authority and often overlapping jurisdictions to implement the natural rubber program. The Rubber Reserve Company (RRC) handled overseas procurement of natural rubber for the strategic stockpile. The Department of Agriculture (USDA) carried out technical field studies and experimental planting of natural rubber in Latin American countries. Using a 1940 appropriation of $500,000, USDA sent survey teams to the Amazon, Central America and the Caribbean with instructions to locate planted stands of rubber, collect Hevea seeds and seedlings, and report on the wild rubber trade. The goal was to stimulate rubber cultivation in Latin America by developing clones and hybrids that combined resistance to pests with high latex productivity.\(^\text{108}\)

The Board of Economic Warfare, chaired by Vice President Henry Wallace, was responsible for the acquisition of strategic materials from other countries, subject to policy review by the State Department. The Rubber Reserve Company continued to purchase rubber but had to clear every detail with the powerful BEW. United States agencies differed over whether to give more priority to longer-term programs to develop viable rubber plantations or to short-term efforts to increase wild rubber production in Latin America, with USDA favoring plantations and the RRC opting for traditional extraction of wild rubber in rainforests.

In August 1942, President Roosevelt asked Wall Street financier Bernard Baruch, a member of his “Brain Trust” on economic issues, to chair a Rubber Survey Committee tasked with recommending measures to secure a sufficient supply of rubber to conduct the war. Even in the early 1930s, Baruch had begun to urge the government to stockpile rubber and tin in order to prepare for the possibility of war with Germany or Japan.

\(^{108}\) Dean, 87-89.
The Rubber Survey Committee proposed a number of measures, including an urgent program to develop and produce synthetic rubber; a minimum stockpile of 100,000 long tons of natural rubber; and vigorous efforts to increase production of natural Hevea rubber, as well as guayule and cryptostegia. The United States government financed the planting of guayule, desert shrub native to the borderlands of northwestern Mexico and southwestern United States, as a natural alternative source for latex. Guayule shrubs had to be crushed to extract a small amount of liquid guayule, and the process proved to be an expensive alternative to the extraction of Amazonian wild rubber. In an extravagant venture in Haiti, North American rubber experts decide to plant African Cryptostegia vines (a source of the rubber from East Africa), which yielded 5.5 tons at a cost of more than $1 million per ton. The quest for new sources of natural rubber was so urgent and intense after Malaya and Indonesia were occupied by Japan that costs became a secondary consideration.

To conserve rubber tires on automobiles, the Rubber Survey Committee recommended nationwide gasoline rationing to hold average annual mileage for each car to 5,000 miles, and a maximum national speed limit of 35 miles per hour. Baruch's committee also recommended the immediate construction and operation of 51 plants to produce the chemicals (monomers and polymers) needed for the manufacture of synthetic rubber, a strategic material that Germany was already producing successfully.

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110 Dean, 103-104.

111 Synthetic rubber is any type of artificially made of polymers, which act as an elastomer. An elastomer is a material that can undergo much elastic deformation under stress and still return to its previous size without permanent deformation.
To resolve the problem of overlapping jurisdictions in the rubber program, Baruch proposed the appointment of a Rubber Director to coordinate and manage the plethora of government agencies and private companies involved. Roosevelt appointed William M. Jeffers, the combative president of the Union Pacific Railroad. Even Jeffers's critics conceded that he had the tenacity and intelligence to do the job, push the program forward, and brook no interference in implementing the recommendations of the Rubber Survey Committee.

Despite his experience as a successful Wall Street financier, Bernard Baruch argued that the government needed to direct the economy in wartime. He recommended that Washington assume control of all aspects of the economy, subordinating the interests of business and labor unions to national security requirements. Furthermore, he argued that price controls were essential to prevent inflation and maximize the production of military armaments and supplies. Baruch advocated organizing and controlling labor to serve wartime production goals, even suggesting that skilled workers in the United States should be offered a choice between working in strategic industries or conscription into the military. Baruch proposed to temporarily curtail free enterprise during wartime, and most of his proposals were accepted by the Roosevelt Administration, which had already used government intervention in the economy as its principal strategy to lift the country out of the Great Depression. A similar state-directed approach to marshalling strategic resources was incorporated into the United States government’s programs to increasing rubber production in the Amazon.

The United States lagged behind Germany in developing processes to produce commercial quantities of synthetic rubber. In 1939, the United States did not produce

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112 See Tuttle.
any synthetic rubber. As late as 1941, production was only 9,450 tons, or 1.2 percent of total domestic rubber consumption of a nation still at peace.

In late 1942, the War Production Board issued a report predicting that if the ambitious synthetic rubber program was completely successful, alternate sources of natural rubber increased production, and citizens conserved their tires, the United States would overcome the rubber shortage within the next year. If not, a severe rubber shortage was likely to cause a breakdown in civilian transportation as well as a rubber-starved military machine, perhaps leading to the defeat of the United States and its allies by the Axis nations.

The Getúlio Vargas Era: Nation-Building and the “March to the West”

Finding alternate sources of natural rubber production in friendly countries was critical to the Allies. The Amazon was an obvious choice as the original source of wild rubber, located in a region that was far from the theaters of war and accessible to the United States. Brazil was the largest producer during the Amazon rubber boom and had huge reserves of *Hevea brasiliensis*, but an alliance for strategic materials with Brazil was by no means assured.

Getúlio Dornelles Vargas’s authoritarian and corporatist regime in Brazil seemed like one of the most unlikely candidates in Latin America to become a staunch wartime ally of the United States against the fascist regimes of Europe. Vargas had come to power through a military coup in 1930, as Brazil’s export driven economy plunged as a consequence of the Great Depression. Determined to strengthen the role of the central government and re-shape the economy, he imposed corporatist structures similar to those adopted by Mussolini in Italy and Salazar in Portugal. A number of Brazil’s senior military officers were trained in Germany and admired German military discipline and
technology.

The Great Depression of the 1930’s demonstrated the vulnerability of peripheral economies that were dependent upon exports of primary products to industrialized nations. A dramatic decline in Brazil’s traditional exports - led by coffee - undermined confidence in governance by the liberal Old Republic. Brazil’s emerging industrialists, rising middle classes and urban industrial workers were eager for new government leadership that would be more responsive to their interests than to those of the agricultural exporting elite.

Brazil’s “revolution of 1930” appealed to reform-minded military officers who aspired to industrialize and integrate the Brazilian nation and abolish the old system based on regional oligarchies, *coronelismo* and corruption. President Vargas ruled a total of eighteen years (1930-1945, and 1951-1954). Authoritarian and nationalist, Vargas sought to transform Brazil into a modern nation-state by centralizing government, promoting industrialization, and integrating frontier regions into the Brazilian nation. In contrast to the laissez-faire economic policies of Old Republic governments, Vargas implemented policies of state-led industrialization, encouraged import-substitution industries, and imposed the government as the arbiter of labor-management relations. An economic nationalist, Vargas sought to diversify and strengthen Brazil’s economy through industrialization and insert the state into the management and allocation of the nation’s natural resources.\(^{113}\)

To avoid presidential elections scheduled for 1938, Vargas used a trumped-up threat of a communist plot to engineer an auto-coup in late 1937 and impose an outright dictatorship with the support of the military. The new regime, called the Estado Novo, imposed a constitution which declared that “the sole and individual authority of the State

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is concentrated in the person of the President of the Republic.”114 The Estado Novo’s constitution was modeled after those of the fascist regimes of Italy and Portugal, but Vargas was not an ideologue. Vargas’ auto-coup was based upon pragmatic self-interest – he could not have otherwise legally remained in power. Vargas ruled by decree, negotiating and manipulating the interests of all classes of Brazilian society until he was deposed by the military in 1945, this time to pave the way for democratic presidential elections.

Vargas consolidated his dictatorial powers in 1937 by dissolving the federal and state legislatures and abolishing the elected position of governor, personally appointing Interventors to administer each state as Vargas’ representatives. Interventors depended on Vargas’ patronage, in contrast to state governors during the Old Republic (1889-1930), who had represented the interests of local elites in carving out wide autonomy for their states. Boris Fausto defines the Estado Novo as an authoritarian and modernizing regime that was neither fascist nor conservative.115

Vargas, the most influential Brazilian politician of the twentieth century, led Brazil into the modern era. He implemented a corporatist system of labor-management relations in which the state was the final arbiter. Vargas sought to mediate the interests of capital and labor by giving the state the power to decide on all disputes. To industrial workers who joined state-sponsored unions, Vargas offered the bargain of *trabalhismo*; i.e., respect for the working man and social welfare benefits in return for his loyalty to the state. To Brazilian rural workers, who represented the majority of the working classes in the 1930’s and 1940’s, Vargas offered rhetoric but little or no improvement in their labor conditions. Rural workers were nominally protected by government labor decrees but they continued to live in grinding poverty under the patronage and domination of their landowners.

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114 Levine, 51.
Vargas’ discourse in favor of the working man was disseminated to the masses throughout the cities and towns of Brazil through the newly accessible technology of radio. Unlike print journalism, Vargas’ radio broadcasts reached Brazil’s illiterate population, raising the awareness of the working classes of their rights as well as their obligations, as defined by the Vargas government. State discourse extolled the working man as a valuable citizen whose labor contributed to the development of his country - a significant change from the Old Republic’s view of workers as semi-civilized peons. By establishing the Department of Press and Propaganda (DIP), Vargas imposed strong controls on the media, ensuring that the Brazilian people received positive news about his government.

Vargas’s official discourse promoted the construction of a new “Brazilian” identity (“brasilidade”) based upon the merging of European, Indian and African peoples and cultures, rather than on shallow imitations of European “civilization.” Disillusioned with Europe after World War I, Brazilian artists and intellectuals found new inspiration in their own country's multi-racial heritage and hybrid cultures. Rejecting the Old Republic’s policy of trying to “whiten” and “civilize” the Brazilian population through massive European immigration and blind imitation of European culture, Vargas extolled the mixed-raced heritage and Brazil’s blended Indian, African and European cultures as the foundation of its strength and potential. Gilberto Freyre’s construction of an exuberant “racial democracy” produced by miscegenation and cultural interaction among Indians, Europeans and Africans influenced the Vargas government’s nationalist discourse. Vargas used the discourse of “brasilidade” to advocate the integration of all classes and all races into modern Brazilian society, but he did not trust the people enough to permit presidential elections to be held.

117 Freyre, op. cit.
Committed to nation-building, in 1938 Vargas announced the “March to the West,” a state program to occupy, settle and develop the sparsely populated Amazonian and Center-West regions. Brazil’s population was heavily concentrated on the Atlantic coast, while the northern and western regions remained vast and sparsely populated frontiers. Aware that an industrializing nation needed a strong agricultural base to produce food production for domestic consumption, Vargas encouraged the migration of landless rural workers from the Northeast to the Amazon and the Center-West (Mato Grosso and Goiás). The military supported the “March to the West” as a means of occupying and colonizing Brazil’s borderlands in frontier regions, which they considered vulnerable to foreign incursions. The government established several frontier agricultural colonies but failed to implement its ambitious plans to provide credit, schools, health care, and transportation to support the immigration of marginal rural workers from other regions of Brazil.

Scholars generally agree that Vargas was a pragmatist and a mediator among disparate interest groups, rather than an ideologue. His decision to cast Brazil’s lot with the Allied cause during World War II despite his governance as a corporatist dictator testifies to his pragmatism. Calculating which side would win and what advantages for Brazil he could extract in return for Brazil’s alliance, Vargas vacillated and finally opted to join the United States and its Allies.

Towards an Alliance with the United States

The wartime alliance with the United States was not a foregone conclusion. During the 1930’s, Vargas rejected traditional British dominance of Brazilian international commerce through liberal free trade policies and reached out to Germany in order to diversify its markets and trading partners. Germany’s growing trading and

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118 Garfield, *Indigenous Struggle at the Heart of Brazil*, 26-34.
investment relationship with Brazil, a successful German immigrant community in southern Brazil, and military training in Germany for promising Brazilian officers produced some pro-Axis sympathy. By 1936, the value Brazilian imports from Germany had surpassed that of imports from United States.\textsuperscript{119} German demand began to revive the Amazon’s dormant wild rubber production industry during the late 1930’s.

John Wirth credits the bargaining skills of the Vargas government with strengthening Brazil’s trade with two countries that had competing commercial systems: the North American free trade system versus German compensation trading, which was based on barter. With Brazil’s nationalist military pushing for the development of a national steel industry as well as oil refineries, Vargas’s government played Germany against the United States to try to extract the best possible terms of trade. As Wirth observes, Brazil’s negotiating position strengthened as the two great powers moved beyond economic competition towards outright war.\textsuperscript{120}

Brazilian relations with Germany suffered a serious setback after Vargas defeated a coup attempt in May, 1938 by a domestic fascist party, the Integralistas. Suspicious that Germany had supported the coup, Vargas cracked down on the Integralistas, as well as Axis sympathizers within the German immigrant community. Germany’s Ambassador to Brazil, Karl Ritter, consistently denied Germany’s involvement and reported condescendingly to Berlin that such a poorly executed coup attempt was possible only in a country like Brazil.\textsuperscript{121} Vargas insisted that his government would not tolerate foreign interference, particularly from European powers.

\textsuperscript{119} Wirth, 59.  
\textsuperscript{120} Ibid. 61-66.  
\textsuperscript{121} F. McCann, 95-97.
During the early war years, most Brazilian military officers thought that the German war machine was unstoppable and urged neutrality and accommodation, but stopped short of advocating an alliance. By late 1940, after Germany failed to prevail in the Battle of Britain, Vargas became convinced that the Germany would ultimately lose and the United States would emerge from the war as the dominant world power. Vargas wanted Brazil to be on the winning side and in a position to reap tangible benefits from an alliance with the United States, which remained the “colossus of the North” and the strongest power in the South Atlantic. Negotiating a wartime alliance with the United States subsequently hinged on the practical issues of obtaining arms to upgrade the Brazilian military and funding for Brazil’s project to build a major steel mill. Vargas used German offers of economic assistance to negotiate better military and financial assistance agreements with the Roosevelt Administration, but it was clear that Vargas would support the Allies if the United States were drawn into war.

In 1940 and 1941, The United States launched diplomatic efforts to persuade Vargas to deny German access to the Brazilian raw materials and expel German investment from strategic industries. The Brazilian government agreed to give the United States exclusive rights to purchase strategic material from Brazil, including rubber, manganese, mica, nickel and tungsten, thus denying access to these vital raw materials to the Axis powers.

In late 1940, the United States government, in partnership with Pan-American Airways, embarked upon a campaign to persuade Vargas to end German participation in

122 Ibid, passim.
123 Ibid, 245. See also US Department of State, Foreign Relations of the United States, 1941, American Republics, Vol. VI, 538-543.
Cooperation with the United States intensified in 1941 as Panair, a subsidiary of Pan-American Airlines, replaced Lufthansa as the dominant air carrier in Brazil. Lufthansa, Germany’s national airline, owned Condor Airlines and had controlling interests in Varig and Vasp – all Brazilian carriers. Vargas continued to negotiate for armaments and a steel plant while eliminating German influence in the airlines.

After months of negotiations, Vargas agreed in June, 1941 to allow Panair to construct a string of airfields in northeastern Brazil, including Belém, Fortaleza, Natal and Recife, preserving the fig-leaf that it was a commercial agreement. Through a secret contract, the United States War Department had financed Panair’s parent company, Pan-American Airways, to build airfields and bases running from the United States through the West Indies and the Guianas to the coastal city of Natal on the bulge of northeastern Brazil. Only an eight-hour flight to Dakar, the Natal airbase became known as the “springboard to victory,” the most important supply route for troops, aircraft, and equipment to reach the battlefronts in Britain and North Africa.  

Although Brazil was still officially neutral (as was the United States) the use of Natal as the most important base from which to transport military equipment to the Allies made the Brazilian government metaphorically more than a little bit pregnant. There was no turning back: Brazil needed the United States to defend its territory and shipping from likely German submarine attacks in retaliation for allowing the United States to use bases on the Brazilian bulge into the Atlantic to ferry men and supplies to the front.

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124 F. McCann, 216-220.
125 Ibid, 213-234.
126 Ibid.
Inter-American Solidarity

Nobody in Vargas’s cabinet was more assiduous in promoting an alliance with the United States than Oswaldo Aranha, Brazil’s foreign minister since 1938 and a former ambassador to Washington. Upon assuming office, Aranha linked Brazil’s economic development goals to a closer alignment with the United States, rejecting fascist and communist ideologies as alien to the Americas. A committed adherent to Pan-American solidarity, Aranha became a pivotal ally of the United States in implementing the Monroe Doctrine against Axis intervention in the Americas.

The day after the attack on Pearl Harbor, Vargas held a cabinet meeting in which the Brazilian government decided to declare its solidarity with the United States. Aranha chaired the Third Foreign Ministers’ Conference in Rio de Janeiro in January 1942, at which the countries of the Americas declared their solidarity with the United States and recommended that all American states break relations with the Axis powers. The United States delegation worked for the adoption of a resolution which declared outright that the American states decided to break relations, but Argentina, which was pro-German, opposed it.¹²⁷ The foreign ministers had to fall back to a recommendation - rather than a binding decision - to break relations in order to get unanimous support for the resolution.

Fearing Argentina’s reaction, President Vargas wavered about publicly breaking relations with the Axis powers until Aranha threatened to resign and explain his reasons publicly, if Brazil did not immediately sever relations with Japan, Germany and Italy.¹²⁸ On January 29, 1942, after the foreign ministers unanimously adopted the compromise.

¹²⁷ Argentina avoided severing relations until 1945, when Germany was on the eve of surrender.
¹²⁸ F. McCann, 258-259.
resolution, Aranha, as chairman of the conference, announced Brazil’s decision to break relations with the Axis countries. The meeting of foreign ministers and the unanimous resolution that they adopted were examples of the continuing relevance of the Monroe Doctrine and the importance of Pan-American solidarity in the face of external aggression.

The foreign ministers of the American states adopted another resolution to establish a framework for the mobilization of strategic and basic materials necessary for the defense of the hemisphere. The concept of mobilizing economic resources included stimulating production in mining, agriculture, and industry. The resolution also recommended bilateral or multilateral agreements to assure increased production by guaranteeing purchases over long periods “at prices which are equitable for the consumer, remunerative to the producer, and which provide a fair standard of wages for the workers of the Americas…” 129

This non-binding language reflects the interests of Latin American states in improving their traditional terms of trade as exporters of cheap raw materials to the United States. The language of the inter-American resolution reflected the rhetoric of the period and sounded positive when reported in the press, but did not commit any government to concrete measures.

During the war, the United States was vitally interested in assuring its access to reliable flows of supplies of strategic materials at stable prices. Under Roosevelt’s Good Neighbor Policy, the United States announced that it would seek to develop better relations with Latin American countries on the basis of on mutual interests, rather than

threatening military intervention in their internal affairs in order to impose U.S. policies. Roosevelt drew upon the good will generated from his Good Neighbor Policy to negotiate wartime cooperation agreements with Latin American states. As the United States prepared its military arsenal to fight a world war, Latin American governments had an opportunity to pull their primary export sectors out of depression by negotiating favorable agreements to export their strategic materials and commodities to the United States to support the Allies.

**Negotiating the Washington Accords**

The United States and Brazil proceeded to negotiate the Washington Accords of March 1942, under the umbrella of the resolutions adopted at the Rio Conference of foreign ministers. Wary of Aranha’s popularity and political ambitions, Vargas did not allow him to head Brazil’s delegation to Washington to negotiate the accords. Instead, he sent his finance minister, Arthur de Souza Costa, to negotiate the terms of Brazil’s wartime alliance with the United States. Brazil’s highest priority was to obtain armaments and military training to defend itself from German submarine attacks in the Atlantic coast and potential threats to its southern border by Argentina, which remained sympathetic to the Axis.

On the economic front, the Roosevelt Administration’s goals were to increase the supply of rubber and other strategic materials from Brazil, as well as to persuade the Brazilian government to expel German, Italian and Japanese firms from the country. Souza Costa was instructed to seek a new lend-lease agreement covering military
equipment; North American financing and material for the construction of the Volta Redonda steel mill; and funding to support the acceleration of production of strategic materials.  

Brazil got most of what it wanted, including armaments and a lend-lease agreement; a $100 million loan for the production of iron ore, steel and other strategic materials; a $14 million loan for the development of iron deposits and railroads; $5 million to finance increased wild rubber production; another $5 million for a health and sanitation program in the Amazon; and $2 million for agricultural development to increase the food supply in the Northeast. Frank McCann argues that Brazil could have obtained more from the United States in the negotiations had Vargas sent Aranha rather than Souza Costa. According to McCann, Souza Costa’s cautious approach led him to wait passively for the United States delegation’s proposals, rather than forcefully presenting Brazil’s requirements for assistance. Stanley Hilton takes issue with McCann, contending that, without jeopardizing its sovereignty, Brazil was able to extract major military and economic assistance from the United States, in return for American bases in the Northeast and access to Brazil’s strategic raw materials. Hilton contends that Brazilian leaders...“were remarkably successful in bartering geographic accident for valuable economic, military, and political concessions from Washington.”

Aranha’s absence from the negotiations was regrettable, given that his experience in the 1930’s as a well-informed and popular ambassador in Washington would have enabled him to take the pulse of the negotiations and judge what the Brazilian delegation...

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130 F. McCann, 262.
131 Ibid. 268-269.
133 Ibid.
could realistically ask for in return for its bases and strategic materials. Aranha was seen in Washington as a key factor in galvanizing Latin American support for the war, as demonstrated by his leading role in negotiating a unanimous resolution of inter-American solidarity against Axis aggression after the attack on Pearl Harbor. His friends in Washington might have found it harder to say no to Brazil if Aranha had led the delegation instead of the competent, but more passive Souza Costa.

President Vargas certainly wanted to obtain as much modern military equipment and training as possible for his armed forces in return for Brazil’s wartime alliance with the United States. But Vargas was also aware that after the leading role it had played as chairman of the Rio Conference of January 1942, Brazil also needed the protection of the United States, not only from increasing numbers of German submarine attacks on Brazil’s shipping, but also from perceived threats to the security of Brazil’s southern border from its traditional rival, Argentina, which remained officially neutral but sympathetic to Germany. 134 On February 16, 1942, German submarines sank their first Brazilian ship, the Buarque, soon after it left the port of Belém with a cargo of crude rubber and brazil-nuts, prompting Vargas to request protective convoys and artillery from the United States. 135 It was clear that cargos of strategic materials from Brazil would need military protection.

The Washington Accords negotiations were an opportunity for Brazil to bargain for more military and financial assistance and flesh out the details of the alliance, but Brazil no longer had a realistic option of going back to neutrality. For the United States government, access to northeastern Brazil was vital for the war effort, but there were

134 F. McCann, 275-277.
135 Ibid.
many competing priorities in 1942, particularly arming and supplying Britain and the Soviet Union through lend-lease so that they could halt Hitler’s advance to the western and eastern fringes of Europe. Roosevelt was prepared to help Brazil, but there were realistic limits to what the United States could do.

When Brazil joined the Allies, important sectors of its economy depended on foreign investment. In 1941, foreign investment in Brazil reached $2.2 billion; with Britain accounting for 48%, the United States 25%, Canada 18%, and other countries 9%.136 Foreign investors controlled electric power, coal and oil importation, cement production, and communications by telegram with the rest of the world. Until 1941, German airlines controlled Brazil’s budding air travel industry, but they were ousted by collaboration between Vargas and the United States and replaced by Panair.

Hitler’s Germany became the second largest importer of Brazilian rubber, after the United States, but offered compensation trading (a form of barter) rather than foreign exchange in return. When war broke out in Europe, the United States pressured Brazil to stop selling rubber to Germany, promising to purchase Germany’s market share with cash. With most of Europe occupied by Hitler’s armed forces and Britain battling to defend its own territory, Brazil became increasingly dependent on the United States.

The war highlighted Brazil's dependency on foreign investments, imports, and markets, but it also offered an opportunity to the Estado Novo to obtain United States financing for state-controlled economic development. No longer able to juggle European and United States interests, Brazil bargained exclusively with Washington. U.S. military production facilities needed Brazilian rubber, iron ore, chrome, manganese, nickel,

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bauxite, tungsten, industrial diamonds, quartz crystals, and thorium-rich monazite sands (used in atomic energy research). The two governments negotiated guaranteed price agreements that assured Brazil of predictable and consistent returns on its exports. The Brazilian private sector criticized their government for agreeing to prices that were too low, although international market prices had been significantly lower before the world war increased demand.

Frank McCann argues that the wartime alliance provided the Brazilian government with an opportunity to move towards state-guided economic development without opposition from North American commercial interests.  During the war, the United States reduced its commercial exports in order to focus its production on the requirements of the Allied forces. Therefore, the Roosevelt Administration did not consider the import-substitution industrialization (ISI) policies of the Vargas government to be a threat to the business interests of the United States. Support for Brazil’s industrialization by the Roosevelt Administration marked a departure from a more traditional hegemonic policy of promoting exports of North American industrial products in exchange for cheap raw materials and primary agricultural products from Brazil. One of Vargas’s principal objectives in the negotiations of the Washington Accords on rubber and other strategic materials was to obtain commitments by the United States to finance industrial development in Brazil. By urging the United States to support Brazilian development programs, the Estado Novo may have unwittingly opened the door to proposals from Washington that had the potential to undermine Brazil’s sovereignty.

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137 Ibid.
Challenging Brazil’s Sovereignty?

Negotiations in Washington on the terms of the Brazilian-American alliance to increase rubber production in the Amazon revealed divisions within the Roosevelt Administration between those who advocated the Good Neighbor Policy of respecting the sovereignty of other American states and others who pressed for direct North American intervention in the Brazilian economy. Brazil had to fend off a plan presented by Nelson Rockefeller, who as Coordinator for Inter-American Affairs (CIAA), called for the establishment of an Amazon Valley development corporation, managed by the United States government.

Roosevelt’s decision to create new agencies with overlapping jurisdictions, such as the CIAA, with responsibilities for Latin American issues that were traditionally part of the Department of State’s portfolio, was meant to encourage challenges to the conventional way of doing government business, but it also led to bitter intra-governmental conflicts. Nelson Rockefeller and the Board of Economic Warfare, chaired by Vice President Henry Wallace, jointly proposed a plan for an Amazon Valley development corporation, avowedly to respond to Souza Costa’s interest in a longer and broader-range program than merely the purchase of surplus Amazonian rubber by the United States. Both the Brazilian government and Amazonian elites wanted to avoid yet another boom and bust cycle in the Amazon, as occurred when rubber prices collapsed in 1912 due to competition from Southeast Asian plantations.

Henry Wallace, a strong advocate of social reforms, was convinced that Latin America could increase its rubber supply by raising the living standards of rubber
workers and reducing the incidence of chronic malnutrition and malaria. For Latin America, progressive New Dealers advocated decent wages and benefits for workers and measures to end coercive labor systems, including debt peonage.

Rockefeller, the most famous capitalist of his time, aligned with Wallace, the quintessential New Deal social reformer, to propose a more intrusive Amazon development program managed by the United States. This seemingly bizarre alliance was based on complementarities of interests. Vice President Wallace proposed to use the rubber program to stimulate reforms to improve the conditions of rubber tappers, whereas Rockefeller planned to open the Amazon to North American investment.

The proposed Amazon Valley development corporation was to assume responsibilities for managing rubber production, while a second corporation would investigate other development possibilities in Brazil. U.S. technicians were to survey Brazil and recommend urgent development projects, many of which could be implemented by existing private or public corporations. The U.S. government would provide $5 million for each corporation, with a prospect of a future $30 million line of credit from the U.S. Federal Loan Agency. Brazil would provide counterpart funds for both development corporations.

While the proposal provided for “adequate representation” to Brazilians on both Boards of Directors, “sufficient managerial control would be retained in United States hands to insure efficient operation and a minimum of susceptibility to local political influence or vested interests.” The proposal’s intention was clear: to establish U.S.

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138 “Rubber and Other Economic Development in Brazil,” Memorandum of Conversation of 18 Feb., 1942, Department of State, National Archives and Records Administration (NARA), College Park, Md., RG 59, Box 4517.

139 Ibid.
management and control of the two Amazon development corporations and minimize the role of the Brazilian government.

Later, the proposal was reduced to one development corporation, and the Board of Economic Warfare clarified that the $5 million endowment of the development corporation would be a loan, which would be repaid out of a premium of five cents per pound that the U.S. Rubber Reserve Company had committed to pay for all Brazilian rubber exported to the United States in excess of 10,000 tons per year. ¹⁴⁰ (The Rubber Reserve Company offered to pay a fixed price of 39 cents per pound through June 30, 1944 for the highest quality crude rubber, known as Acre fina.) The purpose of the corporation was to increase rubber production in the Amazon by improving transportation to remote regions, establishing gathering stations, clearing trails in the rainforests, financing housing and sanitation, furnishing supplies, and maintaining field expeditions. The Board of Economic Warfare also urged that the Brazilian government establish a quota of rubber for internal consumption and export its entire surplus to the United States.

This approach contradicted Undersecretary of State Sumner Welles’ public statement after Vargas’s coup of 1937 that a principle of the Good Neighbor Policy was “to refrain from minding your neighbor’s business for him.”¹⁴¹ Welles emphasized that Minister Souza Costa had “objected vigorously to any program giving the appearance of the relinquishment by Brazil in any respect of its sovereignty,” and had made clear that Brazil would never agree to any project for the direct exploitation of a large area of Brazil

¹⁴⁰ Memorandum from Henry Wallace, Chairman, BEW, March 11, 1942, NARA, RG 59, Box 4517.
¹⁴¹ F. McCann, *The Brazilian–American Alliance*, 67,
The Brazilian delegation counter-proposed that any Amazon valley or wild rubber collection proposals be considered within the framework of a proposed broad development program for all of Brazil, insisting on Brazilian control with United States collaboration.

Welles defended Brazil’s position on its sovereignty. He told Vice President Wallace that he would never approve a policy “which could only have been interpreted by the Brazilian Government and by the Brazilian people as an effort to utilize the present international emergency as a means of obtaining from Brazil rights and prerogatives which would have been tantamount to direct economic intervention in Brazil in derogation of Brazilian sovereignty.”

Instead, Welles, together with Secretary of Commerce Jesse Jones, approved the formation of a Brazilian development organization to be financed by a $100 million line of credit from the United States for the purpose of cooperation in the development of strategic and basic materials. Welles assured Wallace that the Rubber Reserve Company would be authorized to manage the use of its $5 million fund for rubber production in Brazil, provided that its activities were acceptable to Brazil. Regarding Brazil’s domestic consumption of rubber, Welles rejected the imposition of quotas and stated that “any internal measures taken by Brazil must necessarily be on a voluntary basis.”

Welles reminded Wallace that Brazil was a valuable ally that had broken relations with the Axis countries and was actively aiding the United States military in maintaining supply routes in the Atlantic. He expressed his confidence in Brazil’s commitment to the alliance and refused to re-open negotiations on

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142 Memorandum from Sumner Welles to Vice President Wallace, Chairman, BEW, March 19, 1942, NARA, RG 59, Box 4517.
143 Ibid.
144 Ibid.
the Washington Accords, despite Wallace’s request.\textsuperscript{145} Aranha’s unswerving support for an alliance with the United States won the confidence of Undersecretary Welles, who became the leading advocate for protecting Brazil’s sovereignty in the Roosevelt Administration.

The State Department’s position prevailed in this high-level bureaucratic battle on forging the rubber alliance. Roosevelt had warned Nelson Rockefeller that if he got into foreign policy disputes with the State Department, he would support the position of the Secretary of State. FDR’s goal was to cement a strategic alliance with Brazil that would guarantee the United States access to its vital strategic materials as well as to air bases on the Northeastern coast. From Roosevelt’s perspective as Commander-in-Chief, neither Henry Wallace’s well-intentioned social reforms nor Rockefeller’s ambitious plans for United States investment in the Amazon were vital to the war effort.

Intra-governmental conflicts occurred within both governments during these negotiations. In a letter to Vargas on February 22, 1942, Valentim Bouças, a Vargas confidant and senior member of the Brazilian delegation, denounced Souza Costa for failing to prepare for the negotiations, thus losing important opportunities for Brazil.\textsuperscript{146} Bouças, a high-powered Brazilian business leader and key economic adviser to Vargas, reported that no delegation meetings were held to prepare proposals and decide upon the delegation’s positions. When the Brazilian delegation was called to the State Department to meet with Sumner Welles, they arrived unprepared. Asked by Welles what issues the Brazilian delegation wanted to discuss, Souza Costa raised access to Lend-Lease for

\textsuperscript{145} Ibid.
\textsuperscript{146} Carta-relatório de Valentim Bouças a Vargas sobre a Missão Sousa Costa, February 22, 1942, Arquivo Getúlio Vargas, GV 42.01.02 R-07, Centro de Pesquisa e Documentação, Fundação Getúlio Vargas (henceforth, CPDOC/FGV), Rio de Janeiro.
military supplies, and on the economic front, rubber and cotton. Bouças insisted that the Brazilian delegation should negotiate for United States financing of economic and industrial development, rather than limit the economic negotiations to armaments and a few commodities. Souza Costa focused on Brazil’s highest priority in the negotiations, which was to obtain the military equipment necessary to upgrade the armed forces. Bouças, who was familiar with North American ways of doing business, decided on his own initiative to take the lead on economic issues.

Frank McCann credits the intervention of Valentim Bouças with preventing the adoption of the Rockefeller plan for a United States-led development corporation in the Amazon. Souza Costa had instructed his delegation to refrain from making its own proposals, and instead to consider proposals initiated by the United States. Bouças advocated the creation of a development corporation, managed by the Brazilian government, which would coordinate economic development and deal with all economic matters that were in the mutual interest of both countries. Furthermore, Bouças proposed that Brazil control the rubber production program, with financial support from the United States.

Suspicious that Rockefeller’s intentions were to promote his family’s business interests, Bouças circumvented his delegation chief and made his case directly with State Department officials, declaring that the CIAA’s Amazon development corporation proposal violated the commitments undertaken at the Rio foreign ministers’ conference and could be considered American imperialism. In a working-level meeting with State Department officials, Bouças relayed his personal perspective that there were two currents in United States policy – the first, that of President Roosevelt and the Good

\[147\] Ibid.
Neighbor Policy; and second, that of Wall Street businessmen who were trying to turn back the clock, contrary to the realities of the modern world. He emphasized that all of Latin America was watching the Washington Accords negotiations, and if they failed, it would mean the failure of the Rio Conference of Foreign Ministers. Such a failure, he added, would move the frontiers of the defense of the United States northward to the Panama Canal and embolden Argentina.

Bouças reported to Vargas that he told his State Department counterparts that the Rockefeller proposal would give the “painful impression” that the United States was interested in Brazilian rubber only because Japan had taken control of Asian rubber. This disingenuous statement was a questionable negotiating tactic, because it must have been obvious to the Brazilian delegation that United States interest in reviving Amazonian rubber production stemmed from the consequences of Japan’s occupation of Malaya and Indonesia.

Bouças also proposed that Brazil organize an autonomous national development corporation or agency to direct and administer wartime economic programs. This corporation would have the power to make contracts for services in the Amazon and elsewhere. The United States would open a $100 million line of credit for economic development in Brazil and a mixed commission of technical specialists from both countries would study all project proposals.

Undersecretary Welles, aware of Souza Costa’s reluctance to make proposals on economic issues, adopted many of Bouças’s suggestions as his own and proceeded to recommend them to Souza Costa. At a luncheon in their honor, Welles, speaking to

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148 Ibid.
149 Ibid.
Souza Costa and his Brazilian delegation in Spanish, recommended that Brazil form a national economic development corporation, managed by Brazilian directors, for which the United States pledged to open an initial line of credit of $100 million, with the agreements, to be confirmed by an exchange of notes.¹⁵⁰ Not surprisingly, Souza Costa quickly accepted Welles’ proposal.

In his letter to Vargas, Bouças offered a negative interpretation of Nelson Rockefeller’s participation in the Roosevelt Administration. He explained that wealthy “dollar-a-year men,” who accepted jobs in the Roosevelt Administration in return for this token remuneration, were using their positions to look for opportunities to make commercial profits through the exploitation of raw materials overseas, “leaving us with holes in the ground and without industries.”¹⁵¹ Bouças played to Vargas’ nationalism by expressing concerns that allowing a United States-dominated Amazon Valley corporation to manage rubber production in the Amazon could open the door for North American companies to prospect for oil in the region.¹⁵² Bouças contended that the “dollar-a-year men,” including Rockefeller and Secretary of Commerce Jesse Jones, forgot that it was necessary to make sacrifices during wartime; they rejected the Good Neighbor Policy and favored a return to the antiquated and imperialistic policy of subjugating their neighbors. Bouças reported to Vargas that “happily, for us, the men of the government, notably President Roosevelt and the Departments of Agriculture and of State, do not accept this

¹⁵⁰ Ibid.
¹⁵¹ Ibid.
¹⁵² Bouças conveyed to Vargas that U.S. millionaires accepted their high-level posts without salary only because they expected to use their government positions to make huge profits after they left public service. What he and Vargas might not have known was that during World War II, it was considered patriotic for wealthy men to enter public service without accepting a salary (which was too low to be meaningful for millionaires in any case). It was considered an honorable alternative to military service, and anyone with political ambitions had to establish a record of wartime public service.
antiquated policy of domination and subjugation” and remained steadfast in adhering to the Good Neighbor Policy. ¹⁵³

The Vargas government did not oppose foreign investment, but insisted that the state would decide upon development priorities and Brazil’s natural resources. Petroleum was discovered in Brazil only in 1939 - in Bahia - and economic nationalists within the Estado Novo advocated nationalizing both production and oil refining. Standard Oil of New Jersey, founded by the Rockefeller family, and other major oil companies tried to preempt the Vargas government by proposing to build refineries in Brazil before restrictive laws could be adopted. Standard Oil made several proposals between 1936 and 1942 to build a large refinery in Niterói in return for oil concessions in the Amazon and Paraná River basins, but they were blocked by the Brazilian military, which remained very wary of foreign penetration. ¹⁵⁴ It is not surprising that Bouças was suspicious of Nelson Rockefeller’s postwar intentions.

Unfortunately, the Brazilian delegation did not include a rubber expert, and the Commercial Associations of Pará and Amazonas were quick to criticize the Souza Costa delegation for agreeing to what they perceived as a guaranteed bargain price of 39 cents per pound FOB (Free on Board) Belém for the highest quality (Acre fina) crude rubber exports bound for the United States. This price was considerably higher than the 18.5 cents per pound that the United States paid for Asian crude rubber in 1941, before the Japanese had occupied Southeast Asia, but Amazonian rubber elites thought that a higher price could be exacted due to the exigencies of war. ¹⁵⁵ Despite their complaints, the

¹⁵³ F. McCann, *The Brazilian-American Alliance*, 263.
¹⁵⁴ Wirth, 133-159.
¹⁵⁵ Corrêa, 43-44.
guaranteed price was high enough to stimulate traditional Amazonian elites to get back into wild rubber production.

When he complained about potential conflicts of interests of senior Roosevelt Administration officials, Bouças might have reflected on his own business dealings. Bouças represented several major North American companies in Brazil, including Goodyear and IBM, where he had gained valuable experience in dealing with United States business interests. Warren Dean argues that Bouças’ support for a moderate price ceiling for crude rubber was influenced by his position as a director of Goodyear’s Brazilian subsidiary, which had begun manufacturing tires in Sao Paulo in 1940. As there were no price ceilings for rubber tire sales, Brazilian subsidiaries of Goodyear and Firestone earned huge profits during the war years, by buying crude rubber at a relatively low fixed price and selling tires at high market prices.

Evidently, President Vargas was not troubled by apparent conflicts of interest between Bouças’ position as his economic adviser and his personal business interests with North American companies. After the Washington negotiations were concluded, Vargas named Valentim Bouças as President of the Brazilian Commission to Control the Washington Accords. Bouças had shown Vargas that he could negotiate effectively with key actors in the Roosevelt Administration to defeat proposals by powerful interests, including Nelson Rockefeller, which could have undermined Brazil’s sovereignty over the Amazon. Roosevelt’s confirmation of the Good Neighbor Policy and Welles’ defense of Brazil’s sovereignty helped the United States to obtain the Brazilian delegation’s agreement to the relatively moderate guaranteed rubber prices proposed by the United States. The Estado Novo was prepared to subordinate the interests of the mercantile

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156 Dean, 101.
Amazonian rubber elite in the negotiations for the export of this strategic material to the United States.

**The Washington Accords**

The Washington Accords of March, 1942 defined the terms of the Brazil’s alliance with the United States during World War II. The agreements to mobilize economic resources ushered in a period of unprecedented cooperation between technical government agencies of the United States and Brazil. Instead of diplomats, foreign investors and traders, North American government experts became the faces of the United States in the Amazon.

Agreements covering the Amazon rubber program were formalized in exchanges of notes on March 3, 1942, between Finance Minister Souza Costa and Acting Secretary of State Sumner Welles. For the first time, Amazonian rubber would be produced and traded within the framework of a state-directed program and with the direct involvement of a foreign government.

Three of the Washington Accords are relevant to the alliance to increase rubber production.\textsuperscript{157} The first dealt with increasing the production of strategic materials. In his note, Souza Costa referred to Resolution II adopted at the Rio Conference, which committed the American states to mobilize economic resources with the objective of increasing the production of strategic materials essential to the defense of the hemisphere and to the maintenance of the economy of Brazil. The Brazilian government affirmed its intention to create “a new official organization to investigate and promote the development of strategic materials and other natural resources of Brazil” and requested

\textsuperscript{157} Washington Accords, March 1942, US Department of State Executive Agreements, Series 371, NARA.
technical assistance from the United States. Souza Costa’s note stated that Brazil required credits of around $100 million, to be drawn as needed for expenditures in connection with specific projects. This financing was to be used for Brazilian government projects, as well as for approved private sector projects.

Undersecretary of State Welles replied by note on the same day that the United States was prepared to open a line of credit of up to $100 million for the purpose of financing dollar expenditures of projects undertaken by the Brazilian government’s new development organization. The Secretary of Commerce, through the Export-Import Bank, was responsible for examining and approving project financing in conjunction with the Brazilian government. Appropriate North American technical assistance would be made available to Brazil. Evaluation of the proposed projects was contingent on their contribution to the war effort.

A second exchange of notes between Souza Costa and Welles dealt specifically with rubber production.\(^\text{158}\) The two governments agreed on the following measures to increase rubber production in the Amazon Valley:

- The U.S. Rubber Reserve Company agreed to establish a fund of $US 5 million to be used to stimulate increased rubber production, which hopefully would result in exports to the United States of not less than 25,000 tons of crude rubber annually.

- The Bank of Brazil or another Brazilian government agency was to be the sole purchaser of rubber, both for export and for domestic consumption. The Rubber Reserve Company, in accord with the Bank of Brazil, would be able to purchase rubber for its own account.

\(^{158}\) Ibid.
The Brazilian government would reserve sufficient quantities of rubber for its domestic needs and establish export quotas, with a view to furnishing the United States with the greatest possible quantity of rubber.

The Rubber Reserve Company would enter into a five year agreement with the Brazilian government to purchase rubber produced in Brazil.

The Rubber Reserve Company was to cooperate with Brazil’s Instituto Agronômico do Norte (Agronomy Research Institute of the North - IAN) in the search for solutions to scientific problems of rubber production in the Amazon and adjacent regions.

The United States agreed to provide the services of the Division of Health and Sanitation of the Office of the Coordinator for Inter-American Affairs to implement a program to improve sanitary conditions in the Amazon Valley.

The third agreement related to the rubber program and other economic cooperation programs covered health and sanitation. In a note dated March 14, 1942, Undersecretary Welles offered North American health and sanitation experts to support the Amazon rubber program, and Souza Costa accepted the offer.

The Coordinator of Inter-American Affairs (CIAA) committed to provide experts and up to $5 million for health and sanitation programs, as well as for the training of Brazilian medical and sanitation engineering specialists.

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159 Ibid.
The mission of North American technical experts would be headed by their chief medical officer, who, in turn, would be supervised by the appropriate Brazilian government officials.

The Brazilian government agreed to contribute experts, materials, services and funds for local expenditures.

The United States agreed to collaborate with Brazilian agencies to expand their successful programs in malaria and yellow fever control; general disease control by hospitals and clinics; public education; water supply systems; and garbage disposal.

In addition to the rubber agreement, the two governments signed cooperation agreements to guarantee the supply of other primary products and strategic materials to the United States, including rock crystal, mica, quartz, diamonds cotton, coffee and cacao, *inter alia*.

Without giving up its sovereignty to an Amazon development corporation run by North Americans, Brazil obtained $5 million from the United States to re-stimulate its dormant rubber production industry. The agreements left the management of the rubber program in the hands of the Brazilian government. Although increasing Amazonian wild rubber production had not been a priority for the Estado Novo, the government was able to use North American funding to advance some of its national development goals, such as stimulating the migration of marginal rural workers to the Amazon.

The Washington Accords established the Brazilian government as the sole authorized buyer of natural rubber, whether for export or for domestic consumption, thus nationalizing trade in this strategic material and strengthening the role of the Brazilian
government in the Amazonian economy. Brazil’s sovereignty over the allocation of its natural resources was reaffirmed by establishing that the Brazilian government would decide how much rubber to reserve for its domestic needs, rather than requiring Brazil to negotiate quotas with the United States. As a director of Goodyear, Bouças also represented the São Paulo rubber manufacturing sector, which had everything to gain by insisting on Brazilian control over the allocation of its crude rubber production.

The health accord, which provided up to $5 million in United States funding for health and sanitation programs and for the training of Brazilian medical and sanitation specialists, gave North American medical experts considerable autonomy to work in the Amazon. The agreement, which was to be implemented by Rockefeller’s CIAA, called for a United States technical mission to be headed by a North American chief medical officer.

Prior to World War II, there were no public health facilities in the Amazon. The Rockefeller Foundation, a non-governmental organization, had worked on public health in Brazil since 1919 in partnership with Brazilian public health agencies, which developed confidence in North American expertise and training. Nelson Rockefeller was able to use the good reputation of his family’s foundation in Brazil in his negotiations with Brazilian authorities to establish a special public health service for the Amazon.

The Estado Novo and the Amazon Rubber Program
Execution of the Washington Accords to increase rubber production fast enough to help meet Allied wartime requirements was an enormous challenge to both governments. The interests of Brazil and the United States were not identical, however, and the expectations of each government were too high. The paramount interest of the United States was increasing production of this vital strategic material to compensate for the wartime loss of Southeast Asian rubber. The main goal of the Vargas government was to use United States financing to advance its national economic development goals. In the Amazon, this meant integrating the region into the Brazilian nation by stimulating the migration of marginal populations of rural poor from the Northeast to the Amazon; occupying remote Amazon frontier regions with Brazilian settlers; pacifying indigenous groups and incorporating them into “civilized” society; and developing the region by stimulating farming, ranching and mining. The Amazon was legally part of Brazil but it had the attributes of a huge frontier region – weak state authority, a sparse and mobile population, violent conflicts between settlers and indigenous peoples, powerful local elites, and an economy characterized by boom and bust cycles.

In October, 1940, Vargas became the first Brazilian president ever to visit the Amazon. In a speech in Manaus, Vargas outlined the policy of the Estado Novo toward the region. Vargas declared that over the past centuries, Brazil’s task had been “to conquer the land, dominate the waters, and subject the forests.” Having conquered the “river sea,” the next objective was to increase its population in an environment that had been considered inhospitable to civilization. Vargas claimed that new technologies had made it possible to plant a unique civilization that could prosper on the margins of

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160 Getúlio Vargas, “Discurso do Rio Amazonas,” Manaus, October 10, 1940, Arquivo Getúlio Vargas, CP-DOC/FGV.
Amazonian rivers. In his view, this civilization should be based on rational exploitation of resources, rather than on extraction and subsistence agriculture.

The greatest enemy of Amazonian development, according to Vargas, was the unpopulated vastness of the region. Pioneers from the Northeast who penetrated the forests to tap rubber became “nomads,” rather than permanent settlers on the land. Caboclos generally lived on the margins of the rivers, limiting their economic activities to hunting, fishing, and subsistence farming on the fertile floodplains. Vargas insisted that the “nomadism of the rubber tapper and the economic instability of the ribeirinhos (riverine populations) should give way to agricultural settlements where the “national colonist” who receives free allotted land … establishes his family in health and comfort.”

Vargas assured the Amazonian people that their entry into the national economy would be accomplished without delay and offered government support for any undertakings that benefited the collectivity. His rhetoric portrayed the federal government as an active, benevolent partner in the colonization of the region, but his promises were not matched by action. The Estado Novo offered free passage for the migration of 4,000 indigent rural families from the Northeast to migrate to the Amazon and form agricultural colonies, but failed to build infrastructure necessary to support the program. Once they arrived, colonists had to fend for themselves in an unfamiliar and challenging environment.

Using the discourse of colonialism, Vargas concluded that the highest goal of the “civilized man” of the twentieth century was to “conquer and dominate” the great equatorial river and “transform its blind force and extraordinary fertility into disciplined
energy.” Vargas never acknowledged that vast hinterlands of the Amazon were already populated by indigenous groups that would be endangered and displaced by an onslaught of migrants from other regions. Vargas’ vision of colonization and agricultural development threatened the very survival of indigenous societies.

The speech focused on a new civilizing mission to follow the era of conquest and subjugation – that of populating the Amazonian region with migrant families who would engage in modern rational agriculture and ranching. The Estado Novo considered rubber tapping, extraction of forest products, and subsistence agriculture as the traditional occupations of a semi-civilized populace and aimed to stimulate new settlers to engage in commercial agriculture.

Vargas did not exclude foreigners from his vision of Amazonian development; instead, he invited international technicians and businessmen to collaborate in developing trade and industry in the region, without the right to acquire latifundia because, in Vargas’ words, “the land legitimately belonged to the caboclos.” Such rhetoric was inconsistent with his endorsement of the one-million hectare concession granted to the Ford Motor Company in 1927 for its investment in rubber plantations in the Amazon. During his Amazon tour, Vargas visited the Ford plantations at Belterra, near Santarém. Impressed by Ford’s investments in housing, schools, sanitation, and health facilities for the workers, Vargas declared that if there were “more men like Mr. Ford in this world, no social legislation would be necessary.” Ford operated its rubber plantations in accordance with scientific management systems and social welfare principles. Although

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161 Ibid.
162 Ibid.
163 Grandin, 337-338.
Amazonian *caboclos* and Northeastern migrant workers did not like the regimentation involved in working by the clock, Vargas considered it a sign of modernity and progress.

Under the Washington Accords, the Brazilian government was responsible for organizing the revival of Amazonian rubber production. Having insisted on Brazilian control, the Vargas government became responsible for increasing rubber production on an emergency timetable. Labor was chronically scarce in the rural Amazon, and the mobilization of a labor force of rubber tappers was an urgent priority. Drawing on the labor patterns of the nineteenth-century rubber boom, the Brazilian government decided to organize a migration of rural workers from other regions, primarily the Northeast, to work on Amazonian rubber estates. The pledge of United States financing gave new impetus to the Estado Novo’s policy of encouraging the migration of the marginal rural poor from the Northeast to the Amazon.

To make this migration possible, transportation had to be organized from the hinterlands of the Northeast to remote Amazonian rubber estates. No roads connected the Northeast or any other region of Brazil to the Amazon, and part of the journey involved travel by ship along Brazil’s Atlantic coast to Belém. Threatened and sometimes attacked by German submarines, Brazil’s ocean-going ships required military escorts.

Neglected rubber estates needed loans in order to open paths to the rubber trees and purchase supplies. Promising wild rubber groves in the Western Amazon, especially in Acre, where the finest rubber trees were found, required larger investments.

Public health conditions were deplorable in the rural Amazon. Malaria, Chagas disease, tuberculosis and parasitic diseases plagued rubber estates, where there was virtually no access to health care. Lacking immunities, migrant workers were more
vulnerable to the endemic diseases of the Amazon than were native-born Amazonians. Recruited migrant workers needed to be medically evaluated and vaccinated before they were dispatched to Amazonian rubber estates.

Following the example of the Roosevelt Administration, the Brazilian government created an alphabet soup of new government agencies to implement the Washington Accords (see Chapter III). For its part, the United States focused on providing technical support and financing to increase crude rubber production quickly enough to make a difference in the war. To support this objective, the United States funded and managed the construction of airports and roads, brought in airplanes, seaplanes and ships, and dispatched public health experts and rubber technicians to the Amazon.

In contrast to the nineteenth-century rubber boom, the Brazilian and United States governments, rather than international investors or local elites, took the lead in building the infrastructure necessary to bring labor, capital, and supplies into the Amazon to stimulate increased rubber production. Transportation, financing, and public health services were all vital to the enterprise. Except for the construction of modern airports and access roads, the World War II alliance for rubber did not focus on improving the infrastructure of Amazonian cities. The “Battle for Rubber” did not stimulate a building boom of luxurious housing or cultural palaces to provide amenities for international and local elites. Improvements in transportation and communications networks were utilitarian. The spectacular Amazonas Theater in Manaus was used as the headquarters of the U.S. Rubber Development Corporation (RDC), and the extravagant life-styles of rubber barons were relegated to the past. In style as well as substance, the alliance for rubber was part of a campaign to support a war.
Preparing Transportation Infrastructure

Transporting thousands of “rubber soldiers” to the rubber estates of the Amazon rainforests required financial resources, organization, and fleets of ships, riverboats, and trucks. Recruited rubber soldiers traveled by truck or bus from their small towns or villages to a port city where they were lodged in camps and medically examined. Afterwards, they were transported by ocean-going ships to Belém at the mouth of the Amazon, or nearly 1,000 miles up the Amazon River to Manaus. From Belém or Manaus, rubber soldiers traveled long distances by riverboats into tributaries leading to the rubber estates to which they were assigned. The rivers of the Amazon, rather than roads, were the arteries of transportation of the Amazon basin. Ocean-going vessels were able to travel up the Amazon from Belém to Iquitos in Peru during the high-water season without running aground.

Colonial Brazil defended Brazil’s claims to the Amazon by establishing garrisons at key points in the river system and refusing access to ships from other countries. The arrival of steamboats on the Amazon River in 1853 stimulated trade by reducing the Belém-Manaus round trip from several months to 22 days. Prior to the steamboat era, Indian and caboclo canoe paddlers were recruited to transport goods along the Amazon River.

Emperor Pedro II’s decision in 1867 to open the Amazon to international commercial shipping shaped the destiny of the Amazonian basin as a region of international focus and influence. The rubber boom stimulated a surge of international
interest in the Amazon in the second half of the nineteenth century, but without access to the great river system which dominates the Amazonian economy, international penetration of the region would have been very limited and concentrated in Belém. After the river was opened to international shipping, British and North American merchant ships delivered supplies to and transported rubber from deep-water ports located in the interior of the Amazon, including Iquitos and Manaus.

After the collapse of the rubber boom in 1912, many international shipping lines departed from the Amazon. During the 1920s and 1930s, subsidies from the Brazilian federal government, as well as the states of Amazonas and Pará, enabled private steamship companies to continue to transport passengers, supplies and raw materials in the Amazon. In 1940, the federal government intervened to end the subsidies and created a government-owned shipping company, *Serviço de Navegação e Administração dos Portos do Pará* (SNAPP).\(^{164}\) SNAPP had 52 floating vessels including ocean-going ships, riverboats, tugboats, and motor boats in its 1940 inventory.\(^{165}\) Much of the fleet was antiquated, with vessels still burning wood for fuel.

The U.S. Rubber Development Corporation (RDC) collaborated with SNAPP to transport the rubber soldiers and supplies to the rubber estates. The RDC helped to modernize SNAPP by supplying up-to-date ships and riverboats; providing expert mechanics, welders and electricians to train Brazilian technicians; and delivering coal and other fuel to Belém at fixed, subsidized prices.

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\(^{165}\) Ibid., 109-110.
In an agreement with the RDC, concluded in July 1943, SNAPP committed to:

- maintain the fleet of vessels supplied by the RDC;
- give priority to any RDC cargo or cargo that the RDC considered necessary to the rubber program;
- construct or charter riverboats that could navigate the upper Amazon, where deep draught ships could not go, due to waterfalls and rapids as well as seasonal changes in river depths; and
- abstain from making profits from operating boats provided by the RDC and return vessels supplied by the RDC upon expiration of the agreement.\(^{166}\)

Amazonian commercial elites were very unhappy with this agreement because it gave RDC cargos special priority in SNAPP vessels, threatening the profits of traditional *aviadores*, who controlled trade with the rubber estates from the time of the nineteenth-century rubber boom. When the *aviadores* were the only suppliers, it was easy to collude and charge exorbitant prices for basic supplies, using the argument that transportation costs had forced prices to rise. SNAPP’s agreement to give priority to RDC shipments meant that imported supplies would be delivered to major Amazonian ports faster and at lower cost by the RDC and SAVA, compared to terms offered by the *aviadores*. Furthermore, a decision by the Vargas government to make Belém the only authorized Amazonian port of entry for shipments carrying food and supplies for the rubber campaign from southern Brazil was a blow to Manaus, which had profited handsomely during the first rubber boom by receiving shipments of goods directly from the Southeast.

\(^{166}\) Ibid, 111-112.
Aviadores continued to control river trade on Amazonian tributaries where deep draught ships could not travel due to rapids and shallower waters, especially in the “dry” season. Large firms, including J.G. Araujo & Cia, had their own steamboats and riverboats and controlled trade on certain tributaries. Other firms advanced supplies on credit to petty river traders (regatões), who traveled up tributaries in small boats and advanced their wares on credit to rubber estates in return for future deliveries of crude rubber. The regatões returned to their patrons, the aviador trading houses, to be credited for the rubber they brought. Petty river traders operated within the same chain of debt and credit that prevailed on the rubber estates, but, unlike the rubber tappers, they had opportunities to prosper. River traders had autonomy, mobility and a modicum of security, given that avidade depended on them as their links between the firm and rubber estates, especially those located on remote tributaries that were difficult to access.  

As important intermediaries in the rubber trade, the regatões formed the nucleus of a lower middle class in the rural Amazon. A number of Jewish and Arab aviadore who immigrated to the Amazon as young men had worked as river traders before starting their own aviador firms.

Ships carried crude rubber from Belém for export to the United States or southeastern Brazil and returned with supplies. Although the price of crude rubber was controlled under the Washington Accords, imported supplies sold by aviadore and rubber estates’ trading posts were always relatively more expensive. Over-pricing vital supplies enriched the middlemen but left rubber workers engulfed by debt, undermining efforts by the United States and Brazilian governments to stimulate productivity by...

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168 See Weinstein, 50-51.
increasing the real earnings of the rubber tappers from the sale of their production (See Chapters III and IV).

To speed up the transportation of RDC officials and urgently required manpower and equipment, the United States Defense Supplies Corporation, a subsidiary of the Reconstruction Finance Corporation, constructed an airport on the outskirts of Manaus, which remains the principal airport of Manaus today.\textsuperscript{169} The RDC contributed seaplanes to transport tons of urgently required food and supplies into areas that were inaccessible by river.\textsuperscript{170}

For the first time, Manaus, a rainforest city located almost 1,000 miles up the Amazon River, was connected by an air transportation network with the rest of Brazil and the outside world. The RDC signed a contract with Pan American Airways to provide air freight service between Miami and Manaus, linking the interior of the Amazon with the United States by air for the first time. The United States also built an airport in Iquitos, the most important port of the Peruvian Amazon. Panair do Brasil established air service connecting Belém, Manaus, Tabatinga, Pôrto Velho, and Iquitos.\textsuperscript{171}

The Manaus airport contributed to the process of integrating the vast state of Amazonas and the rest of the western Amazon into the Brazilian nation. Development of transportation infrastructure was vital to achieving the state’s goal of consolidating Brazil’s sovereignty over the vast Amazonian region. The construction of airports and airfields in the Amazon supported the objectives of the Brazilian military, increasing its mobility and enhancing its capacity to occupy the frontier region, secure the borders and

\textsuperscript{169} Corrêa, 106-108.
\textsuperscript{170} “Rubber Production and Activities of the Rubber Development Corporation in the Amazon Valley,” Telegram 140, American Consulate, Pará, to the Secretary of State, July 24, 1944, NARAS, RG 59, Box 4512.
\textsuperscript{171} See Corrêa.
protect Brazil’s sovereignty. On the other hand, observing North Americans directing the construction of an airport in Manaus, improving the airport in Belém, and establishing a network of airfields and radio communications stations in towns throughout the Amazon raised some doubts on the part of Brazilian nationalists about the intentions of the United States over the long term. Could Brazil rely on the good faith of the United States to leave once the war was over?

The Amazonian elite clearly benefited from the airport in Manaus, which stimulated the regional economy and greatly shortened travel time for those who could afford it. Inland, isolated and surrounded by rainforests, Manaus was an unlikely candidate to become the most important city of the Amazon after the collapse of the first rubber boom. The construction of a major airport in Manaus opened new possibilities of trade and tourism that would be realized in the post-war era.

**Financing the “Battle for Rubber”**

The rubber estates that had created the wealth of the rubber boom were neglected after the boom collapsed in 1912. Thirty years later, capital was needed to revive old rubber estates and stimulate the opening of new rubber trails to reach untapped Hevea reserves, especially in the vast western frontier.

To finance this ambitious enterprise to increase rubber production, the Brazilian government created the *Banco de Crédito da Borracha* (BCB) through Decree-law 4.451 on July 9, 1942.\(^\text{172}\) The Rubber Credit Bank, with its headquarters in Belém, had the exclusive right to buy and sell crude rubber, both for export and to supply Brazil’s

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\(^{172}\) Oliveira, 85.
manufacturing industry. The Brazilian government capitalized the bank by buying 55 percent of its shares. The United States government, through the Rubber Reserve Company, bought 40 percent, and the remaining 5 percent of shares was made available to private Brazilian investors. The total initial capital invested was 50,000 Brazilian contos or US $2.5 million.\textsuperscript{173} The bank presidency was reserved for a Brazilian citizen and the Board of Directors was composed of two North Americans and three Brazilians.

The purpose of the Rubber Credit Bank was to make loans to rubber producers as well as to individuals and companies involved in extraction, trade and industrialization of rubber. The bank was authorized to provide financial assistance for:

- supplying rubber estates;
- developing transportation between production centers and the marketplaces of Belém and Manaus;
- preparing and colonizing the most productive zones for planting and cultivating the best rubber trees identified by the Brazilian Agronomic Institute of the North; and
- organizing cooperatives of rubber tappers and small producers.\textsuperscript{174}

The decision to establish a development bank, rather than relying on the aviadores or private banks to finance the rubber program, was almost inevitable, given the urgency of the war effort and the Estado Novo’s policy of enhancing the role of the state in the economy. Urgent economic requirements for global warfare unexpectedly provided the Estado Novo with external financing and a mandate to intervene directly in rubber production in the Amazon. The Estado Novo’s goal was to subordinate both

\textsuperscript{173} Ibid.
\textsuperscript{174} Banco de Crédito da Borracha, Legislacão, Banco da Amazônia, Belém, 1947, 4-5.
business and labor to the interests of the national government and reduce the power of regional elites, but the Amazon was still a vast periphery, where the state had limited authority and resources. The Vargas government used the opportunity presented by the Battle for Rubber to insert the state as an important factor in mediating relations between rubber laborers, traders, and estate owners. It was in Vargas’s interest to break the power of the Amazonian mercantile rubber elite and thereby enhance his image of as a defender of the working classes in a region where most rural laborers were debt peons.

The Rubber Credit Bank was a direct challenge to the interests of the great Amazonian trading houses, which had made fortunes from trading over-priced supplies and imported food to the rubber estates on credit in exchange for future deliveries of crude rubber and other primary forest products. Trading posts on rubber estates overcharged for vital supplies and foodstuffs and paid artificially low prices for the crude rubber production of the tappers. Rubber tappers were not paid in cash; instead, they had running accounts with their estates’ trading posts, which they were obligated to settle before they were permitted to leave.

North American experts concluded that high costs of basic food and supplies in rubber estates led to malnutrition and chronic indebtedness of the rubber workers, decreasing productivity. In an effort to reduce debt peonage and increase production, the Rubber Credit Bank challenged the stranglehold of the *aviadores* by purchasing supplies through the Rubber Development Corporation and selling them to rubber estates at cost, or through middlemen for a very small profit. The RDC supported efforts to eliminate the middlemen and raise the real incomes of the rubber tappers by launching an initiative to deliver inexpensive basic foods and supplies from the United States to the Amazon.
The Rubber Credit Bank sought to break the exploitative trading practices of the aviaadores by offering cheap credit, underwriting vital supplies, and promoting fairer terms of trade. Aviaadores were understandably angry with both the Brazilian and United States governments for cutting into their profits. Not only was the Rubber Credit Bank financing lower-cost supplies, but it also had a monopoly over the purchase and sale of crude rubber, which had previously been in the hands of the aviaadores.

Rubber estates tried to sell their crude rubber to aviadore firms for higher prices than those set by the Rubber Bank, but the companies had to refuse because they were required to re-sell any rubber they purchased at the Rubber Credit Bank, which paid the controlled price. In April 1945, a rubber estate owner on the Rio Negro wrote to the large aviadore trading company, J.G. Araujo, Ltd. in Manaus, asking for a better price, claiming that other rubber estates had received higher prices for the identical quality of rubber. The J.G. Araujo Company replied that there was no mistake in their price of rubber because it was the same government-controlled price that was paid to J.G. Araujo by the Bank in every rubber transaction.175

**Improving Public Health and Sanitation**

The Amazon was not a healthy place to live and work, due to the lurking presence of tropical diseases, including, among others, malaria, jungle yellow fever, Chagas disease, yaws and leishmaniasis.176 Malnutrition, malaria and tuberculosis were the biggest threats to the health and productivity of the rubber tappers, particularly migrant workers. Poor sanitation and low food production in the Amazon contributed to high

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175 Arquivo J.G. Araujo, General Correspondence, 1945.
176 Campos, 106-107.
mortality rates in the region. Surveying conditions in the Amazon for Nelson Rockefeller in March, 1942, J. C. King was shocked at the conditions in the rubber estates and predicted that, in the absence of a vigorous public health campaign, 20 out of every 50 migrant rubber workers would die and another 20 would be too sick to be productive.\textsuperscript{177} Visiting rubber estates in Acre, he reported mortality rates of around 10 percent among migrant rubber tappers and much higher infant and child mortality.\textsuperscript{178}

Under the Washington Accords, the United States agreed to contribute US $5 million for public health in the Amazon, to be used for a sanitation program and other health projects agreed upon by both governments. The implementing government agencies were: for Brazil, the new Serviço Especial da Saúde Pública (SESP) and, for the United States, the Office of the Coordinator for Inter-American Affairs (CIAA), over which Nelson Rockefeller presided. Rockefeller was a logical choice for the wartime public health work of the CIAA in the Amazon, which was perceived by most Brazilian health officials as an extension of the Rockefeller Foundation’s work in other regions of Brazil.

The Rockefeller Foundation had a long history of working in public health in Brazil, beginning in 1919. After World War I, the Rockefeller Foundation focused on the eradication of yellow fever in the Americas in order to prevent the disease from being reintroduced into North America. In 1923, the Rockefeller Foundation and the Brazilian Yellow Fever Service formed a partnership to conduct eradication campaigns in the Northeast.\textsuperscript{179} Anti-vector campaigns were effective against mosquitoes that transmitted yellow fever in urban areas, but jungle yellow fever continued to lurk in rainforest canopies. In 1937, Dr. Max Theiler, a Rockefeller Foundation virologist, developed a

\textsuperscript{177} Ibid.
\textsuperscript{179} Fred Soper et al. \textit{The Organization of Permanent, Nation-Wide Anti-Aedes Aegypti Measures in Brazil} (New York: The Rockefeller Foundation, 1943), 1-6.
vaccine against yellow fever. This important advance in medical science made the humid tropics a much safer environment for vaccinated soldiers, expatriates and migrant workers from temperate zones.

In April 1942, representatives of the CIAA and the Rockefeller Foundation met with Brazilian Education and Health Minister, Gustavo Capanema, to decide on a program to implement the Accord. Capanema recommended three broad priorities, including malaria control; medical care for Amazon rubber workers; and health education, with an emphasis on training of public health nurses.\(^{180}\)

Vargas created a special public health agency under the Ministry of Education and Health to carry out the program. The agency was directed by a representative of the Institute of Inter-American Affairs (a dependency of the CIAA) and assisted by a Brazilian physician appointed by the Health Minister. Dr. George Saunders of the United States was appointed first Superintendent of the *Serviço Especial da Saúde Pública* (SESP) and Dr. Servula Lima was appointed as his deputy, with the agreement of both governments. The appointment of a North American as Director of a Brazilian public health service was an extraordinary step for the Estado Novo, but the promise of United States funding and up-to-date medical training and technology were attractive inducements. The United States pledged $2 million for SESP, and the Brazilian government agreed to provide US $500,000 over two years.\(^ {181}\) Both governments agreed that SESP should give the highest priority to its work in the Amazon, while also implementing related programs in the Northeast.

Through SESP, Amazonians obtained access to government public health services for the first time. The two sides presented an ambitious contract for President Vargas’ approval, under which SESP would have responsibilities in the Amazon Valley for

\(^{180}\) “Sanitation Program Progress,” NAR Personal, Rockefeller Family, Box 4, Folder 30, Rockefeller Archive Center (RAC), Sleepy Hollow, New York.

\(^{181}\) Ibid.
sanitation, the study and control of malaria, medical care for laborers, training of health and sanitation professionals, and the establishment of nursing schools. The contract also stipulated that SESP would be responsible for all public health work and medical care in the states of Pará and Amazonas. It was a tall order indeed, and impossible to implement with such limited resources. After field trips and consultations, Brazilian and North American health officials agreed that work should be started quickly on the most urgent priorities: malaria control in the main Amazonian population centers; distribution of medicine - especially Atabrine - to the rubber estates to prevent malaria; and leprosy control. This was a more realistic agenda, although providing health services to rubber estates dispersed in the vast Amazonian hinterlands proved to be the most difficult challenge.

**Conclusion**

The dynamics of the wartime alliance between two unequal partners, Brazil and the United States, shifted with the fortunes of war. In 1940, concerned about British intelligence reports that Nazi Germany was plotting a coup in Argentina and might launch an attack against Brazil, Roosevelt ordered the United States Army to prepare a secret contingency plan to rush 100,000 troops to protect coastal Brazil - from Belém to Rio de Janeiro. Not surprisingly, the Brazilian high command opposed any such plan as a threat to Brazil’s sovereignty.\(^1\) In the early years of the war, when Germany occupied most of continental Europe and part of North Africa, the United States urgently needed bases on the northeastern coast of Brazil to defend the hemisphere from possible German incursions and to ferry supplies and troops to the Allies in West Africa. Brazil had

\(^{1}\)F. McCann, 201-205.
considerable leverage during the early war period and successfully negotiated to obtain substantial military and economic assistance, in return for allowing the United States to establish bases on Brazil’s northeastern bulge. By mid-1943, however, after the Allies had driven German and Italian troops out of North Africa, South Atlantic transportation routes became more secure. Brazilian bases became less relevant to the war effort of the United States. Consequently, in an effort to become a full partner in the Allied war effort and participate in post-war international institutions as an equal allied power, Vargas decided it was in Brazil’s interest to offer combat troops to fight in Europe.\textsuperscript{183}

The “Battle for Rubber” followed a similar pattern. In 1942, after Japan cut off 90 percent of its rubber, the United States desperately needed to find alternative sources in the Amazon and elsewhere. The United States offered reliable but controlled prices for Amazonian crude rubber, with a commitment to buy the entire surplus.

The Roosevelt Administration was also willing to finance development programs relevant to its objective of stimulating the production of strategic materials for the war effort. To support the rubber program in Brazil, the United States financed the new Rubber Credit Bank (BCB), built airports and roads in Amazonian cities, brought in ships and seaplanes to transport workers and supplies, sent food and supplies to the Amazon to be sold at cost to rubber estates, and funded a new public health service (SESP). In addition, the United States financed the recruitment and transportation of thousands of “rubber soldiers” to work as rubber tappers in the Amazon (See Chapter III). The Roosevelt Administration’s approach was to work in partnership with the Vargas government, supporting state-led intervention in the Brazilian economy for the purpose of marshalling resources to increase wartime production.

\textsuperscript{183} Ibid. 343-346.
The Estado Novo was determined to strengthen the role of the state in the economy, but its efforts before World War II were directed primarily at industrialization in the Southeast. The “Battle for Rubber,” financed by the United States, gave the Estado Novo an opportunity to advance its statist objectives in the Amazon with international funding. Recruitment of migrant rubber soldiers to work in the Amazon advanced with Vargas’ policy of settling the Amazon with landless rural workers from the Northeast. Improving the transportation infrastructure of the Amazon furthered the Brazilian government’s objective of integrating the region with the rest of Brazil. The creation of SESP to bring public health services to the Amazon provided the federal government with opportunities to intervene in a sector that had previously been the responsibility of state governments, thereby expanding the Estado Novo’s influence in the frontier region.

By quickly creating several government agencies to implement the Washington Accords on rubber, Vargas demonstrated his government’s commitment to the United States to be a reliable wartime ally. Opportunistically, Vargas saw the “Battle for Rubber” as a means to obtain United States financing to begin to implement a state-directed “March to the West,” advancing state goals to colonize and develop of the Amazon. The United States government considered the alliance for rubber as part of a short-term strategy to secure an adequate rubber supply to win the war. The gap between the two governments’ perceptions of what each country would ultimately gain from the alliance for rubber provoked frustrations both sides. The United States measured success or failure in terms of increases in rubber production and exports. For the Estado Novo, on the other hand, the measure of success of the wartime rubber campaign was whether it advanced the integration of the vast Amazonian periphery into the Brazilian nation.
CHAPTER III

FROM FLAGELADOS TO “RUBBER SOLDIERS”

Introduction

To implement the rubber production agreements negotiated under the Washington Accords, the Brazilian government agreed to recruit 50,000 rubber workers from outside the region, with the objective of quickly increasing production to 50,000 tons per year, although Brazil’s total rubber production in 1941 was only 16,317 tons.184 A rubber survey conducted by the U.S. Department of Agriculture (USDA) estimated that each productive rubber tapper could produce one ton of rubber per year; in fact, annual production of a half a ton per rubber tapper was above average. The survey led the United States to set overly optimistic recruitment and production goals.185

The Brazilian government recruited around 30,000 rural workers – mostly from the drought-stricken Northeast – and transported them to the Amazon to extract wild rubber. To highlight that Amazonian rubber production was part of a strategy to win a world war, the Estado Novo used military discourse, calling the recruits “rubber soldiers,” whom the government “enlisted and “mobilized” to participate in the “Battle for Rubber” in the Amazon.

The Brazilian and the United States governments collaborated to increase rubber production by intervening directly to reform the archaic mercantile rubber economy.

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184 Dean, 93.
185 Ibid. In 1941, the U.S. survey team estimated that 100,000 tons of rubber could be extracted annually in the Brazilian Amazon, assuming a labor force of 100,000 tappers.
State participation in the Amazonian rubber economy during the 1940’s altered the dynamics among rubber tappers, estate owners and managers, and aviador trading firms. The Estado Novo assumed responsibility for the recruitment of tens of thousands of migrant laborers for the Amazonian rubber economy, in contrast to the Old Republic’s laissez-faire policies during the nineteenth–century boom. Amazonian elites contested government efforts to challenge their dominance over the rubber trade and cut into their profits.

Brazil’s alliance with the United States changed the lives of tens of thousands of impoverished Brazilians who had never met a North American or a German, but who enlisted to go to the Amazon as rubber soldiers to produce a strategic material for the Allies. This chapter examines impact of government participation in the recruitment, mobilization and transportation of rubber soldiers to the Amazon on the economic and social conditions of the rubber tappers.

To study the dynamics of the Battle for Rubber from the perspective of the rubber tappers, whose productivity was fundamental to the success or failure of the wartime enterprise, it is important to explore the following issues: Who were the rubber soldiers and what circumstances motivated them to leave their homes to confront the rigors of tapping rubber in an alien rainforest environment? In what ways did their “enlistment” and “mobilization” by the government influence their thinking about their status? To what extent did their socially-constructed identities as “rubber soldiers” change their relations with their bosses, the owners and managers of rubber estates? How did the Brazilian government use the Battle for Rubber to enhance the role of the state in labor-management relations Amazonian economy and was it successful in challenging the
power of the regional rubber elite? Did the wartime alliance for rubber transform the social and economic conditions of the rubber tappers and their families compared to those of the nineteenth-century rubber boom; or were conditions essentially the same? What strategies did the rubber tappers adopt to survive isolation, exploitation and arduous labor in a challenging environment? How did gender relations affect labor conditions on rubber estates during the “Battle for Rubber?”

The previous chapter examined the dynamics of forging a wartime alliance for rubber from the lofty perspectives of the Brazilian and United States governments. This chapter will focus on history from below by examining the impact of Allied wartime requirements for rubber on the lives of migrant rubber soldiers and caboclo rubber tappers and analyzing their survival strategies in the face of exploitation, malnutrition, disease, and isolation. All of the rubber soldiers recruited by the Vargas government were men, but this study will also examine the participation of women in roles that often contradicted the assumption in patriarchal Brazilian society that a woman’s place was in the home.

As primary sources for the voices and perspectives of the rubber soldiers on their lives, labor conditions and survival strategies, I use letters from rubber soldiers and their families to President Vargas, interviews with survivors of the wartime “Battle for Rubber” and their families, and field reports of U.S. Rubber Development Corporation (RDC) technicians. Although letters to Vargas signed by the rubber soldiers were often actually written by scribes or missionaries, they convey the rubber workers’ grievances about their conditions in their own simple words. Although interviews conducted with aging rubber tappers and their families many decades after the end of World War II might
raise questions about selective memory, their observations on the lives of the rubber soldiers and their families are similar to those reported by RDC technicians during World War II on conditions on the rubber estates.

Reports from RDC field technicians are valuable sources because they traveled throughout the Amazonian hinterlands to rubber estates to observe and report on conditions relevant to the urgent task of increasing rubber production. North American and Brazilian field technicians inspected remote rubber estates that no other outsiders had visited and interviewed both laborers and management. RDC field technicians were instructed to observe conditions and make recommendations on how to stimulate production and remove obstacles to increasing output. The RDC technicians’ reports are infused with their mission to revive Amazonian wild rubber production in time to make a difference to the Allies.

Drawing upon their experience in North American rubber plantations in Asia and Africa, RDC experts attempted to apply North American scientific management principles to the challenge of increasing production, but they came up against the inefficiencies of an extractive economy that was based on an exploitative trading system. Workers had little or no incentive to increase their productivity under a trading system designed to keep rubber tappers bound to the estates through their perpetual debts to their estates’ trading posts, where over-valued food and vital supplies were exchanged for their under-valued crude rubber production. Workers were obligated to remain on the rubber estates until they had settled their debts.
Reinventing the Rubber Tappers: Official Discourse and Bleak Realities

Responding to the wartime challenge of recruiting a dynamic labor force capable of quickly increasing rubber production, the Estado Novo decided to change the cultural image of migrant rubber tappers from the “flagellated” victims of the first rubber boom to heroic “rubber soldiers.” Rhetoric was important to Vargas, who tried to win the support of the working poor by incorporating them into the Brazilian nation as citizens with rights and obligations in exchange for their loyalty. Although the Vargas regime offered mainly rhetoric to the rural poor, his populist discourse offered them respect as citizens and a sense of inclusion in the project to modernize and develop the nation.

During the twentieth century, elite discourse on the cultural identities of rural laborers who migrated from the Northeast to the Amazon to tap rubber went through several changes, reflecting shifting attitudes towards this impoverished, mobile population. Traveling to the Amazon at the height of the rubber boom at the dawn of the twentieth century, Euclides da Cunha called the rubber tapper “the man who toils in order to enslave himself” because the harder he worked, the more debt he accumulated.186 Da Cunha’s portrayal of rubber tappers as exploited victims became the classic image of the rubber tappers of the Amazon rubber boom. He described desperately poor laborers from Northeastern Brazil, who were recruited by estate agents who “hooked” them with advance payments for their transportation and basic provisions, engulfing them in debt even before they reached the Amazon. Rubber tappers were required to sell their crude

rubber exclusively to their rubber estates at artificially low prices; if they sold their rubber to another trader, they were subject to exorbitant fines and physical beatings. Those who tried to escape and were caught by the rubber estate’s guards were severely punished, even tortured. Da Cunha visited rubber estates on the Amazonian frontier, where rubber barons had established their own fiefdoms and migrant rubber tappers were highly dependent on overpriced food and supplies from the estates where they worked. On the other hand, Barbara Weinstein’s study of the rubber boom shows that labor conditions were better in the state of Pará, the only Amazonian state in which local food supplies and distribution networks were adequate.187

The life of an Amazonian rubber tapper was extremely difficult, especially for indigent workers who migrated from the arid Northeast to work in Amazonian rainforests. Landless rural workers abandoned their homes in the backlands of the Northeast when periodic cycles of severe drought pushed them from poverty into destitution. Called “retirantes” (displaced persons) during the nineteenth century, they were desperate enough to accept offers of work on Amazonian rubber estates during the rubber boom, hoping to help their families survive by making a little money and returning to their homes in better times. Most of the estimated 300,000 migrant rubber workers recruited from the Northeast during the period 1850-1912 were peasants and cowboys (vaqueiros) living in rural communities. Together with their extended families, they produced their own food until severe drought forced them to migrate. They arrived at the rubber estates already indebted for their passage and supplies and tried to adapt to a grueling routine of isolated nocturnal work of making careful incisions in the bark of rubber trees and collecting the latex. They produced an export commodity that they

could not eat, trading their crude rubber for expensive imported food sold at their rubber estates’ trading posts.

After the rubber boom ended, yet another severe drought in 1915, coupled with inequitable socio-economic conditions, stimulated the exodus of thousands of rural families in Ceará to the cities. Responding to concerns that influxes of retirantes, renamed “flagelados” (flagellated victims) as a gesture of compassion, would spread disease to the healthy people of Fortaleza and other cities, Ceará’s state government placed them in “campos de concentração” (internment camps) where they lived as refugees in their own country. Influenced by Positivist theories, Colonel Barroso, the governor of Ceará, portrayed the act of “sheltering” the flagelados in camps as humanitarian, but as Lúcia Morales rightly emphasizes, the objective was to establish government control over a large population of unemployed, malnourished and unruly migrants and protect the rest of the population from contact with them. Once in the camps, the flagelados were not permitted to leave without permission of the authorities. Sanitary conditions were so squalid that many preferred to take their chances without government aid. Disease was rampant in the camps, leading to very high infant and child mortality.

Having concentrated the flagelados in a few controlled camps outside of the cities, the government of Ceará used the men as corvée labor on public works projects. Under the highly federalized Old Republic (1889-1930), state governments had wide autonomy in their internal affairs. State authorities allowed agents of the Amazonian commercial sector to enter the camps to recruit laborers to work in the Amazon and

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188 Morales, 134-145. Although Morales refers to the camps as “concentration camps,” their conditions were more comparable to those of internment or refugee camps.
189 Ibid.
transported recruits from the camps to ports of embarkation for ships bound for Belém and Manaus. Collaborating with private recruiting agents, Ceará’s government used internment camps to facilitate the exodus of excess rural workers of the Northeast to the sparsely populated Amazon.

In 1932, consistent with his centralizing policies, Vargas inserted the federal government as a major actor in managing growing populations of *flagelados*, who were suffering both from drought and from the effects of the global economic depression on the region’s agricultural exports. International demand for cotton, cacao and sugar from the Northeast declined in the 1930’s, depressing the economy of the backlands as well as the coastal region.

Drawing upon Ceará’s model, the federal government built internment camps in the Northeast to shelter and control the *flagelados*. Morales contends that the Vargas government’s objective was to place the “semi-civilized” *flagelados* in camps under the tutelage of the state to prepare them for migration to the Amazon. Concentrating indigent rural workers in camps enabled the government to organize and control their transfer. Using the discourse of humanitarian assistance to justify its resettlement policies, the Vargas government financed the transportation of *flagelados* to work in agricultural colonies in Pará and on rubber estates that began to revive production in the mid-1930’s, in response to demand for Amazonian rubber from a resurgent, re-arming industrialized Germany.

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190 Ibid, 144-152
191 Ibid. In 1938, Brazil exported 8,800 tons of rubber, of which 77 percent was shipped to Germany. See also Frank McCann, “Brazil and World War II, the Forgotten Ally: What did you do in the war, Zé Carioca?”
Brazilian government constructed several camps in the Northeast for rural migrant
workers and their families as they waited for transportation to the Amazon.

A report from the United States Embassy in Rio de Janeiro written in October,
1940 reveals that the image of migrant rubber tappers as *flagelados* had not changed
since the heyday of the Amazon rubber boom. Embassy Counselor William Burdett
traveled to the Amazon to investigate the potential for increasing rubber production.
Assessing the labor situation, he painted a dismal picture of the migrant workers: 192

> Over a period of one hundred years or more the *sertanejo* of the semi-arid
of northeastern Brazil … has sought the Amazon during the periodic
droughts which kill his cattle, dry up his wells and lay waste his fields. He
does not abandon the *sertão* (hinterland) until he is driven to it by hunger,
thirst and penury… His body is racked by syphilis, leprosy, tuberculosis,
and other diseases. His resistance to the new diseases he encounters in the
Amazon is almost nil… The Government occasionally sends feeble
contingents of laborers from Ceará. One group of 170 arrived at Manáos…
They were the most decrepit, undernourished, ineffectual looking
individuals one can imagine. Some of the rubber people saw them and
said most of them would probably die in the jungle. Obviously, they were
picked out as being undesirable labor at their homes.

Through this report, the embassy informed Washington about three obstacles to
increasing rubber production that would later hinder the wartime effort: the poor health
and physical fitness of indigent migrant workers from the Northeast; their vulnerability to
new diseases in the Amazon; and the tendency of the government to select unsuitable and
undesirable laborers to be transferred to the Amazon.

At the same time, rubber estate owners in Amazonas assured the United States
Consul in Belém that with an adequate labor supply and an assured market for their

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192 Labor in the Amazon Valley, October 25, 1940, Division of the American Republics, Department of
State, NARA, RG 84, Box 9.
rubber, they could increase rubber production several times over 1940 levels. Annual rubber production in the Brazilian Amazon reached approximately 14,000 tons in both 1939 and 1940, compared to a nadir in production of 4,500 tons in 1932, the worst year since the early 1870’s. The low figure in 1932 reflects the impact of the global depression on demand for rubber.

“Mobilization” of Rubber Soldiers to Support the Allies

Under the Washington Accords, the Brazilian government took the lead in recruiting, mobilizing, and transporting rubber laborers from the Northeast to the Amazon. Vargas hoped to impress Roosevelt with his energetic implementation of the Washington Accords, including the provisions on rubber. An obvious first step was to imitate the wartime Roosevelt Administration and create a plethora of special government agencies to implement the accords. In response to an offer by the United States to pay Brazil $100 per recruit to cover their transportation costs to the Amazon, SEMTA (O Serviço Especial de Mobilização de Trabalhadores para a Amazônia) was hastily organized to manage the process under the supervision of a ministerial Commission for Economic Mobilization.

SEMTA was responsible for recruiting, lodging and transporting the rubber soldiers to ports of embarkation for the Amazon. Led by Paulo de Assis Ribeiro, a civil engineer, SEMTA assembled a team of public health doctors, engineers and Catholic

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193 Rubber Production in the Amazon Valley, October 14, 1940, U.S. Embassy, Rio de Janeiro, NARA, RG 84, Box 9.
194 Dean, 170.
196 Martinello, 199, 236-254.
priests to head various departments at its headquarters in Fortaleza. SEMTA dispatched recruiters to the backlands of the Northeast, to try to persuade young rural workers to “enlist” as rubber soldiers. A drought in 1942 aided recruitment, which was supported by a propaganda campaign that portrayed the Amazon as a fertile land of plenty where it was easy to produce rubber and grow food. Posters and pamphlets showed healthy and robust rubber tappers collecting rubber from trees within sight of their houses, which were surrounded by crops and orchards.

SEMTA recruiters focused mainly on single men because families were not permitted to accompany the rubber soldiers to the Amazon. The official discourse about migrant rubber tappers changed to reflect the wartime emergency. No longer were they called flagelados; instead they became brave rubber soldiers who were mobilized to fight the Battle for Rubber. Recruiters emphasized that without an adequate supply of rubber, the Allies could not win the war. Potential recruits were promised by SEMTA officials that if they enlisted, they would be exempted from military service. Despite efforts of the Vargas government to associate compulsory military service with masculine “honor” and the rights and obligations of citizenship, young men dreaded the draft.\(^\text{197}\) Whenever SEMTA and its successor agency, CAETA, encountered difficulties in filling their quotas, they gave potential recruits the choice between enlistment as rubber soldiers or conscription into the army. To many, producing rubber in the Amazon sounded more appealing than marching and fighting under military discipline. In the words of a veteran rubber soldier, “In that time you chose: either you went to war or you went to Amazonas.

This was the time of mobilization. There was a great war. There was mobilization and I went."^{198}

Most rubber soldiers were recruited from the backlands of Ceará, Paraíba and Rio Grande do Norte, the same states that had provided the majority of migrant rubber workers during the nineteenth-century boom. Few northeasterners who voluntarily enlisted as rubber soldiers did so out patriotism or a desire to contribute to the Allied war effort. Most volunteers signed up because of dire poverty and lack of economic opportunities in the northeastern backlands.

Even for young men used to the extreme hardship and dire poverty of the rural Northeast, the journey was difficult. Transported by truck to port cities, they were lodged in camps (*pousos* or *hospedárias*) while they waited to travel to Belém by ocean-going ships. The *pousos*, successors to the “concentration camps” built for the *flagelados*, lacked even basic sanitation, due to shortages of clean water, bathrooms, toilet paper and laundry facilities. Ironically, during their stay at the camps, rubber soldiers received instruction on the basic principles of hygiene and nutrition. When new recruits arrived in the camps, they were issued a uniform of blue pants, a white shirt and a straw hat and their old clothes were taken away, but the *pousos* did not have adequate facilities to keep either themselves or their new uniforms clean. Although, their uniforms did not resemble military garb, it was easy for people to identify the rubber soldiers as they traveled to the Amazon.

SEMTA personnel were in charge of medical examinations, vaccinations, health care and sanitation in the camps. Under a contract with SEMTA, the Special Public Health Service (SESP) was responsible for the health care of the rubber soldiers during

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198 Morales, 107.
their journeys to Amazonian rubber estates. The arrival of government health care workers at the *pousos* seemed to augur improvements in the conditions in the camps, but instead, they focused on examinations, evaluations, and classifications. In military fashion, doctors and nurses examined the recruits to evaluate whether enlisted rubber soldiers were healthy enough to work in the Amazon rainforests, normally rejecting around ten percent of each group. Once they were approved for service, rubber soldiers were vaccinated against smallpox, yellow fever, tetanus and typhoid.

Influenced by the hygiene and eugenics movements that flourished under the Old Republic, SEMTA health workers recorded the physical characteristics, biological types, and racial profiles of the recruits. SEMTA subjected enlisted rubber soldiers to medical evaluations similar to those given to military conscripts. Although Estado Novo discourse officially rejected racism and embraced the concept of a national “racial democracy,” medical examiners carefully described the racial mixture each rubber soldier in their medical evaluation reports, drawing from the principles of eugenics. As in the nineteenth-century rubber boom, both the government and Amazonian elites considered mixed-raced Northeasterners descended from Indians and Europeans to be suited for work on the rubber estates because they adapted well to the culture of the rural Amazon and their racial backgrounds were similar to those of Amazonian *caboclos*.

SEMTA’s decision to employ nutritionists at the *pousos* reflected the Estado Novo’s public health objective of building a healthier nation of Brazilians, regardless of race. Nutritionists made recommendations about the food served in the *pousos*.

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199 SEMTA, “Esboço da estrutura de serviços no Amazonas para servir de base a informações e publicidade,” Fundo Paulo de Assis Ribeiro, Box 5, 63, Arquivo Nacional, Rio de Janeiro.
200 Ibid.
201 Beattie, 253-258.
concluding that the rubber soldiers were not getting the minimum of 3,000 calories needed to feed young working men.\textsuperscript{202} Their diets consisted mainly of manioc flour, which was cheap and abundant, but contained only carbohydrates. Rubber soldiers complained bitterly about the food, which was insufficient in calories and nourishment and sometimes rotten. Given that the rubber soldiers still had long, arduous journeys before them, after which they had to adapt to physically demanding work in an alien and unhealthy environment, malnutrition endangered both their health and their future productivity.

Concerned that a large population of single men would contract and spread venereal disease if they were allowed to fraternize with local women, SEMTA denied rubber soldiers freedom to leave the camps without permission.\textsuperscript{203} SEMTA doctors expressed concern that if recruits consorted with prostitutes, they might contract sexually transmitted diseases – syphilis was common - for which they would have to be either medically treated or discharged and sent home. The agency decided to confine the recruits to the camps to avoid bar-room brawls involving rubber soldiers over competition for women. SEMTA officials also worried that if the rubber soldiers were denied access to women, they might engage in taboo homosexual relationships. To deal with these issues, SEMTA enlisted the support of the Catholic Church to preach the moral virtues of sexual abstinence on the recruits and constructed a chapel and sports fields in every camp. According to SEMTA experts, a regime of hard work, sports and

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\footnotesize\textsuperscript{202} Morales, 291-302.
\footnotesuperscript{203} See Relato Confidencial de Observações feitas no Norte junto ao SEMTA, 8 de Abril, 1943, Fundo Paulo Assis Ribeiro, 4:17, Arquivo Nacional.
\end{flushright}
religious teachings would repress the sexual desires of the rubber soldiers, at least until they got to the Amazon.204

The Vargas government enlisted the Catholic Church to support the recruitment and training of rubber soldiers and appointed Father Hélder Câmara, a native of Ceará already well-known as a charismatic preacher, as its Director of Religious Assistance. Father Hélder’s spiritual odyssey included a political dimension, ranging from activism within the fascist Integralist Party in the 1930’s - which he later repented - to working for the Vargas government during the 1940’s, when the Catholic Church was closely aligned with the Vargas government. Committed to help the poor, Bishop Hélder later became a leader of the liberation theology movement in the 1960’s and 1970’s, and was a vocal defender of human rights during Brazil’s period of military rule (1964-1985).

To succeed in recruiting rubber soldiers in the backlands of the Northeast, SEMTA needed the support of parish priests, who had great influence in their communities. Government officials feared that if parish priests in the Northeast opposed the departure of their parishioners for the Amazon, the rubber program would be seriously jeopardized.205 SEMTA incorporated Catholic priests into its bureaucracy to provide religious services and moral guidance to rubber soldiers and their families. The government relied on the Catholic clergy to indoctrinate the rubber soldiers concerning their patriotic and moral duties to serve their country in the Amazon and provide for their families through their work on the rubber estates. Priests also cared for the religious needs of families left behind by the rubber soldiers, offering Masses, providing the sacraments, and encouraging them to wait patiently for the return of their loved ones.

204 Ibid.
205 Ibid.
Catholic priests recommended that families be allowed to accompany the rubber soldiers to the Amazon, but SEMTA overruled them on the grounds that the rubber campaign was part of an emergency effort to support a war.

During his service in SEMTA, Father Hélder was neither a missionary nor a parish priest; instead, he worked in a government bureaucracy, in which the interests of the Church were subordinated to those of the state. In a report to the Apostolic Nuncio, Father Hélder justified the clergy’s work to support the government’s recruitment program on the grounds that it was part of a war and would proceed with or without the participation of the Church. The collaboration of Catholic clergy with SEMTA was part of a partnership of the Brazilian Church with the Vargas government, through which the Church provided moral support to the authoritarian government’s policies and, in return, the government reversed many secularist measures of the Old Republic.

Influenced by the Ultramontane movement in Rome, conservative Catholic cardinals and bishops in Brazil considered Vargas’ vision of a centralized corporatist state to be compatible with the Church’s doctrine of papal authority, orthodoxy and social unity.

The clergy worked within the SEMTA bureaucracy to register the religious faith of the recruits and indoctrinate them in Christian values. Priests and health workers collaborated with the state to keep the rubber soldiers occupied in the camps, filling their time with work, sports and spiritual guidance. Both the Estado Novo and the Catholic Church held the view that through religious and moral indoctrination, combined with

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206 Morales, 216-217.
208 Levine, Father of the Poor? 35-37.
209 Morales, 215-219
improvements in public health and hygiene, Brazil’s rural poor could be lifted out of their traditional “backwardness.”  

Concerned about rumors of Protestant missionary activity in the Amazon, Father Hélder hoped to use SEMTA resources to strengthen the presence and activities of Catholic churches and missions in the region. He traveled to the Amazon for SEMTA in early 1943, visiting not only the cities of Belém and Santarém, but also prelatures on the Xingu River, Upper Solimões River, and Rio Negro, where he urged the clergy to support the Brazilian nation (*patria*) during the wartime emergency and uphold Christian traditions in this remote region. Reporting on his trip to the Apostolic Nuncio, Father Hélder recommended that SEMTA be authorized to extend religious assistance to rubber soldiers on Amazonian estates, but the agency’s financial resources were stretched and SEMTA’s influence never extended much beyond Belém. Due to the wide dispersion of individual rubber estates along remote Amazonian tributaries, rubber tappers rarely met a priest or missionary. Nor did the rubber elite invest in building churches or chapels on their estates. The separation of migrant rubber soldiers from the pillars of their lives in the Northeast - family, church, and community - made their lives in the Amazonian rainforests very lonely and their chances of survival problematic.

Amazon Bound!

SEMTA and its sister agency, SAVA (*Superintendência para o Abastacimento do Vale Amazônico*) were unprepared for the challenges of transporting of thousands of rubber workers to the Amazon.

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210 Ibid.
211 Ibid.
rubber soldiers to the Amazon under pressure from the United States to expedite their transfer to the rubber estates. In the tradition of “para o norteamericano ver,” – showing the United States eye-catching but superficial results - the Brazilian government tried to move rubber soldiers to the Amazon rapidly, without adequately planning the logistics of transporting thousands of men to the Amazon. The migrant workers had to bear the consequences of the government’s mismanagement.

Rubber soldiers recruited in the Northeast embarked on arduous journeys of thousands of miles, beginning with an overland trip to Fortaleza, the capital of Ceará, where they stayed in pousos awaiting transportation to the Amazon. During the early years of the Battle for Rubber, threats of German submarine attacks on Brazilian ships were high. To minimize dangers on coastal shipping routes rubber soldiers were transported by truck and train from Fortaleza west to São Luiz do Maranhão, where they boarded ships bound for the Amazon. There were no roads connecting São Luiz and Belém; therefore, the rubber soldiers had to travel by ship along the Atlantic coast over a distance of over 300 miles. SEMTA had originally proposed the construction of a second, more southerly overland route from Ceará to Pará, under a plan that would have used the rubber soldiers as construction workers to repair and improve old roads and bridges as they traveled by truck over 1,300 kilometers to São Luiz do Maranhão. Fortunately for the rubber soldiers, the plan was not implemented, but this project to exploit them to improve overland routes in the Northeast indicates that SEMTA considered the rubber soldiers to be subject to corvée labor for nation-building projects as they marched to the Amazon.  

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212 SEMTA, “Esboço da estrutura de serviços no Amazonas para servir de base a informações e publicidade,” Fundo Paulo Assis Ribeiro, Box 5, 63, Arquivo Nacional.
Rubber soldiers complained that they sometimes traveled overland all day without water or food. In one incident, a group of four hundred rubber soldiers dispatched by train from Piauí to São Luiz do Maranhão were promised a meal at a stop in the town of Caixas. Arriving hungry from traveling all day without food, they were met by the mayor, who informed them there was no food available. The rubber soldiers rioted and invaded the local market, taking food and destroying stalls.\footnote{Morales, 269-270.} Townspeople blamed the rubber soldiers, but it was SEMTA’s failure to arrange for adequate provisions that provoked the riot and looting. In a 1943 report to its superiors in the Economic Mobilization Commission, SEMTA describes the “precarious situation” of the railroad line linking Piauí with São Luiz do Maranhão, including faulty equipment, fuel shortages and sporadic food supplies, as leading to “small disasters.”\footnote{Relato Confidencial de Observações feitas no Norte junto ao SEMTA, 8 de Abril, 1943, Fundo Paulo Assis Ribeiro, 4:17, Arquivo Nacional.} The SEMTA report mentions food shortages in the region but dismisses - as unfounded - complaints from local populations that their scarce meat supplies were taken by SEMTA to feed traveling rubber soldiers instead of their own communities.

This incident exposes tensions between the federal government and local authorities in the Northeast over responsibilities for feeding the rubber soldiers during a period of wartime food shortages. SEMTA officials failed to send sufficient supplies of food with the rubber soldiers, assuming they could be fed in local towns. Wartime interruptions of maritime shipping from southeastern Brazil due to threats of German submarine attacks caused serious food shortages in both the Northeast and the Amazon. The mayor’s refusal to share the town’s food supply with the hungry rubber soldiers
provoked riot and looting, reinforcing the stereotype of migrant workers as a dangerous rabble.

In São Luiz do Maranhão, rubber soldiers boarded ocean-going ships bound for the Amazon, disembarking in Belém or Manaus before continuing to their rubber estates. They traveled in steerage together with cattle, pigs and chickens. Having no places to sit, they ate in their hammocks. Many rubber soldiers became ill from the unsanitary conditions and a few jumped ship and deserted.\textsuperscript{215}

When the rubber soldiers arrived in Belém and Manaus, they came under the supervision of SAVA. They traveled up the Amazon River system to the rubber estates in steamboats operated by SNAPP (\textit{Serviço de Navegação e Administração do Porto do Pará}). Contingents of rubber soldiers traveled thousands of miles to Acre, where the finest wild rubber trees were found.

At the end of their arduous journeys, some rubber soldiers arrived at their assigned rubber estates only to be told by the managers that they had not requested new laborers and could not feed them. Faced with such rejections, SAVA agents simply abandoned the rubber soldiers at those estates, leaving them to fend for themselves in an unfamiliar environment where food was scarce and transportation expensive. The luckier ones made their way to Amazonian cities and became part of their growing marginal urban populations. The unlucky ones probably starved in the forests.

During their visits to rubber estates, Rubber Development Corporation (RDC) field technicians found that rubber estate managers were often reluctant to accept migrant rubber soldiers, not only because they were novices, but also because they were aware of their labor rights and might incite other rubber tappers to protest their exploitation. An

\textsuperscript{215} Morales, 264-265.
RDC technician who examined labor conditions in 1943 on the Rio Antimary in Acre reported that “rubber estate managers were reluctant to use migrant labor provided by the government, because they are independent and unruly.” Estate owners and managers preferred Amazonian *caboclo* rubber tappers, who were experienced workers and rarely questioned unfair practices at the trading posts.

Were these deplorable conditions evidence of something more deliberate than inefficiency and poor planning by the government agencies responsible for the transportation of the rubber soldiers? Mismanagement was rampant, due to the haste with which the recruitment program was executed in order to meet wartime requirements. Officials representing the plethora of new government agencies created to implement the rubber accords failed to coordinate and cooperate with each other.

Despite the patriotic wartime discourse, migrant rubber soldiers were still regarded by the government as people from the bottom of the social ladder, who should be grateful for any job opportunity, including arduous labor in the Amazon. The rural poor had always lived with malnutrition and inadequate housing and sanitation; therefore, SEMTA and SAVA officials assumed that they could bear discomfort during their journeys, given that a war effort required sacrifices.

Lúcia Morales argues that government officials viewed the rural poor from the Northeast – including rubber soldiers - as semi-civilized people, suitable for work in the Amazonian wilderness, but not “advanced” enough for industrial or agricultural jobs in the Southeast. To Morales, putting the rubber soldiers in steerage together with cows and

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216 Report on field trip on Rio Antimary, June 28-July 30, 1943 by Marl G. Mayer, Reports on Field Trips in the Amazon Area 1943-1944, RDC, Records of the Reconstruction Finance Corp (RRC), NARA, RG 234, Box 01.
pigs clearly illustrated the attitude of the governing elite toward the rural poor.\textsuperscript{217}  
Official discourse emphasized respect for the patriotism of the rubber soldiers but the government had no intention of using its limited financial resources to improve their traveling conditions.

SEMTA did not limit its recruitment efforts to the Northeast. In its first months of operation, SEMTA enlisted 1,036 men in Rio de Janeiro, including urban workers, vagrants, and former convicts, most of whom were not suited for labor in Amazonian rainforests.\textsuperscript{218} About half of them were originally from the Southeast and the rest had migrated to the capital from other regions. Some enlisted as rubber soldiers for adventure, others for free passage to a “land of plenty” as portrayed by official propaganda, and still others because they were threatened with military conscription or jail. Many deserted in Belém and Manaus, where their itinerant lifestyles and rowdy behavior in local bars earned them the nickname \textit{arigós}, folkloric migratory birds from the Northeast. Surprisingly, 78 percent of this group was classified as literate or semi-literate, but recruiting officials often concluded a person to be literate if he could sign his name.\textsuperscript{219} Popular opinion in the Southeast about the conditions of rubber labor in the Amazon was so negative that SEMTA had to resort to recruiting rubber soldiers from the prisons of Sao Paulo, Rio de Janeiro, Belo Horizonte and Porto Alegre.\textsuperscript{220}  

As reports of SEMTA failures reached higher government authorities in the capital, a joke circulated that was attributed to RDC officials, “Better to lose the war than

\textsuperscript{217} Morales, 265-266.  
\textsuperscript{218} Serviço especial de classificação e seleção de trabalhadores para a Amazônia, Albergue da Boa Vontade, Prefeitura do Distrito Federal, February 24, 1943, Fundo Paulo de Assis Ribeiro, Box 5, Arquivo Nacional.  
\textsuperscript{219} Ibid.  
continue to finance SEMTA.” In September 1943, the government disbanded both SEMTA and SAVA and replaced them with a new agency, CAETA (Comissão Administrativo de Encaminhamento de Trabalhadores para a Amazônia). During its ten months of existence, SEMTA sent 10,123 rubber soldiers to the Amazon.

Between September 1943 and December, 1945, CAETA sent 16,235 rubber soldiers and 8,065 dependents to the rubber estates. The largest contingent of rubber soldiers (6,163) went to estates in Amazonas (Table 1). Most of the rubber soldiers worked in the western Amazon, where the productivity of Hevea brasiliensis trees was higher than in Pará, where Hevea trees - normally productive for around fifty years - had been depleted during the first rubber boom of 1850-1912.

<table>
<thead>
<tr>
<th>TABLE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement of Rubber Soldiers Recruited by CAETA</td>
</tr>
<tr>
<td>September 1943 to December 1945</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amazonas</th>
<th>Para</th>
<th>Guaporé (Rondônia)</th>
<th>Acre</th>
<th>Rio Branco (Roraima)</th>
<th>Returned Home</th>
<th>Died</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,163</td>
<td>3,715</td>
<td>2,721</td>
<td>1,525</td>
<td>264</td>
<td>693</td>
<td>24</td>
<td>15,105</td>
</tr>
</tbody>
</table>

Source: Relatório da CAETA, December, 1945. In addition, under an agreement with CAETA, the Central Brazil Foundation recruited and placed 506 rubber tappers in the Tapajós River Valley. Of the 16,235 rubber soldiers recruited by CAETA, 624 are not accounted for. They may have deserted en route to the rubber estates.

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221 Martinello, 245.
222 Report of CAETA, December, 1945, Oswaldo Aranha Collection, CP-DOC/FGV.
223 Ibid.
Dependents of the Rubber Soldiers

SEMTA sent only men to the Amazon, while CAETA allowed families to accompany rubber soldiers to the rubber estates. A minority of SEMTA recruits was married, and the agency provided a minimal amount of financial and social assistance to wives and children who stayed behind while their husbands worked as rubber soldiers in the Amazon. Families of rubber soldiers were given the choice of living under strict supervision in unsanitary and over-crowded SEMTA camps or receiving meager government financial subsistence payments until their husbands arrived in the rubber estates. Upon arrival at the rubber estates, rubber soldiers were supposed to be given the option of sending money regularly to their families by debiting their accounts at their rubber estates. Rubber estates were to forward the allotted money through the Rubber Credit Bank to the families of their rubber soldiers, but this measure was never implemented. Rubber tappers received credit, rather than cash, for their production. The debt-credit trading system at the rubber estates virtually ensured that the accounts of rubber tappers were always in the red; therefore, the rubber soldiers had no surplus cash earnings to send. If rubber tappers occasionally sold enough production to earn a surplus on their accounts, they would simply be credited for future purchases for food and supplies. Consequently, the wives and children left behind by married rubber soldiers faced destitution.

Families of rubber soldiers appealed to President Vargas to request his personal intervention to provide them with welfare assistance. Vargas cultivated a benevolent

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224 Ibid.
225 Secreto, 96-98.
image as “father of the poor” and encouraged the masses to write to him.²²⁶ Fifty-four wives, mothers, sisters and girlfriends of rubber soldiers from Rio Grande do Norte sent a telegram to Vargas in June, 1944 to complain that, after a year, CAETA had cut off their minimal financial assistance, provoking a “calamity” for the families of the rubber soldiers.²²⁷ Using patriotic discourse, the women wrote that poverty had forced their men to go to the Amazon where they were serving their country by “producing rubber for the victory of the United Nations.” The telegram claimed that 4,500 dependents of brave rubber soldiers serving on the Amazonian frontier would go hungry if President Vargas did not take action to reinstate their financial aid. The women lamented that they had not heard from their men since they departed and did not know if they were dead or alive. The President’s office referred the communication to CAETA, which rejected the complaint, declaring that the women acknowledged they had lived in misery even before their men left for the Amazon; therefore CAETA did not consider itself responsible for their poverty.²²⁸

Consistent with its policy of allowing families to accompany rubber soldiers, CAETA offered the wives free transportation to the Amazon to join their husbands, but neither the families nor CAETA knew the locations of the rubber estates where their husbands and fathers worked. The government considered that its responsibility for the welfare of the rubber soldiers ended upon their arrival at the rubber estates. Its failure to keep track of the whereabouts of the rubber soldiers produced disastrous consequences, permanently separating workers from their families. To the destitute families left behind by the rubber soldiers, the “father of the poor” had become the godfather of their poverty.

²²⁶ See Levine, *Father of the Poor?* 153-158.
²²⁷ Telegram to President Vargas, June 20, 1944, Fundo Paulo Assis Ribeiro, Box 5, Arquivo Nacional.
²²⁸ Secreto, 108-110.
Into the Rainforests Armed with Labor Contracts

Each rubber soldier arrived at the estates armed with a labor contract issued by the Estado Novo, to which his photograph was affixed as identification. The contracts were the first attempt by the state to define the rights and obligations of both the rubber soldiers and the rubber estate owners (seringalistas) and to assert its legal right to mediate between labor and management in the extractive rubber production industry. The contract designated the Justiça do Trabalho (Labor Courts) as the venue for resolving disputes between the parties.

Under the contract, the Brazilian federal government was responsible for providing transportation, lodging, medical and religious assistance, as well as basic clothing and supplies, to the rubber soldiers free of charge during their voyages to the Amazon. SEMTA also assumed obligations to shelter and support the families of rubber soldiers while they traveled to the rubber estates.

Rubber soldiers were obliged to work on the rubber estates for six days a week during the entire year, for a minimum daily salary of seven cruzeiros with food or ten cruzeiros without food. Rubber tappers were permitted to grow subsistence crops on one hectare of land and hunt wild animals for their own consumption. During the very wet season when rubber was not produced, rubber soldiers were required to work on tasks necessary for the operation of their rubber estates. To support the war effort, the RDC insisted that the rubber soldiers devote the entire year to rubber production work, rather than...
allowing them autonomy to engage in traditional off-season occupations of brazil-nut
gathering and subsistence farming.

In an effort to prevent the rubber soldiers from sinking into debt peonage, the
contracts stipulated that rubber soldiers were to be credited for sixty percent of the selling
price in Belém or Manaus of all the rubber they produced. They were required to sell
their rubber exclusively to their rubber estates, however, and any infraction was
considered fraud, subject to police action and criminal penalties. The contracts obligated
rubber soldiers to work on the estates for two years, but they too were not permitted to
leave their rubber estates until they settled their accounts.

Seringalistas were obliged to open trails (estradas) around swathes of
rainforests, delineating the areas of rainforest in which each rubber soldier was to extract
rubber, and help the workers to build their huts and latex-smoking sheds once they
arrived at the estates. Rubber bosses employed mateiros - experienced Amazonian
woodsmen, many of whom were Indians – to locate Hevea brasiliensis trees and hack out
simple trails for the rubber tappers to follow. The contract stipulated that seringalistas
were to advance food and basic supplies to their rubber soldiers on a monthly basis at
cost, without making profits from these transactions. The rubber estate was required to
enter all debits for supplies and credits for rubber sales, including bills of sale, into the
account book of each rubber soldier.\textsuperscript{230}

The labor contracts were unenforceable on the Amazonian rubber estates and all
three parties knew it. Seringalistas ignored provisions of the contracts without fear of
penalties. The Brazilian government had neither the presence nor the resources in the
Amazonian hinterlands to inspect the accounts of the rubber soldiers and verify if they

\textsuperscript{230} Ibid.
were credited correctly for their production and debited for their food and supplies without mark-ups. Inequitable debt-credit relationships continued because rubber soldiers were required to sell all their production exclusively to their rubber estates and to remain on the estates until they settled their accounts. *Seringalistas* who complied with the contracts by correctly crediting their rubber tappers for sixty percent of the value of their production simply raised the prices of basic foods and supplies at their trading posts to maintain their profits margins and keep their workers in debt.

RDC field technicians reported these abuses whenever they observed them during their inspections of rubber estates, but they had no enforcement powers. Visiting rubber estates in the Upper Solimões River region, RDC technicians concluded that the rubber soldiers would not accept the mistreatment that local rubber tappers endured. “They know better than to sit and take it! The migrant laborers will prove satisfactory if contracts are respected on the part of the *seringalistas* and if enough supplies are provided.”

RDC technician Merl Mayer predicted that the continuation of the inequitable trading system would undercut the mission to increase wartime rubber production, arguing that “the price of rubber must be greater than the cost of his food, regardless of how that end is achieved – by increasing the price of rubber, lowering the cost of necessities, or creating some system for economic distribution that will eliminate those gross intermediate profits. “As long as the Rubber Development Corporation means only

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231 New Area Report on Upper Solimões Region by Constantine J. Alexopoulos, and Herculano Caldeira Filho, March 25, 1944, Reports on Field Trips in the Amazon Area, 1943-1944, RDC, Reconstruction Finance Corp (RFC), RG 234, Box 01, NARA.
increased profits for seringalistas and no help for the seringueiros, there is going to be only a limited increase in rubber production…”

Why did the Estado Novo bother to issue labor contracts when it was obvious that they could not be enforced? Government recruitment of the rubber soldiers presented an opportunity for the corporatist state to begin to project its authority over labor-management relations in the Amazon. Through the labor contracts, the Vargas government signaled to the Amazonian rubber elite that the era of impunity and personal fiefdoms on the frontier was waning and that the Estado Novo intended to play a more assertive role than the Old Republic in mediating economic and class interests in the region. In the rural hinterlands of Brazil, where traditional patron-client relations still prevailed, Vargas’ labor laws were largely rhetorical and intended to generate the political support of the masses for the government. Official discourse was important to the Estado Novo, even when it was empty rhetoric.

The labor contracts were also designed to meet the concerns of Roosevelt Administration officials, who encouraged the Brazilian government to take measures to improve the conditions of the rubber tappers. The RDC considered the chronic indebtedness of the rubber tappers to their trading posts to be a serious obstacle to increasing rubber production. New Dealers, led by Vice President Henry Wallace, were ideologically committed to improving the social conditions of the rural poor and urged the RDC to work with the Brazilian government to break the stranglehold of the aviator trading system that left rubber tappers chronically in debt and vulnerable to malnutrition. North American experts asserted that taking a combination of measures to guarantee a

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232 Reports on Field Trips in the Amazon Area 1943-1944, RDC, RFC, RG 234 Box 01, NARA.
real income to the rubber workers, provide them with cheaper food and supplies, and improve public health in the rubber estates would stimulate significant increases in rubber production.\textsuperscript{233}

Although the labor contracts were largely ignored by \textit{seringalistas}, the participation of both the Brazilian and United States governments in the Battle for Rubber seems to have contributed to a decline in incidents of torture and violent abuses against rubber tappers. As the use of violence as a means of labor control diminished, rubber workers gained more mobility to escape relatively unharmed if conditions became intolerable, but they were technically in violation of their government labor contracts if they left without settling their debts.

Veteran rubber soldiers reported relatively few incidents of violent physical abuse on the rubber estates; instead, most of their complaints focused on unfair terms of trade, malnutrition, and disease.\textsuperscript{234} Reports from RDC field technicians and anecdotal evidence from rubber soldiers suggest that the practice of torturing rubber tappers was waning during the 1940s. Veteran rubber tappers credited Vargas’ labor laws for protecting them against torture and other violent abuses. During their visits to rubber estates dispersed throughout the Amazon, RDC technicians heard many serious complaints from rubber tappers about their labor conditions, but physical abuses were not among them. It is possible that rubber tappers were intimidated by their bosses, but they were not inhibited in alleging that certain \textit{seringalistas} were cheating the Vargas government - charges that could have harmed their bosses’ relationships with the government much more than allegations of beating their workers.

\begin{flushright}
\textsuperscript{233} Ibid.
\textsuperscript{234} Martinello, 285-291.
\end{flushright}
In 1943, rubber estate owners, communicating through the Commercial Association of Amazonas, complained to Interventor Álvaro Maia (Vargas’ personal appointee as governor of Amazonas) that rubber soldiers were fleeing the estates without settling their accounts, in violation of their government-issued contracts. Seringalistas urged the government of Amazonas to use its authority to stop them from escaping.

Instead of acting with their customary impunity to force rubber soldiers to remain on the estates against their will, seringalistas of Amazonas asked the state government to intervene.

What prompted this change of behavior from the seringalistas? During the nineteenth-century rubber boom, guards employed by rubber barons routinely used beatings and torture to punish and deter escape attempts. Direct government participation in providing migrant labor for the Battle for Rubber gave the government a seat at the table in trying to resolve labor-management disputes. The rubber elite looked to the Interventor, as Vargas’ personal representative in Amazonas, to help to resolve their labor problems with the rubber soldiers recruited by the government. Furthermore, seringalistas were ambivalent about using rubber soldiers as their laborers because they were novices in their work and yet insisted on their labor rights as specified in their contracts. Seringalistas lost only minor investments in their labor force when rubber soldiers fled. Unlike during the rubber boom, the government assumed responsibilities for the recruitment and transportation of migrant rubber tappers, delivering them to the rubber estates at no cost to the seringalistas. If they escaped, the Brazilian and United States governments - not the seringalistas - lost their investments in recruitment and

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transportation. The rubber elite estate owners considered the flight of rubber soldiers from their estates to be as much the government’s problem as their own.

By militarizing the identity of the “rubber soldiers,” Estado Novo discourse implied that they were on loan from the government to the rubber estates for the wartime emergency and remained accountable not only to the *seringalistas*, but also to the state. Furthermore, *seringalistas* depended upon Rubber Credit Bank loans to finance their investments in rubber production and did not wish to antagonize their creditors, the Brazilian and United States governments, by reverting to practices of torture that had contributed to the notoriety of the nineteenth-century rubber barons. Most of the rubber elite of the 1940’s no longer saw themselves as rubber barons, preferring to be regarded as modern businessmen by the Brazilian government and United States officials.

**Survival Strategies: Voices from the Battle for Rubber**

After their arrival at the rubber estates, rubber soldiers had to adapt quickly to working alone in their assigned swathes of rainforests, where they confronted unfamiliar wildlife and occasional attacks by predators. Normally, each rubber tapper was responsible for collecting latex from rubber trees on two or three *estradas*, or elliptical trails, where around 100 to 200 Hevea trees were dispersed among other species. After midnight, rubber tappers began their rounds, making precise diagonal cuts in the barks of Hevea trees and attaching bowls to collect the latex that dripped from the slashed bark. Hevea trees “bled” more at night than during the day and the rubber tappers returned the next day to collect the latex that had dripped into the bowls. Upon returning to their huts,

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236 Weinstein, 16.
the tappers coagulated the latex by smoking it over a fire of palm nuts and rotating it on a
stick into large balls. The following day, each rubber tapper repeated the same tasks
on a second *estrada*. These labor-intensive tasks left rubber tappers with little time to
provide for their own subsistence. Living in isolated huts dispersed in the rainforests,
migrant workers initially depended almost entirely on overpriced food sold at their rubber
estates, falling into debt and suffering from malnutrition.

Survival in the rainforests was difficult for migrant rubber soldiers, who had to
develop strategies to adapt to an alien environment. Those who formed unions with local
women had the best chances because Amazonian women knew how to plant manioc and
other crops and taught the newcomers how to hunt and fish in the region’s various ecos-
systems. Their women cared for them when they became ill with malaria and other
tropical diseases, using traditional remedies derived from the forests. Family life
assuaged the loneliness of life in the rainforest and provided rubber tappers with children
who helped with the work as they grew up.

I interviewed two sons of rubber soldiers who agreed to share their memories of
their father’s experiences as migrant rubber tappers during the 1940’s. Their stories
provide personal insights on the survival strategies of the migrant rubber workers.

Jaime Henrique de Sousa, who was born in 1939, is the son of a World War II
rubber tapper. Jaime’s father, Luiz, migrated to Acre in the western Amazon, from
Ceará in 1938, at the age of eighteen, during a time of “calamity” and drought in the
Northeast and worked on a large rubber estate on the Rio Acre. He decided to migrate to
the Amazon because the price of rubber was high and the Vargas government offered free

\[237\] Ibid.
\[238\] Interview with Jaime Henrique de Sousa, Palacio de Rio Negro, Manaus, July 20, 2006.
transportation for men willing to tap rubber.²³⁹ Later, he heard people talking about World War II, but was not aware of the purpose of the Battle for Rubber.

Luiz worked in Seringal Antimary, a large rubber estate in Acre that employed 120 rubber tappers. He was responsible for three estradas, collecting rubber two days a week on each estrada. Jaime recalled that the rubber estate produced the best quality rubber (Acre fina), which was transported by ship during the high-water season. Like other rubber tappers, Luiz Henrique de Sousa had to acquire his supplies on credit, and he became permanently indebted.

Most rubber tappers on the estate were born in the rainforests and had no formal education. They were not literate, had never seen money, and did not understand how balance scales measured the weight of their rubber production or the food and supplies they bought. They could not verify their accounts and were cheated because the rubber bosses were “greedy and cruel.” Luiz de Sousa knew the basics about weights, prices and money and he helped his co-workers to understand the system. Rubber tappers arriving from the Northeast told their native Amazonian co-workers about new labor rights decreed by President Vargas. (Seringalistas repeatedly complained to RDC experts and Brazilian authorities that the rubber soldiers were “bad influences” on their Amazonian-born laborers.)

Jaime de Sousa recalled that rubber tappers who tried to escape from their estates without settling their accounts were pursued by the “coronel de barranco” (bush captain), and, if caught, subjected to whippings and torture on the tronco, stocks made out of wood with holes for the feet, and exposed to the sun without water or food. Many died and a

²³⁹ The price of rubber was high in 1938 because Germany was trying to acquire stockpiles of natural rubber from Brazil.
few were killed outright as exemplary punishment. According to Sr. Jaime, labor laws decreed by President Vargas in the 1940’s put an end to these abuses, but he observed that government agencies did not enforce the laws in the Amazon until the 1950’s.240

Jaime believed that before Vargas adopted labor laws to protect workers, it was “legal” to torture and kill of rubber tappers. His perspective is interesting because it reflects the realities on the ground. Although torture and beatings were not legal, those responsible were not jailed or prosecuted for such atrocities. Compared to the impunity that prevailed during the rubber boom of 1850-1912, however, the intervention of the Brazilian and United States governments in the Amazonian economy during the Battle for Rubber influenced the rubber elite to moderate some of their worst excesses.

In isolated frontier regions, however, rubber estate bosses acted with more impunity than in rubber estates within reach of the government. Francisco de Almeida, a rubber soldier from Ceará, fled his rubber estate in Acre, declaring later in an interview that “this business of tying up rubber tappers and putting them into the tronco is not for me!”241 During the 1940’s, some indigenous groups experienced violent raids and forced recruitment as tappers by rubber estate operators in remote frontier regions where labor was not available. (See Chapter IV for a discussion of Indian labor.)

How did Luiz Henrique de Sousa manage to survive in the rainforest? Luiz met and formed a union with Raimonda, a young Indian girl who lived a semi-nomadic life within her indigenous community of hunter-gatherers. When Luiz met her, Raimonda was living in a maloca (communal hut) not far from his rubber estate. Jaime described her indigenous community as “civilized” because they spoke a little Portuguese and were

240 Jaime de Souza was referring to the Consolidation of Labor Laws - Consolidação das Leis do Trabalho, or CLT, which systematized Brazilian social and labor legislation in 1943.
241 Martinello, 289.
willing to converse with “brancos.” Luiz befriended Raimonda’s father by offering him gifts of simple metal tools. (Nomadic indigenous groups appreciated gifts of metal tools because they rarely had enough cash or tradable goods to exchange for tools.) He soon agreed to bless their union and henceforth considered Luiz as part of his family. Her father’s consent to their union is somewhat surprising, given that marrying into the same ethnic group was important in indigenous societies. Perhaps her family thought that a kinship relationship with a branco from a neighboring rubber estate would provide his community with some degree of protection against raids on their lands by rubber estates as well as access to metal implements.

Raimonda moved to Luiz’ hut on his rubber estate and began a long process of assimilation into the lowest rungs of “civilized” Brazilian rural society. Jaime recalled that it was difficult for his mother to adapt to the customs of the “brancos” - including wearing clothes. Used to living within a community, she suffered from isolation living in the forest in a nuclear family. Both Luiz and Raimonda continued to visit her family in their maloca, maintaining their ties to her indigenous community.

Luiz’ life quickly improved through his marriage to Raimonda. She planted manioc and other crops and taught him about indigenous techniques of hunting and fishing in the Amazonian environment. When their children became ill, Raimonda cured them with traditional herbal medicines. Malaria was common, and Luiz received Atabrine tablets without charge from his rubber estate manager. According to Jaime, neither public health workers nor RDC technicians nor missionaries visited their rubber estate.

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242 “Brancos” are white people, but in the Amazonian hinterlands, it means anyone who is not an Indian.
Jaime recalled that during the 1940’s, hostile Indians sometimes attacked rubber estates in Acre, killing isolated rubber tappers and their families. They did not bother his father because of his connections through his Indian wife’s family. Through reprisal attacks organized by rubber estates, hostile indigenous groups were pacified and “civilized.” (RDC field technicians also mentioned occasional attacks by Indians on frontier rubber estates.)

After World War II, Luiz de Sousa worked on several different estates until he died, but he never was able to settle his accounts. Under the rubber labor system, the owner or manager of another rubber estate could offer to pay off the debts of rubber workers he wanted to hire, debiting them to their accounts on the new estate where they were taken to work. Debts of rubber tappers were traded as commodities and rubber workers were compelled to follow their debts, whether or not they wanted to move to another estate. Sometimes, rubber tappers benefited from this system by persuading other estate owners to hire them away from bosses they did not like.

Luiz and his entire family of eleven survived this harsh system. Luiz greatly increased his chances for survival by his union with an Indian who had grown up in the Amazonian hinterlands. While still a small child, Jaime helped his father make his rounds of the estradas during World War II. He too became a rubber tapper, working on the estates until 1980, when he decided to leave for Manaus without settling his accounts to seek better opportunities to support his own large family of thirteen. Jaime explained that although his seringalista was angry when he left, he did not try to use force to stop him, “porque ja não era tempo do tronco” (the era of torture had passed).

Reports on Field Trips in the Amazon Area 1943-1944, RDC, RG 234, Box 01, NARA.
Unions between Indians and “cearenses” (all migrant rubber tappers from the Northeast were called cearenses because Ceará contributed so many migrants to the Amazon) contributed to the richness of Amazonian caboclo culture, drawing from both indigenous Amazonian and Northeastern traditions. Migrant rubber tappers who married Amazonian women rarely returned to their original homes; instead they assimilated into Amazonian caboclo culture. Their children became rubber tappers, brazil-nut gatherers, fishermen, subsistence farmers and river traders or migrated to the cities to look for better opportunities. Caboclos practiced a form of popular Catholicism combined with indigenous Amazonian traditions. Their diets included beef jerky, rice and beans - typical foods of the Northeast - as well as manioc, fish and tropical fruit from the Amazon.

In a nature reserve outside of Manaus, I met Severino Moreira de Santos, whose father was a rubber tapper in Amazonas during World War II. Severino was born in 1952, after the Battle for Rubber, and shared his recollections of his family’s story in an interview. His grandfather migrated from Ceará to Amazonas before World War II. An aviador company brought his grandfather and his family to the rubber estates in Amazonas, where his grandfather worked as a supervisor. Severino implied that his grandfather was deceived by the aviador’s agent in Ceará about the level of the position for which he was recruited, believing that he was hired as an estate manager. Severino’s father, Sebastião, was born around 1928, never went to school, and worked all his life as a rubber tapper without ever getting out of debt.

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244 Wolff, 188-189.
245 Interview with Severino Moreira de Santos, Puruquequara, Amazonas, July 21, 2006
Severino’s mother, a mixed-race Amazonian, grew manioc and other crops for family consumption but never engaged in rubber production. She used her traditional knowledge of herbal medicines to treat sick family members and gave birth to her many children without the help of nurses or midwives.

Severino’s father worked a rubber tapper during World War II. He suffered from malaria and received Atabrine pills in exchange for a quota of rubber, although SESP provided Atabrine to the rubber estates with instructions to distribute them to the workers without charge. His family never encountered a SESP health worker nor were they aware of the involvement of the United States in the Battle for Rubber. Despite all the hardships he endured, his father spoke with great pride to Severino about his service to Brazil as a rubber soldier during World War II.

Severino initially followed in his footsteps, describing the conditions of rubber tappers as “enslavement” through perpetual indebtedness. He worked as a rubber tapper in his youth before escaping to Manaus in 1976. He had to escape, rather than just quit, because he left without settling his debts to the rubber estate. In Manaus, he earned his first cash and started a family. When I met him in 2006, he was working in an ecotourism resort, showing tourists the rainforest and demonstrating how rubber is tapped.

These interviews confirm that unfavorable debt-credit relations continued to prevail on the rubber estates during World War II and afterwards. Despite government-issued labor contracts that guaranteed fairer terms of trade for the rubber soldiers, debt peonage persisted and rubber tappers were unable to earn enough to settle their accounts. The vastness and inaccessibility of the Amazonian hinterlands and the dispersal of rubber
tappers into isolated tracts of forests were barriers to the enforcement of labor reforms enacted by the Vargas government. Without effective means of coercing rubber tappers to remain on the estates until they settled their debts, however, laborers escaped into the cities, where they were able to improve their economic and social conditions and give their children access to a primary school education.

**Women’s Work on Amazonian Rubber Estates**

Rubber tappers accompanied by their families had better chances of survival on the rubber estates than those who lived alone, because their wives and older children could help sustain the family by growing manioc and other crops, gathering fruits, and helping to smoke latex into large, coagulated balls. In late 1943, CAETA reversed SEMTA’s policy on families and sent approximately 16,235 new rubber soldiers and 8,065 dependents to the Amazon. CAETA’s decision reflected the government’s longer-term goals of settling the Amazon with families of marginal rural poor from the Northeast. In contrast, SEMTA’s policy of sending unaccompanied rubber soldiers was designed as a temporary measure to meet a wartime emergency.

Although the government enlisted only men as rubber soldiers, women also worked in wild rubber production. Unfortunately, their contributions have been largely ignored. Contrary to assumptions that rubber production was men’s work because it required tappers to work alone during the night in the rainforests, some women took on this dangerous and lonely job. Solitary women who extracted rubber in the rainforests faced serious threats from both men and wild animals. Due to a sharp demographic

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246 Relatório da CAETA, December, 1945.
imbalance between the sexes on rubber estates, competition for the few available women led to brawls, rapes, and even murders. Allowing one’s wife or daughter to work in the rainforest at night reflected badly upon a man’s honor as the protector of his family.

Cristina Scheibe Wolff offers a gendered perspective on the largely forgotten role of women in Amazonian rubber production. Wolff documents that in the Alto Juruá region of Amazonas, women became rubber tappers during the war. Single women who grew up in the rainforests sometimes worked as rubber tappers until they married. In his interview, Severino mentioned that two of his mother’s nieces worked as rubber tappers. Each woman worked alone on her estradas at night, despite the dangers of jaguars and other predators. They stopped working when they married. Wives seldom worked as rubber tappers, however, because the duty of a married man was to provide for his family, while his wife raised their children and cultivated a garden plot of subsistence crops.

Widows of rubber tappers were often obliged to take over the work of their late husbands to provide for their children and try to clear their husband’s debts to their seringalistas. Rubber estates transferred the outstanding debts of deceased rubber tappers to their widows without compunction and instructed them to produce enough rubber to settle their late husbands’ accounts. Widows were culturally accepted as rubber tappers because they became heads of their families and were obliged to work to support their children. High mortality rates on the estates produced widows old and young.

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249 Wolff, p. 141.
RDC field technicians corroborated that women were working as rubber tappers, observing “whenever we stop at a place where women are tapping, we notice that the average woman can do a better job than the man.” Field technician T. H. Becker reported from the eastern Amazon that the lower Toncantins River valley had sufficient labor “because the tapping is done by women while the men work diving for shells, fishing, etc. The problem here is to get the men interested in cutting rubber and in opening up more estradas.”

RDC technicians visited a number of rubber estates owned and operated by widows and it was not unusual to find a woman estate owner managing a large group of rubber tappers. In the Amazon, members of the rubber elite tended to marry younger women, who generally survived them and inherited their properties and businesses.

Anthropologist Ligia Simonian contends that the activities of women rubber tappers were masked by silence both by local people and scholars for socio-cultural reasons because rubber extraction was considered too dangerous to be women’s work. Elderly women living on the Madeira River recalled three sisters who produced 80 liters of latex a day during the 1940’s and emphasized to Simonian that “in those times, women were not weak. We would not stay around the house, with children, and in the fields only. Besides such responsibilities, we worked in rubber.” Women rubber tappers referred to themselves as seringeuiras. Some even became blind through years of exposure to the process of coagulating liquid latex into firm rubber balls (pelles), using a

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250 Reports on Field Trips in the Amazon Area, 1943-1944, RDC, RFC, NARA, RG 234, Box 01.
251 Ibid.
253 Ibid.
traditional indigenous technique of pouring the latex over a stick and rotating it over a fire of palm nuts.\textsuperscript{254}

Women rubber tappers were considered to be vulnerable to forest spirits that could transform them into witches or sorcerers.\textsuperscript{255} Fear of their magical powers as sorcerers might have protected women rubber tappers from sexual assault in the rainforests. Although use of the term “witch” to describe women who do jobs traditionally reserved for men is not limited to the Amazon, people who encountered witches or sorcerers in the rainforests tended to treat them with respect and deference.

\textbf{Letters from the Rubber Soldiers to the “Father of the Poor”}

Conscious of their identities as “soldiers” enlisted and dispatched to the Amazon by the state to produce rubber for the Allied cause, rubber soldiers used patriotic discourse in letters they wrote to President Vargas to ask him to intervene in their labor disputes with their rubber estate bosses. In March 1944, Francisco Praia and João Valerio, both rubber soldiers working in Acre, dictated a letter to complain that their \textit{seringalista} was cheating the rubber soldiers who were “laboring to contribute to the defense of their nation during wartime.”\textsuperscript{256} Protesting that their children were naked and hungry, they appealed to President Vargas to protect their rights against exploitation by their boss. Stressing that their \textit{seringalista} was Portuguese, not Brazilian, they wrote that he had responded to their complaints by taunting them that Getúlio Vargas was in charge in the \textit{Palacio Catete}, but he was in charge in his estates in Acre.

\textsuperscript{254} Weinstein, 16.
\textsuperscript{255} Simonian, 11-16.
\textsuperscript{256} Arquivo J.G. Araujo, General Correspondence, 1944, Museu Amazônico, Manaus.
The authors of the letter claimed to have proof that *seringalistas* in their region sold Atabrine, although SESP had delivered the pills to rubber estates without charge to be distributed gratis to the rubber tappers. Furthermore, their *seringalista* demanded reimbursement for transportation and supplies for the rubber soldiers that had already been provided without charge by the Brazilian government. Another complaint was that their boss paid the rubber soldiers much less than the value of their crude rubber production, claiming falsely that their rubber tappers had mixed low-quality contaminated rubber into their crude rubber production. The two rubber soldiers insisted that they, as patriots, would never deliver contaminated rubber for the war effort and accused their bosses of falsifying accounts. They informed President Vargas that all the rubber tappers in the region faced the same problems, about which they had already communicated with the Interventor in Acre.

The rubber soldiers who wrote this letter to Vargas knew how to use patriotic and nationalist discourse to make their arguments. They appealed to Vargas not only as “father of the poor,” but also as the leader of a nation at war. The rubber soldiers emphasized their hard work and sacrifices to support Brazil’s war effort, while their boss, a greedy foreigner, was cheating not only them but also the Brazilian government, in addition to impugning President Vargas’ authority over the rubber estates in a frontier territory.

Their letter also referred to a communication from other rubber soldiers to the Interventor in Acre. In 1943, around 200 recently arrived rubber soldiers decided to write to Vargas’ Interventor in Acre, Colonel Silvestre Coelho, to complain about deplorable conditions that they had to endure on rubber estates near the state capital of Rio
Branco.\textsuperscript{257} They sought the advice of Padre José Carneiro de Lima, a young missionary originally from Ceará, who drafted a letter for the rubber tappers and sent it to the Interventor from his own address. In response, Interventor Coelho took a hard line, summoning Padre de Lima and his brother, also a priest, to his office, where he threatened to deliver them to the authorities for court martial on the charge of sabotaging wartime activities. Their superiors in the Church quickly intervened and transferred the young priests to wait out the war in Santa Catarina.

This confrontation between the Interventor and the Catholic missionaries highlights the determination of the Vargas government to force rubber soldiers to produce rubber to in compliance with the Washington Accords, regardless of their rights under government labor contracts. To the Interventor, the government’s instructions to increase rubber production took precedence over any moral appeals by missionaries about abuses against the workers. As a military officer and governor of a frontier state, Coelho considered the social activism of the missionaries to be subversive. This incident between church and state over workers rights presaged the adversarial relationship that developed in Acre between Catholic social activists and Brazil’s military government during the 1970’s and 1980’s.

The idealistic young missionaries tried to help the rubber workers but their Church superiors decided to avoid confronting the Estado Novo over their right to protest the working conditions of the rubber soldiers. The decision of the Church hierarchy was in keeping with its pragmatic alliance with the Vargas government.

Under the republican constitution of 1891, separation of church and state became law for the first time since Brazil was colonized by Portugal. Positivists who dominated the Old Republic were hostile to the Catholic clergy, who had played such an important role in the colonial period. The conservative Catholic Church hierarchy in Brazil supported Vargas from the beginning of his presidency, viewing his vision of a centralized corporatist state as compatible with the Church’s doctrine of papal authority, orthodoxy and social unity. The Church saw the coup of 1930 as an opportunity to make an alliance between church and state with the goal of restoring the rights and privileges of the Catholic Church that had been abolished by the Old Republic. Brazilian Cardinal Sebastião Leme went even further and encouraged his priests to support the fascist Integralist Party. After the Integralist Party was banned in late 1937, Cardinal Leme aligned the Brazilian Catholic Church with the Estado Novo.

Vargas was not a religious man, but he co-opted the Catholic Church as a means to advance his nation-building agenda and prevent alliances between the Church and opposition groups. In a magnificent spectacle in 1931, Vargas, his cabinet and military command joined the Church hierarchy in inaugurating the Christ the Redeemer statue overlooking Rio de Janeiro, a statue that became a Brazilian national symbol as well as a religious one. Under Vargas’ government, religious instruction was reinstituted in public schools, chaplains served the in the military, crucifixes adorned government offices and divorce was illegal. In return, Vargas expected the Church to support the authority of the state and the Estado Novo’s imposition corporatist social order. Brazilian church

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258 Levine, *Father of the Poor?* 35-37.
260 Levine, 35-37.
hierarchs and President Vargas concurred that economic and social reforms should be
top-down, rather than emerging from popular resistance or class conflict.

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Perspectives from the Rubber Elite

To stimulate wild rubber production, the Brazilian and United States governments
encouraged *seringalistas* to revive rubber estates that were neglected after the collapse of
the rubber boom in 1912. The wartime Battle for Rubber produced very few rubber
barons, given that government price controls on the sale of rubber offered stability with
only modest profits for rubber estate owners. Based on interviews with the author, the
personal stories of *seringalistas* who produced rubber during World War II offer some
insights on the perspectives of rubber estate owners and managers.

Eládio Corrêa Lobato was 85 years old when I interviewed him in his spacious
and comfortable apartment in Belém in 2006. He was the manager - and later the
owner - of six rubber estates in eastern Pará during the Battle for Rubber. He began to
manage his father’s rubber estates beginning in 1942, when he was 20 years old.
Although he was called by the draft for military service during the war, his father was
able to arrange an exemption for Sr. Eládio on the fraudulent grounds that he was a
“rubber soldier.” As a member of the elite, his father had enough influence in Belém to
persuade local conscription authorities that at age 50, he was too old to manage his rubber
estates by himself without his son to help him. Unlike the rural poor, Sr. Eládio’s family
connections enabled him to avoid both military service and the grueling labor of a rubber
soldier, although he was one on paper.

261 Interview with Eládio Corrêa Lobato, Belém, July 2006.
Sr. Lobato claimed that because he was a good boss, many rubber tappers volunteered to work for him. He paid them every Saturday and sold them supplies at a significant discount, compared to other trading posts. Most of his eighty workers were local *caboclos* who lived with their families on the estates. Their wives cooked for them and food was in good supply.

Only twelve rubber tappers in his family’s estates were rubber soldiers from the Northeast - all single men. Malaria was the biggest health problem on the estates. As there were no SESP health posts in the vicinity, Sr. Lobato distributed quinine without charge to his workers and sold medicine at his trading posts.

Asked what the rubber tappers did in their free time, Sr. Lobato replied that they went fishing and drank cachaça. The Lobatos diversified their production by producing cachaça, Brazil’s popular sugar cane alcohol, in fifty sugar mills dispersed throughout their estates, thereby avoiding major earnings losses when demand for rubber decreased after the Washington Accord expired in 1947.

Sr. Eládio’s story reflects conditions on rubber estates in eastern Pará, where adequate food supplies and competition for rural labor created better working conditions on the rubber estates.²⁶² It was in the interest of *seringalistas* to be good bosses in Pará, where workers had considerable mobility to seek other employment, for example, in the agricultural colonies of Bragança or in the port city of Belém. His recollection that rubber tappers spent their free time fishing and drinking cachaça seems to reflect a common elitist perception that they lacked initiative. Most rubber tappers fished to improve their diets which generally lacked sufficient protein, and drank alcohol to relieve the monotony of working alone in the forests.

²⁶² See Weinstein for labor conditions in Pará during the nineteenth-century rubber boom.
RDC field technicians who inspected rubber estates in eastern Pará reported ample food supplies and good river transportation networks from Belém. Pará had developed prosperous agricultural and cattle-raising enterprises and did not suffer the food shortages that afflicted the vast territories of the western and central Amazon. As they traveled west and south into the Amazonian hinterlands, away from cities and towns, RDC technicians found serious shortages of food and medicine on the rubber estates because they had to rely on imports from other regions of Brazil and the United States.

In a lower middle-class suburb of Belém, João Pereira da São Carmo Neto, spoke of his father’s work during the Battle for Rubber. His father, also named João Pereira, was the manager of a rubber estate in Amapá, located near the border of French Guiana. A native-born Amazonian, he worked for a large aviador trading firm which owned a number of rubber estates and he taught João Pereira to tap rubber at the age of five. The wealthy owner of the firm, José Julio de Oliveira, had a monopoly over rubber production and supplies in the Jarí River region. In the ostentatious tradition of the nineteenth-century rubber barons, he built a mansion, the “Casa Branca,” inspired by the White House in Washington, D.C.

From his father’s stories, João Pereira recalled that migrant rubber tappers from the Northeast came to the estate because they had lost everything during a period of drought. Their greatest challenge was learning how to adapt to the environment, and João Pereira’s father had to train migrant workers for four or five months before they became fully productive. The rubber soldiers suffered from hunger because they did not know how to hunt the creatures of the forest, preferring to eat beef jerky and beans, the

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263 Interview with João Pereira da São Carmo Neto, Belém, June, 2006.
264 Unfortunately, João Pereira did not have any pictures of the Casa Branca.
traditional diet of the Northeast. Refusing to sleep under mosquito nets, they contracted malaria. Several rubber soldiers formed unions with local Amazonian women.

João Pereira’s father was a manager, not a rubber estate owner. His position as an intermediary led him to complain about the slow pace of the rubber soldiers’ adaptation to conditions in the Amazon. His boss, an absentee aviador, held his estate manager accountable for increasing the productivity of the rubber tappers, and the manager blamed the migrant workers for failing to meet expectations.

Malaria and malnutrition contributed to their low productivity. Rather than making cheap but nutritious food available for their workers, rubber estates expected the rubber soldiers to deal with their malnutrition problems by learning how to hunt and fish to supplement their meager diets. Aside from mosquito nets, there seemed to be no social safety nets for the rubber soldiers working in this estate.

The following verse composed by Raimundo Alves, a rubber soldier, is an example of the ironic humor through which rubber tappers protested their labor conditions:

Alguns patrões são bons. Some bosses are good.
Mas o que estou narrando, But what I am relating,
É o que sempre acontece, Is what always happens,
O seringueiro vive trabalhando, The rubber tapper lives to work,
Perdendo a sua saúde, Losing his health,
E os patrões enricando. While the bosses get rich.

265 Martinello, 289.
Conclusion: From Rubber Tappers to Rubber Soldiers

Although life on the rubber estates was nearly as hard for the rubber soldiers of World War II as it had been for the flagelados who toiled during the nineteenth-century rubber boom, the discourse concerning rubber tappers in the Amazon changed significantly during and after World War II. State propaganda portrayed the rubber soldiers as fighters for world freedom, extracting Amazonian rubber – an indispensable product for victory. Veteran rubber soldiers spoke with pride about their contribution to the Allied war effort and their survival in isolated Amazon rainforests despite dire poverty, malnutrition, disease, chronic debt, and neglect. Their discourse resembled the patriotic and nationalistic propaganda of the Vargas regime about the rubber soldiers, but it also reflected the pride of combat veterans who survived conditions that civilians considered unbearable. Rubber soldiers absorbed the official discourse about the courage and patriotism of the rubber soldiers and made it their own. Aging veteran rubber soldiers used patriotic discourse to strengthen their cases for pensions for their wartime service, finally promised by the Brazilian government in 1988, but rarely delivered (see Chapter V.)

Rubber soldiers from the Northeast made a distinction between themselves and the 300,000 “flagelados” who migrated to the Amazon at the height of the great rubber boom of 1850-1912. Flagelados were victims of drought and objects of pity, whereas the Brazilian government “enlisted” and “mobilized” the intrepid rubber soldiers to “march” to the Amazon and engage in the “Battle for Rubber” for the Allies in a world war. The idea of “mobilized rubber soldiers” connoted strength and bravery, whereas flagelados

were weak, afflicted and unable to survive in their own homes. Nineteenth-century *flagelados* accepted work on Amazonian rubber estates in order to survive. In contrast, the government recruited the rubber soldiers to produce rubber in the Amazon to help the Allies win the war against Hitler. Their discourse revealed a new self-esteem and *esprit de corps* on the part of the rubber soldiers that was absent in the *flagelados*.

Seth Garfield contends that Battle for Rubber propaganda “monumentalized” the masculinity the Northeastern rural worker, portraying him as an intrepid frontiersman, a brave patriot and protector of his family. He argues that the official discourse that transformed *flagelados* into heroic rubber soldiers was part of Vargas’ compact to confer the rights and benefits of citizenship to the working class in return for their disciplined labor (*trabalhismo*) in the service of the state.\(^{267}\) In the Amazon, where rubber labor was stigmatized as debt peonage, the government linked the concept of rubber soldiers with patriotic military service for a great and honorable cause. Government rhetoric was an important ideological tool in the Amazon, a frontier region in which the Estado Novo did not have sufficient power or resources to enforce its own labor contracts. Vargas and his North American allies did not succeed in liberating rubber soldiers from the burdens of debt peonage, but they made them national heroes for the duration of the war.

Garfield argues that the militarization of the identity of migrant rubber tappers was part of Vargas’ nation-building project that sought to “associate military service with the expansion of citizenship to working-class men.”\(^{268}\) Vargas associated conscription with the responsibilities of citizenship by drafting “honorable” working-class men, as opposed to the convicts and vagrants who had been impressed into military service before

\(^{267}\) Ibid, 293.
\(^{268}\) Ibid.
the draft was implemented in 1916.\textsuperscript{269} Having come to power through a military coup, Vargas tightened enforcement of the draft, requiring that all adult males show proof of registration when they applied for government jobs or state benefits, or registered to vote.\textsuperscript{270}

Similarly, recruiters in the Northeast sought to enlist “honorable” rural workers by appealing to their patriotism and (falsely) advertising the Amazon as a “land of plenty” for men without land, a region where rubber soldiers could easily produce enough rubber to fulfill their patriarchal responsibilities to support their families. After CAETA replaced SEMTA in late 1943, the government encouraged rubber soldiers to take their families with them to the Amazon. Sending entire families to the rubber estates advanced Vargas “March to the West” program to integrate the Amazon into the Brazilian nation through colonization by the excess rural poor from the Northeast.

Despite the lofty discourse about citizenship and nation-building, SEMTA and CAETA recruiters often resorted to threats of conscription to induce young men to “volunteer,” giving them a Hobson’s choice between conscription into the military or enlistment on as rubber soldiers. Faced with a choice of producing rubber in the Amazon or preparing for combat in Europe, most chose the option that elders in their communities had already experienced during the first rubber boom – migration to the Amazon.

Had rubber soldiers chosen the military, they would have had a much greater chance of surviving the war. Brazil sent 25,334 troops to Italy, of whom 457 died.\textsuperscript{271}

The soldiers of the Brazilian Expeditionary Force (FEB) were welcomed as heroes upon their return, and their valor in combat against German forces enhanced the reputation of

\textsuperscript{269} Beattie, 238-267.
\textsuperscript{270} Ibid, 243.
\textsuperscript{271} F. McCann, \textit{The Brazilian-American Alliance}, 438-441.
the Brazilian military. Alarmed by their popularity and fearful that the returning soldiers
might support a coup to overthrow the authoritarian Estado Novo regime, however, the
War Minister immediately demobilized the FEB and forbade the establishment of
veterans’ organizations.272

After the war was over, the Brazilian government abandoned the rubber soldiers
in the rainforests, despite the promises of recruiters that the government would transport
them back to their homes after the war was over. Most were never heard of again, having
either died or disappeared into the caboclo society of the Amazonian hinterlands.
Although there are no reliable statistics on their mortality, Martinello estimates that over
15,000 rubber soldiers died in the rainforests during the Battle for Rubber.273 (See
Chapter V.)

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272 Ibid.
273 Martinello, 371.
By 1943, the Brazilian government, supported by United States financing and technical expertise, had mobilized the basic factors of production needed to conduct a campaign to accelerate and increase rubber production in the Amazon. The Amazon awoke from a thirty-year recession to become a hub of government-directed enterprises. The Rubber Credit Bank extended investment loans to rubber estates. The United States government moved quickly to improve river and air transportation networks. The Rubber Development Corporation (RDC) and Brazil’s Amazon Valley supply agency (SAVA) delivered basic food and supplies to Amazonian ports. SEMTA and CAETA recruited thousands of rubber soldiers and organized their transportation to the Amazon. The new Special Public Health Service (SESP) established health posts on the main Amazon tributaries and conducted malaria prevention campaigns.

Government activism in mobilizing the factors of production and supporting infrastructure won accolades in Washington, D.C., and Rio de Janeiro, but the ambitious rubber campaign faltered when confronted by major structural impediments to a rapid increase in wild rubber production. Obstacles to success included the wide dispersal of rubber trees in rainforests throughout the vast Amazonian hinterlands; conflicts between

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274 Fifteenth-century Portuguese proverb.
rubber estates and indigenous groups as they collided on a contested frontier; deplorable labor and health conditions on rubber estates; serious food shortages in most of the Amazonian hinterland; and resistance by rubber elites to government efforts to curb their traditional exploitative trading and labor practices.

This chapter examines the efforts by Brazilian and United States government agencies and experts to manage the Battle for Rubber during the implementation phase in the Amazon “when the rubber hit the road.” I will analyze efforts by the Brazilian and United States governments to overcome structural impediments to increasing production and strategies adopted by local actors to support, negotiate, contest or resist government-directed measures that affected their interests. I focus on encounters and interactions between U.S. government experts and local Amazonian stakeholders - rubber estate owners, aviadores, rubber tappers, indigenous groups and urban elites – to tease out dynamics and transformations at the local level.

Despite the infusion of new labor and capital, supported by improvements in transportation and public health infrastructure, the Battle for Rubber did not result in victory, but contributed only modest increases in rubber exports to the Allied cause. This chapter concludes with an analysis of the underlying causes of the disappointing rubber production results.

North American Technical Experts Penetrate the Amazon

Unprecedented cooperation between Brazil and the United States during World War II brought teams of North American experts to the Brazilian Amazon. The U.S.
Department of Agriculture (USDA) was the first to send rubber technicians to the Amazon, in order to undertake a field survey, collect seeds and specimens, and investigate whether scientists could find ways to make rubber plantations more productive in Latin America. A survey team composed of USDA plant experts and their Brazilian counterparts traveled to the western Amazon beginning in late 1940 to collect seeds and seedlings, as well as identify specific areas that were rich in high-quality rubber trees that had never been tapped. The goal of the rubber survey was to locate wild *Hevea brasiliense* trees that were both productive and disease-resistant, and develop clones with resistance to the South American Leaf Blight. Under a technical cooperation agreement, USDA’s Bureau of Plant Industry and Brazil’s new Agronomic Institute of the North (IAN) established an experimental nursery in Belém.\(^{275}\)

In February, 1942, a month before the Washington Accords were concluded, Nelson Rockefeller dispatched six North American rubber experts to the Amazon to report on the potential to increase crude rubber production. It was an attempt by Rockefeller, as President Roosevelt’s Coordinator for Inter-American Affairs, to assert control over the future rubber production program at a time when he was advocating a proposal to create an Amazon Development Corporation to manage the rubber campaign under North American management. (See Chapter II.) Stationing experts in Belém, Manaus and Porto Velho, Rockefeller instructed them to travel into the field and investigate economic, social and political factors involved in increasing rubber production.\(^{276}\) Without any formal agreement with Brazil, Rockefeller also encouraged his team of experts to provide technical assistance to increase rubber production in the

\(^{275}\) Dean, 87-93.
\(^{276}\) CIAA, “Rubber situation in early 1943,” 19 January, 1943, Rockefeller Family, NAR Personal, RG4, Box 10, Folder 78, Rockefeller Archive Center (henceforth RAC).
Amazon. Given that the Brazilian government insisted on reviewing and approving all international technical cooperation, the United States Embassy in Rio de Janeiro expressed concern that Rockefeller’s premature activism could jeopardize the rubber production campaign.277

After the conclusion of the Washington Accords in March, President Roosevelt assigned responsibility for the rubber production program in Latin America to the Rubber Reserve Company, a subsidiary of the U.S. Reconstruction Finance Corporation. (See Chapter II.) The Rubber Development Corporation (RDC) succeeded the Rubber Reserve Company in early 1943. Rockefeller’s CIAA was removed from direct involvement in rubber production and given primary responsibility public health and sanitation, as well as public information and wartime propaganda.

The RDC established its headquarters in Manaus in the historic and opulent Amazonas Theatre and worked under the direction of Philip Williams. The RDC established branch offices in strategic port towns of the Western Amazon, including Benjamin Constant, Boca Do Acre, Guajará Mirim, João Pessoa, Pôrto Velho, Rio Branco, Sena Madureira, and Vila Feijó.

Williams dispatched twenty North American and fifteen Brazilian rubber technicians to far-flung tributaries to report on conditions on rubber estates and obstacles to increasing production. RDC field technicians were instructed to examine all aspects of rubber production including: evaluations of rubber estates and operators; existing and potential production areas; sites suitable for rubber plantations; status of and requirements for equipment and facilities; production techniques and training needs; labor supply, including competing industries; labor conditions; transportation facilities

277 See Colby, 134-149.
and needs; marketing; procurement; local governments (including legislation, taxes, attitudes of local officials); existing programs of Brazilian agencies; and recommendations for cooperation with other U.S. agencies. Influenced by Henry Wallace’s New Deal agricultural and social reform policies during his tenure as Secretary of Agriculture (1933-1940), rubber experts examined not only technical rubber issues, but also underlying economic and social factors that were obstacles to increasing production.

The reports of U.S. experts contributed insights into economic, social and labor conditions in the Amazonian hinterlands that were valuable not only to the RDC, but also provided the United States government with first-hand information and intelligence about the contested Amazonian frontier. In February, 1942 Undersecretary of State Sumner Welles informed Ambassador Jefferson Caffery in Brazil and other U.S. embassies in Latin America that U.S. rubber experts sent to conduct field surveys in the Amazon had been instructed to accept fact-finding assignments from U.S. military attachés and report to them on their findings.

**Obstacles to Increasing Production**

Rubber technicians traveled throughout the Amazon to examine conditions at existing rubber estates and prospect for promising new areas of potential production. Although field technicians found significant potential for increasing production, they

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278 Letter of instructions to individual rubber men, CIAA, Rockefeller Family, NAR Personal, RG 4, Box 10, Folder 78, RAC.
279 Welles to Caffery, Feb. 19, 1942, RG 59, Box 4517.
were appalled at the failure of the *seringalistas* to develop their estates by opening new trails and creating more incentives for rubber tappers to produce.

Rubber technicians criticized the management the rubber estates on the Tapajós River. Owned by a combination of rubber traders and small producers, many estates had been neglected for ten to twenty years. Rubber tappers still used machetes to cut and bleed the barks of the rubber trees for latex, although Southeast Asian plantations had increased productivity through the use of the Jebong knife, a more precise tool, shaped like a “J,” that increased latex yields without killing the Hevea trees.\(^{280}\) (Latex vessels are close to the inner cambium layer which, if cut, destroy the trees.)

Conditions on rubber estates varied depending on their access to food and supplies, with better conditions prevailing on rivers with easy access to Belém, the main port of entry for food and supplies shipped from Pará, southern Brazil, and the United States. One of the most important variables was the availability of reliable and inexpensive food supplies at the estates. Pará had an important agricultural sector and good distribution networks.\(^{281}\) Conditions worsened in the western Amazon and on remote tributaries in other regions where food shortages were chronic and rubber estates depended on shipments of imported food from southern Brazil or overseas. Beriberi cases were observed among the youngest and most inexperienced rubber soldiers. Incidence of disease and number of deaths was much higher among the migrant rubber soldiers than among indigenous and *caboclo* rubber tappers.\(^{282}\)

\(^{280}\) Survey Trip by Field Technicians Bruce V. Worth and John D. O’Neill, Dec. 3, 1942-March 3, 1943, Reports on Field Trips in the Amazon Area 1943-1944, RDC, NARA, RG 234, Box 1.

\(^{281}\) See Weinstein.

\(^{282}\) Report by John E. Wilde on Boca do Acre, September, 1944, Reports on Field Trips in the Amazon Area 1943-1944, RDC, NARA, RG 234, Box 1.
Rubber tappers consistently complained about the costs of food and basic supplies at the trading posts, which left them chronically in debt. During a 1944 visit to the Upper Purús River region in Amazonas, RDC technician Frederick Vogel reported that rubber tappers – a group of rubber soldiers and Amazonian caboclos - were contemplating armed rebellion. Armed with government labor contracts, rubber soldiers were more aware of their labor rights than were caboclo workers, many of whom were illiterate and unable to calculate their accounts. Vogel managed to talk them out of rebelling by emphasizing the potentially fatal consequences of such action and its adverse effects on the war effort. Rubber tappers were somewhat mollified when the rubber technicians distributed tables showing the controlled prices for various categories of rubber. Before seeing the price tables, the rubber workers thought that their bosses had obtained higher prices in Manaus without passing on the profits to their workers, as provided by their labor contracts. Criticizing rubber estate managers for their poor labor relations, Vogel concluded that “operators have always ignored the cries of their workers, but they were making a mistake this time.”

The rubber tappers’ litany of complaints to Vogel reflected conditions that prevailed in most of the vast Amazonian hinterlands:

- Rubber estate trading posts charged exorbitant prices for basic supplies that they had purchased at much lower prices from the RDC.

- Serious shortages of supplies existed at the trading posts because estate managers had failed to buy early, while river waters were still high and passable.

- Rubber tappers earned less in 1944 than in 1943, despite higher prices paid for their production under the labor contracts.

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283 Progress report by Frederick H. Vogel on the Alto Rio Purús area, 1943-1944, RDC, NARA, RG 234, Box 1.
• Rural workers could earn more from hunting, fishing and agricultural labor than from rubber tapping.

• Diseases were rampant, including yellow fever, malaria, chicken pox, measles, and influenza.

• Lack of postal and communication services aggravated the isolation and homesickness of migrant rubber soldiers.

Even in an area of eastern Pará that was accessible by river from Belém, rubber tappers complained to RDC technicians that prices of supplies were very high and the prices of rubber very low, from Cr $5,00 (U.S. 25 cents) to Cr, $8,00 (U.S. 40 cents) per kilo, with a discount for 10% for moisture. The average annual income of the workers was Cr. $1,500 (U.S. $300) in 1944, against expenses of Cr $2,000 to Cr $2,500 (U.S. $400 to $500). Thus, their annual expenses for food and supplies exceeded their income from rubber production by between 33 to 67 percent. Most rubber tappers remained locked into a spiral of chronic indebtedness, despite efforts of the Brazilian and United States to intervene to improve their terms of trade and raise their real earnings.

**Indians and Rubber Estates on a Contested Frontier**

With a mission to increase production quickly, the RDC was vitally interested in stimulating the opening of new rubber trails in relatively untapped regions of the Amazon, particularly on the western frontier, where in 1941 USDA survey teams had found groves of *Hevea brasiliensis* trees that yielded the highest-quality rubber. Rubber technicians surveyed various areas on the shifting rubber frontier, where rubber estates

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284 In 1945, one cruzeiro was equivalent to 5 cents of a U.S. dollar.
encroached on the traditional lands of indigenous groups and the presence of the state was limited to isolated Indian Protection Service posts. Their reports are fascinating accounts of the dynamics of a highly contested frontier.

Bruce Worth and John O’Neill learned that fifty Mundurucú Indians had produced six tons of rubber in 1942, working on their reserve on the Cururú River, a tributary of the Tapajós River located in southwestern Pará. The technicians commented that much of the upper Tapajós River could not be exploited due to transportation difficulties and “the constant threat of wild Indians.”

Trade along the Cururú River was controlled by a Franciscan mission established by German monks in 1911. Mundurucú men tapped rubber seasonally to obtain axes, guns, knives, and other basic metal implements. The Mundurucú cleared their garden plots from March until May, collected rubber for the next three months and returned in September for planting at the beginning of the rainy season. RDC technicians observed that they enjoyed more autonomy and a better standard of living than the “civilized” rubber tappers:

They eat better than the whites and they know it, they live in larger and more cohesive communities, and the results of a half-century of catechization indicate that they have been less than eager for the Christian message. The very nature of their commerce with the whites has allowed the Mundurucú to keep their distance. They are not wage workers, but independent rubber collectors on lands generally recognized as tribal. They work apart from the whites without outside supervision, and the traders come to them just as often as they visit the posts. An Indian may thus spend only three months of the year collecting rubber, while the remaining three-quarters of the year are spent in traditional activities.

288 Ibid., 40.
Selling rubber to the mission proved to be a better exchange than selling it to river traders, for the missionaries kept honest accounts, whereas unscrupulous rubber traders manipulated them unfairly in order to keep the Indians in debt and obligated to produce more rubber. Although the Indians understood little of prices and weights, they observed that they received more for their rubber or manioc from the Franciscans than from the traders.\textsuperscript{289} The missionaries tried to attract the Mundurucú into their church by choosing Saturdays and Sundays as trading days, but had little success in persuading them to become Christians.

In 1939, Vargas’ government designated indigenous lands on the Cururú as a reserve and the Indian Protection Service (SPI) established a post in 1941. The designation by the Vargas government of Mundurucú traditional lands as a reserve gave this indigenous group legal rights against claims by “civilized” settlers. The Estado Novo’s constitution of 1937 mandated the demarcation of indigenous reserves under state guardianship.\textsuperscript{290}

The decision of the Vargas government to protect Mundurucú by designating a reserve in an area already protected by Catholic missionaries advanced its goal of replacing religious missions with government Indian Protection Service posts. By establishing an SPI post on the reserve, the government signaled its intention of placing semi-autonomous indigenous groups under state control.

In 1943, after Brazil’s entry into the war against Germany, the government ordered the SPI post to monitor the movements of the German missionaries. The SPI cleared the missionaries of any subversive activities and also confirmed that the


\textsuperscript{290}Garfield, \textit{Indigenous Struggle at the Heart of Brazil}, 23-24.
Franciscans paid the Indians higher prices for their rubber than those offered by rubber traders on the Tapajós River. After the state had established its presence on the reserve through an SPI post and investigated the Germans missionaries, the government allowed the mission to continue their work with the Mundurucú.

In August 1940, Vargas became the first Brazilian president to visit Amazonian Indians on their lands. He flew to the lands of the Karajá Indians on Bananal Island in the state of Mato Grosso and pledged to demarcate their traditional lands as reserves. In the Amazon, the Vargas government followed a pattern of publicly and vociferously insisting on the principle of state control over the region; establishing a few token government outposts to monitor vast areas; and permitting foreign missionaries to carry on with their work as usual. When it came to assuming responsibilities for the protection and tutelage of the Indians, the Estado Novo had neither the financial nor the human resources to replace the missionaries. Vargas’s rhetoric exceeded his government’s very limited capacity to project the authority of the state on the Amazonian frontier.

Protected by both the Franciscan mission and the Indian Protection Service, Mundurucú rubber tappers enjoyed more labor autonomy than caboclo or migrant rubber tappers. By skillfully negotiating their interests with the missionaries, SPI agents, and rubber traders, the Mundurucú managed to retain their traditional lands and sell their rubber to the missionaries at fair prices without compromising their cultural values by becoming Christians. Without outside protection, Mundurucú men might have become debt peons on rubber estates hacked out of their traditional lands when international demand for Amazonian rubber resurged during World War II.

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291Ibid, 697.
Erick Langer’s examination of the life cycles of frontier missions and their evolving relationships with Indian labor and the local economy provides a framework for understanding the dynamics between the Mundurucú, the Franciscans, and the Brazilian state. In a study of Franciscan missions among the Chiriguano Indians in republican Bolivia, Langer argues that frontier missions in Latin America evolved through three stages: at their initial stage, mission Indians helped the state to secure frontier settlements by fighting against hostile indigenous groups, constructing and fortifying imposing mission structures, and producing food for the religious community’s consumption. In the second stage, missionaries indoctrinated and trained Indian laborers and made them available to colonists and settlers on terms negotiated by the mission. In the third stage, the frontier advanced beyond the missions and the area became more integrated into the regional economy. Conflicts between colonists and missionaries erupted over access to Indian laborers, causing the missions to become refuges for indigenous groups against exploitation by the colonists. When state authorities concluded that the missions’ role as protector of the Indians impeded the region’s economic development, they intervened to secularize the missions or replace them with government Indian agencies.

Established in 1911, just as the rubber boom peaked and was about to collapse, the Franciscan mission on the Cururú River at the headwater of the Tapajós River was evolving from the second to the third stage within Langer’s paradigm when the Estado Novo decided to create an indigenous reserve for the Mundurucú. The investment by the Ford Motor Company in huge rubber plantations downriver on the Tapajós River had

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293 Ibid.
brought in international capital and technical expertise and soaked up local rural labor to develop one million hectares of rainforest into a modern agricultural enterprise. Shortly after Vargas’ October, 1940 visit to the Ford Plantations, which he called a “model investment,” the government established an SPI post on the Mundurucú reserve, demarcating a frontier between an experiment in global modernization and an area of conservation of indigenous culture in the Amazon.

During the nineteenth-century rubber boom, rubber barons ruthlessly exploited the Mundurucú, forcing them to work as rubber tappers by holding their families as hostages and using their women as sex slaves. The arrival in 1872 of an Italian Capuchin missionary improved their labor conditions, but he proceeded to attack Mundurucú culture, calling their beliefs “pernicious witchcraft.” The missionary also denounced the rubber traders’ debauchery to the governor of Pará and advised the Indians not to pay their debts.294

The Mundurucú were confronted with the choice of unpalatable options, with their autonomy compromised in either case. Rubber traders exploited the Indians for profit and sex, but did not try to change their culture or beliefs, whereas the Capuchin missionaries insisted in imposing their Christian religion and an alien European culture upon the Mundurucú, but defended them against economic and sexual exploitation. Nevertheless, the conflict between missionaries and rubber traders also opened opportunities for the Mundurucú to negotiate better terms for their rubber labor by appealing to missionaries for protection. Rubber traders withdrew from the region after the collapse of the boom in 1912, and the Mundurucú to return to their traditional communal hunting and gathering cycles.

During the Battle for Rubber, Mundurucú men returned to rubber extraction, this time as independent producers under both missionary and SPI protection. In order to devote more time to rubber production, young Mundurucú men began to leave their communities to live near their rubber groves with their nuclear families. Yolanda and Robert Murphy, North American anthropologists who lived with the Mundurucú in the early 1950’s, argue that the rubber trade destroyed their communal society.²⁹⁵ Mundurucú women wanted their husbands to be industrious rubber tappers who brought them clothes, ornaments and perfume, even if they fell into debt. Increasingly indebted, Mundurucú men had to devote even more time to tapping rubber, leaving little time for communal hunting or agriculture. Their community fragmented, and chiefs lost their authority to negotiate for the entire indigenous group with rubber traders and missionaries.²⁹⁶ As chiefs lost power, married women gained more autonomy by leaving communal homes - where they were subject to the authority of chiefs and older women - to form nuclear families where they had more influence over their husbands.

Rubber technicians who visited more remote areas encountered a contested and violent frontier in which *seringalistas* tried to push into indigenous lands and encountered resistance. Triggered by the advancing rubber frontier, relations between Indian rubber tappers who agreed to work on the estates and “hostile” indigenous groups became more conflictive than on the relative stable Mundurucú reserve.

In their study of the Kayapó Indians along the Xingu River of Pará, Marianne Schmink and Charles Wood argue that conflicts intensified between Indians and rubber producers during the Battle for Rubber, as abandoned rubber estates were revived by

²⁹⁵ Murphy & Murphy, 210.
²⁹⁶ Ibid. 208-209.
financing from the Rubber Credit Bank and rubber soldiers penetrated the Xingu region.\footnote{Marianne Schmink and Charles H. Wood, \textit{Contested Frontiers in Amazonia} (New York: Columbia University Press, 1992), 259-260.} Rubber traders accused the SPI of furnishing guns to the Indians, while the SPI countered that rubber traders were using the Indians as an excuse for their own low rubber productivity and failure to repay the Bank.\footnote{Ibid.}

In September 1944, while inspecting conditions on the Purús River area, RDC technician John Wilde observed Indian labor from “friendly” indigenous groups, including Ipurian Indians, working on the rubber estates.\footnote{New Area Report by John E. Wilde on the lower Rio Purús, September 16, 1944, Reports on Field Trips in the Amazon Area, 1943-1944, RDC, NARA, RG 234, Box 1.} According to an article published in a Manaus newspaper during the same period, the “friendly” Ipurian Indians attacked the “friendly” Jamamadi Indians, causing deaths on both sides.\footnote{Ibid.} The characterization of indigenous groups as “friendly” or “hostile” on the basis of their willingness to tap rubber revealed a profound lack of understanding of the diverse indigenous peoples of the Amazon. The Indian Protection Service rightly blamed rubber producers for encroaching on indigenous lands and provoking violence between indigenous groups.

\textit{Seringalistas} considered the Indian rubber tappers to be more dependable than migrant laborers because they were more self-sufficient in the Amazonian environment, providing for their basic subsistence from the forests and rivers. Frontier indigenous groups had access to a more nutritious diet than did the migrant rubber soldiers and enjoyed better health. They worked as rubber tappers only long enough to trade their
production for metal tools and other goods that they could not produce themselves, causing rubber estate managers to grumble that they lacked staying power.

Although their per capita production was low, Wilde concluded that Indians were better suited to local conditions than migrant rubber soldiers and recommended enlisting Indian labor. Wilde reported that an SPI agent offered to try to persuade the “friendly” Jamamadi Indians to provide around 200 male laborers to gather rubber. When Indian malocas were located near or on rubber estates, it was often possible to interest the Indians in rubber tapping. As representatives of the state, SPI agents served as brokers between the rubber estates and the Indians in negotiating terms and conditions for indigenous labor with Indian chiefs, who provided rubber workers. During the 1940’s, the chiefs had more leverage in labor negotiations than did migrant workers because indigenous groups did not depend on rubber work.

In response to Wilde’s concerns that unexploited upper river areas might be kept out of production because of threats from hostile indigenous groups, Jamamadi rubber tappers offered to exterminate them, if furnished with guns and ammunition. Wilde portrays a lawless frontier in which Indians were the principal source of rubber labor, and hostile indigenous groups were powerful enough to deter the expansion of the rubber estates into their traditional lands. Frontier Indians were interested in acquiring guns and ammunition in order to respond to threats from both colonists and other indigenous groups.

On the Purús River, Wilde visited the Santa Vitoria rubber estate, owned and operated by Anna Texeira Sobrera, who was accused of illegally exploiting a neighboring rubber estate. (Although managing frontier rubber estates was considered too dangerous
for most women, widows - as heads of their families - were accepted.) Santa Vitoria’s Indian rubber tappers entered the neighbor’s estradas to collect latex, but due to their fear of the Indians, the estate’s owners did not retaliate.\textsuperscript{301} The incursion into the neighboring estate may well have been a raid initiated by indigenous rubber tappers, rather than an action ordered by Anna Sobrera. The balance of power in this incident leans toward the Indians, who suffered no retaliation for their poaching. Cristina Wolff argues that seringalistas depended heavily on Indian labor on the frontier and had little choice but to accept their traditional practices.\textsuperscript{302} Local indigenous groups regarded rubber estates owners and laborers as trespassers who were exploiting their traditional lands.

Visiting the state of Mato Grosso, along the Upper Juruena River, rubber technician Bruce Lamb compared inexperienced rubber soldiers with indigenous laborers, noting their mutual distrust:

> The 22 men that came with us on the plane had never seen the jungle before this trip. None knew how to handle a canoe, some had never used a shotgun and very few knew how to work with an axe. To transform such men into caucheiros capable of maintaining themselves in the jungle 130 miles from the nearest civilized habitation and produce caucho (rubber) is not possible in two or three months.\textsuperscript{303}

Ten experienced Apiacá Indians worked on the same rubber estate, but Lamb concluded that they should not supervise the novice rubber soldiers because the Indians held them in silent contempt. For their part, migrant rubber tappers distrusted the Indian workers, considering themselves much more advanced and “civilized,” whereas Indians perceived the newcomers as blundering intruders in the eco-system, lacking even the

\textsuperscript{301} New Area Report by John E. Wilde, September 6, 1944, Reports on Field Trips in the Amazon Area, 1943-1944, RDC, NARA, RG 234, Box 1.
\textsuperscript{302} Wolff, 181.
\textsuperscript{303} Report by F. Bruce Lamb on Upper Juruena River, March 13, 1945, Reports on Field Trips in the Amazon Area, 1943-1944, RDC, NARA, RG 234, Box 1.
most basic skills to survive in the rainforests. During their attempts to recruit more Amazonian labor, Ford Plantation managers also learned that their “civilized” rubber labor force, including acculturated Indians, refused to work with “uncivilized” Indians.304

On the Madeira River, near the border of Amazonas and Rondônia, Lamb observed that local Indians were hostile to the rubber estates. They robbed and destroyed unguarded homes, stole supplies left in the jungle, and broke canoes. Lamb concluded that hostile indigenous groups were a serious obstacle to increasing rubber production in the area.

Indians living on the Madeira River had reason to be hostile. An account by John Hemming documents atrocities on a tributary of the upper Madeira River in Rondônia and the cycle of violence between rubber men and Indians which ensued. In 1945, João Chaves openly boasted that he attacked and killed 118 “Black-Mouth” Indians and forcibly brought 600 Indians to work on his rubber estates.305 The SPI investigated and found that Chaves’s indigenous rubber tappers were actually his slaves. Chaves was briefly arrested, but was released without prosecution. The SPI rescued a few Indians and brought them to Pôrto Velho, where they contracted fatal cases of influenza. The massacre and enslavement of Indians unleashed a long cycle of violence against isolated rubber tappers and savage reprisals from “civilized” society in Rondônia.

This incident highlights the inability of the Brazilian state to project its authority and enforce the rule of rule on the frontier. SPI agents investigated reports of indigenous slavery and had Chaves arrested, but through his connections with local elites, the latter-day rubber baron was quickly released without trial. Chaves got away with the same

304 Dean, 82.
305 Hemming, Die if You Must, 297-301, 744. (The “Black Mouts” were members of the Uru-Eu-Wau-Wau group.)
practices of outright enslavement of Indians that were common on the frontier during the
tenineteenth-century rubber boom.

Rubber technicians searching for new areas for wild rubber production found that indigenous groups remained an important limiting factor on the Amazon frontier. In many frontier areas, it was impossible to extract rubber without the cooperation of local indigenous groups. In regions of Rondônia where Indians were still being massacred and enslaved, it was not safe for rubber estates to operate. The security of frontier rubber estates depended on establishing peaceful co-existence with local indigenous groups, while the prosperity of the rubber enterprises depended on Indian labor to open rubber trails through the rainforests, extract rubber, and provide canoe transportation.

The rubber technicians’ reports describe an Amazonian frontier in which indigenous societies were a major factor. Amazonian Indians groups struggled to hold on to their traditional lands and culture in the face of a new Amazon rubber cycle. Indigenous groups adopted different survival strategies when confronted by an advancing rubber frontier. Some groups attacked rubber estates, others accommodated and agreed to work for them, and still others retreated further into the headwaters of remote tributaries where they hoped to avoid contact with the “civilized” world.

**Channeling Rural Labor into Rubber Production**

To accelerate and maximize rubber production in the Amazon, the RDC tried to discourage rubber tappers from working in other industries. Rather than seeking to diversify the Amazonian economy, the RDC asked the Brazilian government to channel
rural labor into rubber production by restricting other non-agricultural production activities. Observing that the Amazon delta had the largest population and also the greatest variety of other enterprises, RDC technicians expressed frustration that there was sufficient labor supply for the entire rubber campaign in Pará - if only it could be taken away from other work.”

The wartime rubber campaign increased pressure on rubber tappers to devote all of their time to producing rubber. The Brazilian government suspended the production of non-essential commodities that were competitive with rubber gathering; for example, forbidding exports of alligator skins, traditionally a lucrative occupation for Amazonian caboclos. In 1942, the RDC purchased the Brazilian Amazon’s entire production of brazil-nuts for US$1 million as an incentive to rubber tappers to work in the rubber estates throughout the year, instead of leaving during the rainier season. Brazil-nut production was a complementary activity to wild rubber production on the rubber estates because the nuts were harvested from the same forests as rubber trees during the rainier “winter” season when rubber was not tapped. In a striking example of RDC mismanagement, the nuts rotted in a Belém warehouse, waiting in vain for an import permit from the United States government, which did not consider the shipment of brazil-nuts to be a wartime priority.

With the support of the RDC, the Brazilian government included a clause in the labor contracts issued to the rubber soldiers that required them to work all year on the rubber estates, instead of only during the six-month tapping season. (See Chapter III.)

One RDC technician who was not influenced by the New Deal approach even suggested

306 Report of T.H. Becker on the Delta Area, Reports on Field Trips in the Amazon Area 1943-1944, RDC, NARA, RG 234, Box 1.
307 Dean, 95.
that rising food prices could be an incentive for the rubber tappers to work harder to increase production, arguing, “It is claimed by some that the *seringueiro* only works for enough food to eat. Perhaps if the price continues to go up and the price of rubber remains the same, he will have to produce more rubber in order to eat.”

In the Amazonian delta, an RDC technician observed that whenever a launch arrived at a trading post, local rubber tappers, fearing that the boat vessel was a military vessel looking for potential new conscripts, rushed to the trading posts with their rubber production to show that they were useful to the war effort as *seringueiros*. The *Estado Novo* used the threat of the draft to induce Amazonian *caboclo* workers, as well as rubber soldiers, to devote themselves to rubber production.

In their zeal to increase wartime rubber production quickly, North American experts supported similar measures to those that the rubber elite adopted at the height of the first Amazon rubber boom, when surging demand for automobile tires prompted them to forbid their rubber tappers from engaging in any other occupation. By concentrating the energies of the rural labor force into rubber production, the wartime rubber campaign curtailed both the autonomy and mobility of the rubber tappers. In an effort to provide minimal levels of security for the workers, however, the two governments decided to intervene in the rubber economy by importing basic foods and supplies to meet the basic requirements of the rubber estates.

**Supplying the Rubber Estates: The RDC Versus the *Aviadores***

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The most ambitious RDC intervention into the Amazonian economy was its effort, in partnership with Vargas’ government, to end the aviador trading system that kept most rubber tappers in chronic debt and replace it with RDC and SAVA shipments of supplies to rubber estates’ trading posts, thus eliminating the chain of intermediary traders who bought, sold and forwarded supplies on credit. Estado Novo officials and New Dealers agreed that it was a priority to eliminate this exploitative trading system.

In August 1942, German U-boats sank six Brazilian passenger and cargo ships off the Northeastern coast, killing many civilians, including women and children. Submarine attacks on Brazilian commercial shipping interrupted food supplies from southern Brazil to the Amazon and the Northeast, causing serious food shortages. Having assumed responsibilities for food as well as health programs under the Washington Accords, Nelson Rockefeller’s CIAA responded quickly by negotiating a technical assistance agreement with Brazil to improve food production methods in the Northeast, with the goal of reducing its dependence on basic foods from the South.  

With North American troops stationed in a string of military bases along Brazil’s northeastern coast, the Roosevelt Administration’s policy was to help the region through this wartime food crisis.

Southern Brazil traditionally supplied the Amazon with basic foods, including wheat, corn, meat, coffee, sugar, salt, and cooking oils, receiving natural rubber, minerals, and forest products in exchange. Except for Marajó, Bragantina, and a few other regions of Pará, the Amazon did not produce food on a commercial scale. Due to constant threats of submarine attacks on maritime shipping, commerce between southern

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and northern Brazil became sporadic and unreliable, prices of food soared in the Amazon, and shortages became acute. Even Manaus suffered wartime food shortages. The RDC and SAVA agreed to cooperate in maintaining stocks of essential basic foods and supplies in Amazonian ports including: sugar, rice, coffee, lard, salt, wheat, tobacco, matches, beef jerky, axes, knives, headlamps, kerosene, fishhooks, rifles, gunpowder, and cloth.

No roads connected southern Brazil or any other region of the country with the Amazon. Protected by military convoys, supplies traveled along the Atlantic coast to Belém.\textsuperscript{310} Provisions were stocked in warehouses in Belém, Manaus, Pôrto Velho, Boca do Acre, Santarém and João Pessoa, and much of the food was sold in the cities. Sale prices of imported supplies in Belém, their port of entry, were not permitted to be higher than prices quoted in March 1942. Prices of basic supplies in other parts of the Amazon were set by SAVA and the RDC and approved by the Rubber Credit Bank, as well as the state governments of Amazonas and Acre, after calculating the costs of freight, transportation and tariffs.

In the cities, only large \textit{aviador} firms with established reputations were authorized to sell supplies provided by the RDC and SAVA. In the interior, SAVA and the RDC sold supplies from their warehouses to river traders, who re-sold them to the rubber estates, with mark-ups limited to fifteen percent. Prices of basic supplies were published and subject to reevaluation every six months.\textsuperscript{311}

By the end of the war, the RDC had imported more than 100,000 tons of food into the Amazon. The RDC sold more than $30 million of food and equipment to merchants

\textsuperscript{310} Corrêa, 97-99.
\textsuperscript{311} Ibid.
and rubber estates, earning a gross profit of about five percent.\textsuperscript{312} Much of the imported food spoiled in warehouses, due to the Amazonian climate. Just as in the first rubber boom, eagerly awaited food supplies arrived at remote rubber estates unfit for consumption.

The government-directed supply system had fatal flaws. The main problem was that the RDC, SAVA and SNAPP did not control river transportation outside of the main arteries of the Amazon. Rubber estates on hundreds of Amazonian tributaries were serviced by riverboats controlled by aviador firms, which had long-established patron-client relationships with scores of river traders (regatões) and seringalistas. River traders on the tributaries marked up prices of supplies without fear of government enforcement of price controls. Inspecting the region for the Brazilian government’s Commission to Control the Washington Accords, Reynaldo Reis reported in 1943 that as soon as traders left Belém, Manaus and Pôrto Velho, they raised their mark-ups from the 15 percent authorized by the RDC and Rubber Bank to as much as 100, 200 and 300 percent.\textsuperscript{313} Trading posts also raised the prices of supplies to their rubber tappers with impunity. Seringalistas resented being forced to sell their rubber to the Rubber Credit Bank at government-controlled prices, and they compensated for imagined lost profits by overcharging their workers for food and supplies.

Brazilian critics accused the RDC of over-confidence and failure to learn from the experiences of the Amazonians themselves. For example, according to a report by Reynaldo Reis, who visited the Amazon in 1943, much of the metal equipment imported

\textsuperscript{312} Douglas Allen and Francis Adams Truslow, Summarized History of the Operations of the Rubber Development Corporation, 1947, RDC, NARA, RG 234, Box 5.

\textsuperscript{313} Reynaldo A. Reis, Relatório tratando da exploração, comercialização e contrabando da borracha e abordando a situação dos seringueiros, September 9, 1943, GVC, CP-DOC/FGV.
by the RDC was inappropriate for the humid tropics. Tin basins for smoking latex sent by the RDC were too small, cartridges rusted because they were not coated with heavy lead, and knives with bone handles split in the hot tropical sun.\textsuperscript{314} Reis concluded that the RDC committed many elementary and expensive mistakes that would not have occurred had North American rubber technicians consulted locals who had experience with rubber production in the Amazon. Reis’s criticism was generally valid, as most North American experts in the Amazon arrived with the conviction that their education and expertise was superior to that of their Brazilian counterparts.

The RDC also attracted criticism for sending too many experts to the Amazon and wasting money on ambitious programs to finance infrastructure, supplies and the recruitment of rubber tappers. North American critics of RDC over-spending were incensed that all of these expenditures failed to result in significant increases in rubber production for the war effort. Amazonian residents blamed the RDC for stimulating inflation in Belém and Manaus by over-paying for housing, food and other necessities.\textsuperscript{315} Elite Amazonian families moved out of their houses in order to rent them to North Americans at inflationary rates.

Neither the Brazilian government nor the RDC was willing or able to expend the funds and human resources necessary to monitor and enforce their price controls at the rubber estates. The dispersal of rubber estates within a vast and complex river system, the persistence of the traditional \textit{aviador} patron-client trading relationships, and the absence of state enforcement authorities in the hinterlands combined to defeat the well-
intentioned efforts of Brazilian populists and North American New Dealers to break the stranglehold of the *aviador* trading system.

**Rubber Trading Elites Contest Government Intervention**

The commercial associations of Manaus and Belém complained bitterly about government intervention in the rubber trading system through the Rubber Development Corporation and the *Banco de Crédito da Borracha*. The local trading elite considered the RDC to be a gigantic competitor, acting as a state enterprise with unfair privileges from the Brazilian government, including tax exemptions and priority for its shipments on river transportation. Amazonian rubber elites also complained that the United States was cheating Brazilian *seringalistas* by compelling them to sell their rubber exclusively through the Rubber Credit Bank at low, controlled prices. *Aviadores* accused the RDC of trying to drive them out of business by importing food and other basic supplies from the United States and southern Brazil to sell to rubber estates at cost. The *aviadores* were right: the RDC identified the *aviador* trading system as an obstacle to increasing rubber production and decided to sell supplies directly to the rubber estates in the vain hope that the savings would be passed to the rubber tappers.

By the spring of 1943, the risk of attacks by German submarines abated considerably, due to combined U.S.-Brazilian measures to protect Brazil’s coasts and the successful Allied campaign in North Africa. Brazilian merchant ships from the South

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and Northeast could again travel safely along the Atlantic coast to Belém with food and
supplies for the Amazon.

At a government-sponsored conference on the Amazon Valley in April 1943, the
Commercial Association of Amazonas (ACA) appealed to the Vargas government to
raise the price of crude rubber and restore the traditional rights of the Amazonian trading
elite to supply Brazilian products to rubber estates, restricting the RDC to supplying only
foreign goods to the Amazon. Responding to lackluster production figures of 1942-1943,
the RDC and Brazilian Commission to Control the Washington Accords agreed to raise
the price of the finest crude rubber from 39 cents to 45 per pound, FOB Belém.317
Amazonian rubber elites were not satisfied, claiming that the price hike did not even
compensate for inflation, and advocated a more comprehensive approach.

Traditional rivalry between the commercial associations of Amazonas and Pará
initially delayed efforts to advocate their cause with the government. Amazonas, which
was heavily dependent on food imports, suffered more from wartime food shortages than
did Pará, which had thriving agricultural zones. Due to its strategic location at the mouth
of the Amazon, Belém was the principal Amazonian port of call for merchant ships from
the rest of Brazil and the United States, while Manaus received most of its imported food
shipments through Belém, with ensuing delays and higher prices. Manaus had deep-
water port and floating docks which could accommodate deep-draught ships, and the
Amazonas elite demanded direct maritime shipping links between the southeastern port
of Santos and Manaus. The ACA also complained that the rubber elite of Pará received
preferential treatment from the Rubber Credit Bank.

317 Oliveira, 117-118.
After months of talks, the two commercial associations agreed on a memorandum to be presented to President Vargas and Valentim Bouças, President of the Commission to Control the Washington Accords. The associations requested the government to reexamine the rubber program with the “patriotic objective of correcting its deficiencies,” which had impeded increases in rubber production. The document attributed the failure to achieve more than a minimal increase in rubber production during the first year of the Battle for Rubber directly to the price controls imposed by the two governments, recalling that Amazonian rubber production reached its peak in 1910, when the international price of rubber exports rose to US $2.00 per pound.

The memorandum reflects the mindset of a traditional regional elite fighting to recover its pivotal role in the Amazonian rubber economy. The commercial associations led off with a declaration that the controlled price of rubber no longer covered the costs of production and justified this assertion on the basis of a sharp increase in the cost of living of the seringueiros, which increased 104 percent between 1939 and 1943; and an additional 42 percent between March 1942 (when the Washington Accords were signed) and October 1943. The associations requested that the price of rubber be raised again to help the rubber tappers meet their expenses.

Demands by Amazonian rubber producers for higher prices for their product were not at all unexpected, but their argument that the cost of living of their rubber tappers had risen excessively was sheer hypocrisy. Perhaps the rubber elite believed that arguing for their workers would be more effective with the labor-oriented governments of Vargas and Roosevelt. They understood that government officials were unlikely to be moved by the

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318 The memorandum’s recommendations are included in the Annual Report of the ACA. Relatório da Diretoria da Associação Comercial do Amazonas (ACA), June 1943-June 1944, ACA, Manaus.
319 Oliveira, 123-124.
plight of the rubber elite whose profits margins had diminished, compared to those of
nineteenth-century rubber barons.

Arguing that other countries had negotiated better prices with the United States
for their wild rubber, the commercial associations demanded parity with Venezuela: a
new price of 45 cents per pound for the finest quality rubber upon delivery at the rubber
trading posts, rather than FOB Belém, with transportation costs to be borne by the RDC.
Furthermore, the Amazonian rubber elite asked the government to rescind the monopoly
of the Rubber Credit Bank to purchase crude rubber.

The commercial associations claimed that there was no justification for the RDC
to replace local commerce in supplying the rubber estates. Aviadores wanted to revive
their traditional trading relationships with the rest of Brazil, which had been undermined
by special tax and transportation privileges granted to the RDC by the Brazilian
government.

Complaining that irregular and insufficient supplies had hampered efforts to
increase rubber production in 1943, the commercial associations demanded regular and
reliable shipments of supplies to both Belém and Manaus by maritime vessels in time for
riverboats to deliver them to rubber estates during the “winter” when they were still
accessible by river. Improving the delivery of vital supplies to the rubber estates would
help to increase worker productivity. To avoid speculation, the associations
recommended fixed prices for basic commodities, to be determined by a commission
composed of representatives of SAVA, the Rubber Credit Bank (BCB), the commercial
associations and the seringalistas. They urged that rubber estates be permitted to sell the
goods at their trading posts to their workers at profit margins of 20 to 30 percent, raising
the 15 percent limit set by the RDC and the BCB.

Arguing that the activities of rubber production and crop farming were not
compatible in rubber estates because both activities were at their peak during the same
seasons, the rubber elite urged that the government establish agricultural colonies
throughout the Amazon in order to reduce the Amazon’s dependency on food imports.
Although rubber estate owners made larger profits by selling imported food to the
tappers, the commercial associations advocated for Amazonian agricultural colonies that
would increase the supply of cheaper basic foods to the estates.

Insisting that only workers suitable for rainforest labor should be recruited, rubber
estate owners asked to be directly involved in the selection process of rubber soldiers,
with the federal government continuing to provide free transportation to the estates
through CAETA. The rubber elite complained that government recruiters sent them too
many rubber soldiers who had no aptitude for the work. 320 Indeed, many new recruits
were rejected by rubber estate operators as unsuitable, while others “deserted” in
Amazonian cities while they were enroute to the rubber estates.

The commercial associations demanded an end to the monopoly of the Banco de
Crédito da Borracha (BCB), to be replaced with a free rubber production and trading
system. They proposed that the Bank continue to finance the rubber business, but
without exclusive rights to do so, allowing aviador firms to offer financial credit to the
rubber estates. While the BCB would retain exclusive rights to export crude rubber from
the region, the Amazonian rubber elite would be able to deliver rubber on consignment to
intermediary traders.

320 Oliveira, 123.
The commercial associations also requested more adaptable and flexible lending terms from the BCB and asked that the Bank expand its portfolio to finance agricultural projects, particularly rubber plantations. They also recommended financing the production of “winter” products, such as brazil-nuts, which complemented rubber production.

Due to seasonal changes in water levels of the upper Amazonian rivers, which delayed transportation of collected rubber for months, the associations asked for an extension of the Washington Accords agreement on rubber from the end of 1946 until June 30, 1947.\textsuperscript{321}

After several requests, Bouças agreed in principle to meet with the Amazonian commercial delegation in November, 1943. The two commercial associations, the association of rubber producers (seringalistas), and the rubber processing industry association formed a delegation with representatives of the Interventors of Amazonas and Pará. Although President Vargas had appointed his own personal representatives as Interventors to govern each state, in this case the two Interventors supported the local elites in a major appeal to change government policy, becoming important mediators between the interests of local elites and the federal government.

After promising to receive the delegation of Amazonian commercial associations, Valentim Bouças avoided meeting with them, claiming that he was preparing for an official visit to Washington. Using political connections, the Amazonian delegation managed to bring its recommendations directly to the attention of President Vargas, forcing Bouças to meet with them, which he did in December, 1943.

\textsuperscript{321} Ibid.
Bouças accepted most of the recommendations, deferring the question of raising rubber prices until he discussed the issue with the United States government. As a director in Goodyear’s subsidiary in São Paulo, Bouças was also sensitive to the need to consult the rubber manufacturing sector, which advocated maintaining low prices of crude rubber.\textsuperscript{322}

In February 1944, the RDC agreed to pay a premium of 33.3 percent for all classes of crude rubber, raising the price of \textit{Acre-fina} to 60 cents per pound FOB Belém. The RDC also decided to end its program to supply food, fuel and basic supplies at cost for Amazonian rubber producers, leaving the supply side of the rubber trade to the \textit{aviadores}. The RDC claimed to have already spent more than its entire $5 million budget allocated under the Washington Accords to increase rubber production. For its part, the Brazilian government pledged almost a half million dollars to support increased rubber production.\textsuperscript{323}

The commercial associations justly claimed success in their negotiations, having attained price increases for crude rubber; the restoration of the rights of the \textit{aviadores} to operate freely in the regional rubber market; and the withdrawal of the RDC from the business of importing Brazilian products into the Amazon. The Amazonian elites appealed to their government at the right time. The Roosevelt Administration was having second thoughts about its efforts to restructure the Amazonian rubber economy.

Visiting the Amazon in October 1943, Walter Walmsley, economic counselor of the U.S. Embassy in Rio, wrote a scathing report on the futility of the well-intentioned endeavor to end the \textit{aviador} system. Like Euclides da Cunha before him, Walmsley

\textsuperscript{322} Ibid, 115-117.
\textsuperscript{323} Relatório da Diretoria da ACA, June 1943-June, 1944, ACA, Manaus.
described the interior of the Amazon as “an endless morass” locked in a struggle between land and water. He contended that well-intentioned foreigners and non-Amazonian Brazilians would not be able to reform the exploitative trading system, given the insurmountable challenges of vast distances, inaccessible rainforests, hunger, scarcity, and disease. Walmsley concluded that the United States could do nothing to help the rubber tappers raise their standards of living and recommended that the RDC withdraw from its involvement in the supply side of the rubber business, allowing traditional aviadores to supply the rubber estates. His assessment was bleak:

No darker picture exists anywhere of what in more progressive countries we choose to call corruption. Yet the established society, with its century-old tentacles stretching up all the thousands of tributaries, was totally ignored in our earlier rubber program. The river trade is the bloodstream of this feudal social organization. We have attempted to cut across those arteries expecting that the body would not only survive but would also be useful to us… We have entered someone else’s property and ignored the owner. We have made decisions not only in Belém and Manaus, which is bad enough, but also in Rio and Washington, which is worse, on problems with which we have not the faintest familiarity… The Amazon is a hierarchy of middlemen feeding on the body of the seringueiro… Cash means little to a seringueiro buried in his pest-ridden barracão (shack)… What he needs is food and medicine to keep him alive and alcohol to keep him from despair. What difference is it to him if he gets out of the red and can’t eat? If a seringueiro is credited with a higher price for his rubber, he is debited with a higher price for his supplies. Neither the Rubber Bank nor the RDC nor any other entity without the river organization of the commercial firms, has anything to offer the seringueiro in return for added rubber production.  

Walmsley concluded that it was a mistake to ignore established trading practice in Amazonian society, “with its century-old tentacles stretching up all the thousands of tributaries.” He advocated turning the entire rubber production and trading system

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324 Walter Walmsley, Report on the Amazon Rubber Program, October 18, 1943 U.S. Embassy, Rio de Janeiro to the Department of State, RDC, NARA, RG 234, Box 28.

325 Ibid.
over to the Brazilians and limiting North American involvement to buying the rubber at the docks.

In recommending the withdrawal of the RDC from supplying the rubber estates with food and supplies, the U.S. embassy in Brazil also distanced itself from the Vargas government’s efforts to reduce the power of the rubber trading elite and replace it with state-led interventions in the Amazonian rubber economy. In his scathing report, Walmsley overlooked the incremental progress that agencies funded by both governments had achieved in less than two years. By financing the revival and expansion of the rubber estates, the Rubber Credit Bank replaced the aviadores as the most important source of credit and loans for the extractive industry. During a period of serious food shortages in the Amazon, the RDC rushed food from the United States to supply the cities and towns of the Amazon. Through river traders, some of the food reached the hinterlands. Although Amazonians complained about North American canned food, especially the inedible “Spam,” supplies from the United States helped to tide them over during a serious food shortage.

As Walmsley correctly argued, the main problem was distribution to the widely-dispersed rubber estates. The RDC and SAVA did not possess a fleet of riverboats to deliver supplies to rubber estates located upriver on tributaries, where their ships could not pass. Nor could government agencies enforce their regulations against profiteering at the trading posts at the expense of the rubber tappers. Rubber soldiers hoped that their labor contracts would protect them from falling into chronic debt to the trading posts. Although cash meant very little in the hinterlands, a surplus in rubber tapper’s account
might have been enough to pay for his river transportation to a SESP health post to get medical treatment or to a port city where he could seek other employment.

The embassy may have been telling Washington what it wanted to hear, given that the Roosevelt Administration was moving in the direction of reducing its participation in the Amazonian rubber economy. The Allied victory in North Africa in May, 1943 effectively ended German submarine activity in the South Atlantic, and Brazilian ships could again travel freely from the south coast to supply the Amazon. Although still useful, North American bases on the Northeastern bulge of Brazil were no longer as vital to the United States after North Africa was secured by the Allies.

Amazon rubber production figures were disappointing to the United States. In 1943, Brazil produced only 22,735 metric tons (compared to a target of 35,000-50,000 tons), of which 10,931 tons were exported to the United States, an increase of only 1,473 tons over 1942 exports. Brazil reserved the remaining 11,804 tons for its domestic industry.\(^{326}\)

In addition to Amazonian production, the United States imported natural rubber from plantations in Liberia and Ceylon, which, combined with the domestic rubber conservation campaign, fulfilled its military requirements for natural rubber. Efforts to manufacture commercial quantities of synthetic rubber in the United States yielded an impressive 235,615 metric tons in 1943, compared to only 25,138 tons in 1942.\(^{327}\)

Within Roosevelt’s cabinet, Secretary of Commerce Jesse Jones, to whom the RDC reported in his capacity as Chairman of the Reconstruction Finance Corporation, advocated a more streamlined approach to rubber procurement from the Amazon,

\(^{326}\) Dean, 170.  
\(^{327}\) Wendt, 224.
whereby the United States would purchase rubber at guaranteed prices and withdraw from supplying the region. Jones’s recommendations prevailed after RDC efforts to break the stranglehold of the *aviador* trading system failed to improve the conditions of the rubber tappers and significantly increase production.

By 1944, the United States government could safely end its program to intervene in the Amazonian rubber trading system without fear that its withdrawal from the supply side of the operation would jeopardize the rubber supply needed for the war. During the war years, United States interest in the Amazon focused on rubber production; long-term economic development of the region was not part of President Roosevelt’s agenda.

**Alleged Contraband with Bolivia**

Contraband was a factor in the disappointing rubber production results. A rubber trader on the confluence of the Rio Negro and the Uaupés Rivers in Northwestern Amazonas wrote in 1945 to one of Manaus’ largest *aviador* companies, J. G. Araujo & Cia, Ltda. to ask why they received such low prices for their rubber when others in their region had sold their production for better prices. J.G. Araujo & Cia. replied that there was no mistake because they paid their client what the trading company received for the rubber from the *Banco de Crédito de Borracha*. With only one authorized buyer in Brazil – the BCB - it was virtually impossible for the rubber estates to find intermediaries who would pay more than the controlled prices, except for those engaging in contraband.

Rumors circulated that Amazonian trading houses were hoarding large supplies of rubber in an effort to drive prices higher. A visiting CIAA official reported

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allegations that one aviador was hoarding 8,000 tons of rubber in 1942 on the expectation that the official price would rise. His competitors probably exaggerated the extent of the hoarding in an effort to curry favor with the North Americans. Given the strict price controls on rubber, what could hoarders do with their rubber? One possibility was to smuggle rubber to Argentina, which was willing to pay much higher prices. The United States tried to prevent Argentina from acquiring surplus rubber, on the grounds that it might be transferred to Germany.

A number of rubber traders operating near the border with Bolivia allegedly sold their rubber for higher prices to Bolivian smugglers, who transferred it to Argentina, where rubber could be sold for over US $2.00 per pound. In 1943, Reynaldo Reis visited the Bolivian border region and reported to the Commission to Control the Washington Accords about the rubber trade in Guaporé (now Rondônia) and Bolivia. Based on interviews with officials and rubber estate owners, he calculated that Guaporé and Mato Grosso produced around 2,500 tons of rubber in 1942, of which only 1,051 tons were transported on the Madeira-Mamoré Railroad for shipment downriver to Belém. Reis concluded that the remainder of about 1,500 tons of crude rubber, or around seven percent of the production of Guaporé and Mato Grosso, was smuggled from Brazil to Bolivia and through Bolivia to Argentina.

Reis did not hide his contempt for Bolivia as an underdeveloped country in which contraband was a major trading activity. He accused a number of Bolivian military officers and rubber traders of pro-Nazi sympathies. In his opinion, RDC officials working in Bolivia were naive and overlooked Bolivian activities that undermined the Allied war

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329 Dean, 94.
331 Reynaldo Reis, opt. cit.
effort, including sending contraband rubber to Argentina. Reis also expressed concern over Argentina’s growing economic influence in eastern Bolivia. To deter contraband rubber trade, Reis urged the federal government to reinforce Brazilian garrisons on the Bolivian border and to separate Guaporé from the state of Amazonas and convert it into a federal territory, administered by the government in Rio. Reis’ recommendation was in line with Brazilian military doctrine on occupying and securing Brazil’s western borders. Guaporé became a federal territory in 1943.

Public Health and the Amazonian Environment

In 1942, Roosevelt gave Nelson Rockefeller responsibilities for public health, agricultural development and public information programs in Latin America. To support the Amazon rubber campaign in Brazil, Nelson Rockefeller’s office managed a US $5 million public health and sanitation program in the Amazon and the Northeast.

Brazilians viewed Nelson Rockefeller with both admiration and trepidation as the North American quintessential super-capitalist. Believing in the old adage of “doing well by doing good,” the Rockefeller family, headed by Nelson's father, John D. Rockefeller, established a philanthropic foundation to improve public health and agriculture throughout the world.

André Vieira de Campos’ study of SESP examines the influence of North American public health models on Brazil, beginning in 1915, when the Rockefeller Foundation initiated its cooperation program with Brazil. Decades of collaboration

332 Ibid.
333 See Campos, 120-121.
between Brazilian public health agencies and the Rockefeller Foundation paved the way for wartime collaboration between SESP and CIAA. In the late 1930s, Brazilian public health officials worked with the Rockefeller Foundation on sanitation campaigns in the Northeast to exterminate the breeding grounds of *Anopheles gambiae* mosquitoes, which transmit malaria. In the 1940s, the Rockefeller Foundation produced millions of doses of yellow fever vaccine, developed by its scientists in 1937, and made them available in Brazil (and other tropical countries). Yellow fever vaccinations protected Brazilians and North American experts who worked in the Amazon, where occasional outbreaks of yellow fever occurred in urban areas. During the Battle for Rubber, vaccinated rubber soldiers were able to work on rubber estates without fear of exposure to jungle yellow fever, which was endemic in the rainforests.

Prior to World War II, public health services had barely existed in the Amazon outside of major cities and towns. During the heyday of the first rubber boom, the governments of Pará and Manaus constructed hospitals, established medical schools and financed sanitation projects in Belém and Manaus, but professional medical care was rarely available outside the cities and principal towns.

Under the Washington Accords on strategic resources, the United States and Brazil financed the creation of a special public health agency (SESP), which was tasked with providing health services for the recruitment and transportation of rubber soldiers to the Amazon; improving public health conditions and sanitation in the Amazon; controlling malaria; providing health services to rubber tappers; and training public health professionals. In addition, SESP was responsible for sanitation and malaria control

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around the North American military bases in the Northeast, as well in the Rio Doce Valley, where Brazilian workers maintained a railroad that brought manganese and other strategic minerals from Minas Gerais to the Atlantic coast for shipment to the United States.\textsuperscript{335}

Under its agreements with SEMTA and CAETA, SESP was responsible for providing health services to rubber soldiers in way-stations in Fortaleza, Sobral, Teresina, Caixas, and São Luiz de Maranhão in the Northeast, as well as in their camps in Belém and Manaus in the Amazon.\textsuperscript{336} The agreement did not mention that any health services were to be provided for the rubber tappers after they entered their estates. The Vargas government acted as if its responsibilities towards the recruited rubber soldiers ended when they were delivered to the estates, where the antiquated system of patron-client labor relations prevailed.

SESP established its headquarters in Belém, the gateway to the Amazon and the site of the only U.S. military base in the Amazon. Located in the swampy Amazon delta, where incidence of malaria was very high, Belém was an unhealthy post for the U.S. and Brazilian troops, as well as for rubber soldiers and other migrants. SESP identified malaria as the greatest public health problem in the Amazon.

SESP implemented an ambitious public health and sanitation campaign to build a drainage system to prevent tidewaters from overflowing into Belém, destroy the breeding grounds of malaria-bearing mosquitoes, and distribute Atabrine. The campaign was successful, radically reducing malaria cases among the troops by mid-

\textsuperscript{335} F. McCann, 388-389.
The population of Belém was an indirect beneficiary of a state-directed program designed primarily to support the U.S. military - a familiar pattern in the tropics, where, until World War I, more North American soldiers were killed by disease during warfare than in military combat.\(^{338}\)

Under its ambitious mandate, SESP was responsible for bringing public health services to the entire Amazon which, according to the 1940 census, was inhabited by nearly 1.5 million people, around 75 percent of whom lived in small villages and towns along the rivers.\(^{339}\) SESP established health posts in cities and towns dotted along major waterways, from Belém in the east, to Cruzeiro do Sol in the far west. (See Appendix, map IV.) Having established administrative, research, training and treatment centers in Belém and Manaus, SESP selected thirty smaller cities and towns that were demographically and commercially important and made them headquarters of individual health districts.\(^{340}\) Public health centers in each district ran the local malaria control program, assuming responsibility for the hinterlands as well as the towns. SESP’s ambitious plan was to divide the thirty health districts into sub-districts overseen by sanitary inspectors. By the end of 1943, thirty-four health posts were established in the Amazon, fifteen of which were west of Manaus. It was a good start, but by no means adequate to serve the needs of the highly dispersed rubber tappers, who rarely could afford to travel downriver to the nearest SESP health post - normally hundreds of miles away.

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\(^{337}\) Ibid, 94-96.


\(^{339}\) Campos, 104.

\(^{340}\) Ibid, 125-126.
From Amazonian towns, SESP sent barges up and down the rivers to provide floating health services to rubber estates in the vicinity. This innovative service reached rural populations who could not come to the towns where health posts had been established. Both SESP and the RDC distributed Atabrine tablets free of charge whenever they visited rubber estates. Normally, rubber trading posts of the estates received supplies of Atabrine and the seringalistas decided whether or not to charge their rubber tappers for this preventive medicine.

The RDC purchased six million Atabrine tablets in 1942 for distribution throughout the Amazon. After SESP established a presence in the Amazon, the RDC transferred responsibility for the Atabrine program to the public health agency, which began to distribute the medicine through its health posts. To reach remote rubber estates, SESP organized a distribution network including aviador firms, shipping companies, river traders, missionaries, mayors, and rubber estate owners and managers to provide Atabrine to rubber tappers.

Concurrently SESP, supported by the CIAA, developed a publicity campaign through newspapers, posters and radio to inform Amazonians about the benefits of taking Atabrine and to explain that the side-effects, including jaundice of the skin, were not permanent. Most rubber tappers did not have access to radios or newspapers or even posters, but the word spread that they were entitled to Atabrine gratis, leading many to complain that they were required to buy it. By late 1943, SESP had distributed around 12.5 million tablets and by 1946, the figure was 17.7 million.\textsuperscript{341}

\textsuperscript{341} Ibid, 119-121.
In Guaporé (Rondônia), SESP workers personally distributed Atabrine tablets to workers on many rubber estates, producing outstanding results. According to a SESP doctor, the number of people brought into Pôrto Velho by railroad with serious malaria decreased from an average of ten per week before the drug was distributed on the rubber estates to only one per week.\textsuperscript{342}

In Amazonian towns and cities, SESP destroyed pools of stagnant water that were breeding grounds for mosquitoes through drainage and spraying with crude oil and insecticide. These sanitation efforts recalled the work of Dr. Oswaldo Cruz, who in 1910 conducted a similar campaign in Belém against yellow fever, which is also transmitted to humans through mosquito-bites. SESP’s sanitation projects met with limited success until the use of DDT was introduced, starting in 1945.\textsuperscript{343} It was not feasible to conduct similar sanitation campaigns in the rainforests, where SESP limited its malaria prevention activities to distributing Atabrine to the estates.

During his 1943 inspection trip to the Amazon, Brazilian government inspector Reynaldo Reis lavished praise on SESP and its North American partners, reporting that “untiring doctors and health workers traverse flooded forests and rivers, distributing preventative medicine, treating the sick, and animating the pioneers of the rainforests.”\textsuperscript{344} He urged that state governors and mayors be instructed “not to sabotage this magnificent health service with pernicious bureaucracy”; and instead give SESP everything it needed.

In contrast, RDC technicians who visited the lower Jururá River, a major tributary of the Solimões River, reported in 1944 that around 2,400 rubber tappers were working in

\textsuperscript{342} Ibid.
\textsuperscript{343} Ibid, 130-132.
\textsuperscript{344} Reynaldo Reis, opt. cit.
terrible health conditions. Malaria was rampant, but Atabrine tablets were not available. Workers suffered from a range of other diseases, including ulcers, influenza, worms, venereal diseases, typhoid, yellow fever, and infected teeth. The incidence of tuberculosis increased with the arrival of migrant rubber tappers, many of whom were malnourished and carriers of tuberculosis. Although the region was normally accessible by river, a SESP health post was not to be found within 1,200 miles.

How could the government have failed to provide even the most basic health care services to these 2,400 rubber workers? The answer lies in the difficulty in providing food and health services to tens of thousands of isolated rubber workers who lived and worked dispersed throughout a vast region of dense rainforests and hundreds of tributaries, some of which were inaccessible for months due to seasonal variations in the depths of the rivers. SESP was the first federal government agency to bring public health services to the Amazon, and it took time to build a network of health posts to cover the main waterways such of vast region. Unable to deliver the medicine themselves to dispersed estates, SESP and the RDC officials had to rely on the honesty of riverboat traders and rubber estate managers to distribute Atabrine free of charge and to limit their profits on the medicines and food they provided to 15 percent.

Rubber tappers frequently complained that they were charged at the trading posts for Atabrine tablets that SESP and the RDC had provided gratis to the rubber estates to prevent malaria. When rubber workers became ill, they were at the mercy of their seringalistas, who determined the prices of medicines at the trading posts. It seems irrational that seringalistas denied their workers free Atabrine when their estates

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345 Report by George Hafstad & Paulo Duarte de Machado on the Lower Juruá, 1944, Reports on Field Trips in the Amazon Area, 1943-1944, RDC, NARA, RG 234, Box 1.
would to lose rubber production and profits if their workers contracted malaria. Rural labor was scarce in the Amazon and replacements for sick rubber tappers were hard to find. Disappointed with wartime fixed prices for rubber, however, many *seringalistas* reverted to their traditional ways of making profits by over-charging their workers for basic necessities. They calculated that cheating their workers at the trading posts would bring in more profits than keeping them healthy and productive.

In contrast, J. G. Araujo, who made his fortune as an *aviador* during the nineteenth-century rubber boom, established a nursing home in Manaus for rubber tappers who became seriously ill while working on his many estates.³⁴⁶ His company had been in business for over sixty years when the wartime rubber campaign began. As a leading member of the Amazonian commercial elite, Araujo cultivated a reputation as a paternalistic and charitable boss.

Anthropologist Charles Wagley, who worked with SESP during the rubber campaign, argues that paternalism was important in relations between Amazonian elites and their clients. He emphasizes the importance of the kinship institution of *compadresco*, through which Amazonian rural elites became godparents of their clients’ children. Under this kinship system, rubber traders and *seringalistas* agreed to become the godparents their rubber tappers’ children in return for their loyalty to their patron’s economic and political interests. Godparents were morally obligated to take

care of their godchildren and their families by extending them credit and taking care of them when they were ill.  

The practice of charging one’s rubber tappers for Atabrine that the trading posts received without charge indicates that the seringalistas’ relations with their labor forces were highly impersonal, in contrast to the moral obligations they assumed in the relationship of compadresco. In his study, Wagley examines relationships between rubber traders and Amazonian-born rubber tappers. I suggest that seringalistas treated the rubber soldiers as a rural proletariat, and rarely integrated them into their fictive kinship networks. Unless they married local women and integrated into caboclo society, rubber soldiers remained outsiders who did not benefit from patronage from their bosses. In the eyes of the seringalistas, rubber soldiers were inexperienced newcomers with strange customs; they did not know how to tap rubber or survive in the Amazonian environment; and, even worse, they arrived with government labor contracts and were aware of their rights. Seringalistas complained to RDC experts that by using migrant rubber soldiers rather than native Amazonians, their production dropped by 30 percent during the first year; 20 percent because of illness and 10 percent due to deaths among their workers. Yet some of them charged their laborers for Atabrine in order to make a small profit!

If the rubber soldiers had a godfather, it must have been Getúlio Vargas, the “father of the poor,” whose government officials recruited them and sent them to the rubber estates, armed with labor contracts. The authority of the federal government

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347 Wagley. 150-159  
did not extend much beyond the major port cities; however, where Interventors appointed by Vargas mediated the interests of local elites with the federal government in Rio de Janeiro. The federal government was just beginning to establish a presence in the hinterlands, where the rules of the frontier often trumped the rule of law.

By creating SESP, the Estado Novo planned to advance its own political and economic agenda in the Amazon, which was more ambitious than producing strategic raw materials for the Allies. André Vieira de Campos argues that SESP’s work reinforced the strategy of the Vargas regime to use public health as an instrument to extend the authority of the federal government in the region. What better way to introduce the benefits available from the central government of Brazil than to send health workers to the Amazonian hinterlands to provide free preventive medicine (paid for by the United States) to poor rubber-tappers and other rural workers? Workers whose health improved would become more productive and perhaps even grateful to Vargas for providing this benefit. SESP health posts could also be used to investigate and report to the government in Rio on populations and conditions in the Amazonian hinterlands over which the state had yet to establish effective control.

The Estado Novo’s plans to use SESP for its nation-building agenda were more ambitious than its capacity to implement them, however. SESP succeeded in improving the image of the federal government in small towns and villages along the main channels of the Amazon, but did not have the resources to penetrate the hinterlands, where most of the rubber estates were located. As SESP posts multiplied on the principal rivers, caboclo communities interacted for the first time with federal

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349 Ibid, 231.
government officials whose mission was to prevent diseases and protect public health. Their previous interactions with the federal government had been generally negative, involving the military draft, police repression, and tax-collection. In comparison, SESP was a welcome harbinger of change, with its commitment to reduce disease by improving public health and sanitation. From the government’s perspective, SESP health posts were a means of extending the presence and soft power of the state into the Amazon – a simple infrastructure on which the state could build in the future when it implemented plans to occupy, settle and develop the frontier region.

**Traditional Healing Practices Intersect with Modern Medicine**

In the western Amazon, indigenous and native Amazonians probably considered SESP’s campaign to distribute Atabrine to prevent malaria as unnecessary and intrusive. They used an ancient traditional medicine extracted from the bark of the cinchona tree in the western Amazon that was effective in treating the symptoms of malaria. In a feat of mid-nineteenth-century British imperialism, similar to Henry Wickham’s exploit with rubber seeds, Richard Spruce and Clements Markham collected and exported cinchona seedlings to Kew Gardens in Britain for analysis. Kew Gardens was interested in cinchona as a possible treatment for malaria, to which British colonists, civil servants and soldiers arriving from the cool climate of Northern Europe were particularly susceptible. The collectors sent the seedlings to India and Ceylon, where they were successfully cultivated in botanical gardens and later commercialized. The transfer of cinchona to Southeast Asia strengthened the forces of
European imperialism in the tropics by improving their chances of surviving malaria in the humid tropics.

Dutch-controlled Java became a center of cinchona cultivation in the early twentieth century. The Japanese occupation of Indonesia in 1942 interrupted exports of quinine (as well as rubber) to the Allies. To protect troops stationed in the humid tropics, the United States government turned to Bayer, a German pharmaceutical firm nationalized by the United States during World War II, which developed synthetic quinine (Atabrine). Consequences of earlier Columbian exchanges remained important factors during World War II, influencing both public health and the production of strategic materials.\(^{350}\)

Outside of the cities, Amazonians relied on traditional healers, who learned from indigenous health practices and used remedies based on natural forest and river resources. In the rural Amazon, local midwives (curiosas) were the only nurses, but most rubber estates were so isolated that women gave birth without the assistance of midwives.

A lack of professionally trained nurses, particularly public health nurses, was one of the greatest impediments to providing modern public health services in the Amazon. One of the most important legacies of public health cooperation between Brazil and the United States was SESP’s involvement in Brazilian training doctors, nurses, visiting nurses, sanitary engineers and midwives.

As an outreach to local communities, SESP established a six-month training programs for visiting nurses, recruited among lower-class Amazonian young women who had some primary school education.\textsuperscript{351} After their training, visiting nurses were based in SESP health posts, visiting local families in their districts to teach basic elements of public health. Their mission was to teach basic hygiene, nutrition and disease prevention practices to local people, and discourage the use of traditional healers. This approach was consistent with the Vargas government’s efforts elsewhere in Brazil to modernize public health practices and eliminate traditional medicine, which was considered “ignorant and backward.” By insisting that respected local healers were “backward,” public health workers inadvertently strengthened local resistance to modern medicine and lost opportunities to build grass-roots support for government health policies.

Campos argues that the visiting nurses advanced the goals of the state to project public power in private spaces by entering homes in the rural Amazon as representatives of a Brazilian government agency.\textsuperscript{352} By sending working-class Amazonian “girls next door” to visit the homes of the rural poor; SESP entered private spaces with a degree of cultural sensitivity.

Visiting nurses were tasked to supervise local midwives (\textit{curiosas}) and train them in principles of modern hygiene. \textit{Curiosas} were highly respected members of Amazonian communities, and rural families generally preferred them as midwives to scientifically-trained nurses. Campos observes that SESP officials gradually realized

\textsuperscript{351} Campos, 229-231.  
\textsuperscript{352} Ibid.
that they had to accommodate to traditional culture by gaining the support of the *curiosas*. Instead of trying to replace them, visiting nurses tried to co-opt the midwives by inviting them to their training classes in maternal and infant hygiene and providing them with free sterile birthing supplies. SESP nurses urged *curiosas* to report the births they attended to state health authorities and encourage pregnant women to visit SESP health posts.

As experienced practitioners of traditional medicine, the *curiosas* were not easily convinced by the “scientific” training presented by inexperienced visiting nurses, whom they themselves might have birthed. The success or failure of the classes depended on whether the visiting nurses showed respect for the *curiosas*’s knowledge and experience, instead of trying to impose modern principals of hygiene on traditional communities. The Rockefeller Foundation and other international cooperation agencies working in Brazil learned similar lessons about imposing western scientific values on traditional communities.

The CIAA’s support for education and training of Brazilian public health workers was not purely humanitarian. As a global power at war, the United States was vitally interested in preventing and controlling the tropical diseases which, before World War II, had been responsible for more military casualties than combat. Rockefeller’s choice to lead the CIAA’s health and sanitation program for Latin America was General George C. Dunham of the U.S. Army Medical Corps, a tropical health expert with who had worked in both Panama and Philippines. SESP’s first superintendent was a North American public health physician, Dr. George Saunders, who had extensive experience working on tropical medicine research funded by the
U.S. government. The opportunity for public health doctors and research scientists from the United States to collaborate with Brazilian health institutions and work in the diverse eco-systems of Brazil, where tropical diseases flourished, was a valuable contribution to the war effort.

During World War II, Brazilian doctors and nurses received scholarships for public health training in the United States. Brazilian doctors trained in public health in the United States generally rose to high positions in Brazil’s health bureaucracies and encouraged the use of North American medical procedures, practices and pharmaceuticals. The Rockefeller Foundation financed the establishment of the Johns Hopkins School of Hygiene and Public Health, where leading Brazilian public health doctors were trained. The Foundation also supported medical schools in Brazilian universities. Although the Battle for Rubber was short-lived and rubber production fell short of expectations, public health cooperation between Brazil and the United States flourished during World War II and has continued into the twenty-first century.

Disappointing Rubber Production

President Vargas declared June, 1943 to be “Rubber Month” in Brazil, a proclamation that motivated Alvaro Maia, Vargas’ Interventor in Amazonas, to organize patriotic celebrations in Manaus and present cash awards of Cr. 35,000 (US$700) for the most productive rubber gathers in the region. Maia announced that the winner of the first prize had declined to travel to Manaus at government expense for an awards ceremony, on the grounds that he was too busy producing rubber for the
Roosevelt sent a congratulatory cable to Vargas on the occasion, praising his personal interest in increasing rubber production and “the extraordinary contribution the Brazilian government and people are making to the cause of the United Nations through the Battle for Rubber.” Roosevelt’s message was disseminated throughout Brazil by the government-controlled media. “National Rubber Month” was a propaganda coup for Vargas, but it hid the stark realities of conditions on Amazonian rubber estates.

With human and financial resources from both Brazil and the United States invested in the success of the rubber campaign, why did the “Battle for Rubber” fail to produce enough surplus rubber to contribute significantly to supplying this vital strategic material to the Allies? To what extent did Vargas’s government achieve its goals of using the rubber campaign to extend its presence and authority in the Amazon?

From 1942 through 1945, the “Battle for Rubber” in Brazilian Amazon contributed to the Allied war effort by producing natural rubber for export to the United States, but annual production never reached the target of 50,000 tons, originally projected by North American rubber experts. Using Dean’s statistics, Brazil exported an estimated 45,000 metric tons to the United States over four years (1942-1945). Brazil’s rubber manufacturing industry centered in São Paulo absorbed around one-half of the Amazon’s production. Brazil’s crude rubber production increased at a

353 Relatório da Associação Comercial do Amazonas, June 1942-June 1943, ACA, Manaus.
354 Department of State telegram to U.S. Embassy, Rio de Janeiro, 16 June 1943, NARA, RG 59, Box 4517, NARA.
355 Dean, 170.
modest rate, from 20,005 metric tons in 1942 to 26,419 tons in 1945 (see Table, below).\textsuperscript{356} Rubber Credit Bank statistics, based on Customs reports, show somewhat steeper increases in rubber production over the same period, with production rising from 22,369 tons in 1942 to 30,304 tons in 1945, and with total exports to the United States reaching around 52,000 tons over four years.\textsuperscript{357} Exports of 10,000 – 13,000 metric tons per year during the Battle for Rubber were a very modest contribution to the war effort, amounting to approximately one percent of the annual wartime rubber requirements of the United States.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{Brazil’s Annual Rubber Production and Exports (metric tons)*} & 1942 & 1943 & 1944 & 1945 \\
\hline
\textbf{Production} & 20,005 & 22,735 & 22,529 & 26,419 \\
\hline
\textbf{Domestic Use} & 10,547 & 11,804 & 10,556 & 13,897 \\
\hline
\textbf{Exports} & 9,458 & 10,931 & 11,973 & 12,522 \\
\hline
\textbf{Exports as % of Production} & 47 & 48 & 53 & 47 \\
\hline
\end{tabular}
\caption{Brazil’s Annual Rubber Production and Exports (metric tons)*}
\end{table}

*Source: Warren Dean, 170 (includes both extracted and planted rubber). Dean’s statistics are based on SUDHEVEA figures, which include a 22.5 percent reduction for water loss, impurities, and fraud from the gross weights reported by Brazilian Customs.

Brazil could have exported more to the United States for the war effort had it not reserved about half of its production each year for its domestic rubber manufacturing

\textsuperscript{356} Ibid.
\textsuperscript{357} Banco de Crédito da Borracha, Relatório do Exercicio de 1950, Banco da Amazônia, Belém.
industry (see table, above). Serving both as President of the Commission to Control the Implementation of the Washington Accords and a director of Firestone in Brazil, Valentim Bouças was assiduous in protecting the access of Brazil’s rubber manufacturers to ample supplies of crude rubber.

In 1942 and 1943, the United States government feared potential shortfalls in its rubber supply, and focused on efforts to increase the supply from the Amazon. In 1944, North American synthetic rubber production tripled to 765,000 metric tons compared to 1943 production, covering almost two-thirds of U.S. annual requirements. Imports from Latin America, Liberia, and Ceylon easily fulfilled diminishing U.S. requirements for natural rubber. With adequate rubber supplies assured, increasing rubber production in the Amazon became a lower priority for the Roosevelt Administration.

**Conclusion**

Although Brazil’s contributions to Allied requirements for rubber were disappointingy modest, state-led interventions in the Amazonian rubber production industry were catalysts for significant transformations in the region. The Rubber Credit Bank replaced the *aviadores* and international exporting firms as the most important lending institution in the Amazon. Rubber estate owners had to negotiate with a government bank - rather than to *aviadores* - to obtain investment capital. Consequently, cooperation between the rubber elite and the federal government became crucial to the success or failure of the rubber economy.
The collaborative efforts of Brazilian and United States government agencies could not overcome the structural impediments that hindered rapid increases in Amazonian rubber production. The Ford Motor Company’s effort to cultivate commercial quantities of rubber on its huge plantations in Pará had failed, due to recurrent epidemics of the South American Leaf Blight, combined with labor scarcities. In the absence of available supplies of plantation rubber, the United States financed the stimulation of the Amazonian extractive rubber economy, which was based on an archaic and exploitative debt-credit trading system. The dispersal of natural stands of Hevea throughout the Amazon Basin required the revival and expansion of rubber estates scattered throughout the region and an influx of tens of thousands of laborers to extract wild rubber in the rainforests.

Having identified malnutrition, disease and debt peonage among rubber tappers as major impediments to increasing production, the Estado Novo, supported by the Roosevelt Administration, intervened to deliver food and improve public health and labor conditions on the rubber estates, but the Brazilian government lacked the authority and resources to enforce its legal measures on the rubber estates.

SNAPP and SAVA controlled shipping on the main tributaries of the Amazon River. Aviador trading houses controlled fleets of small riverboats operated by traders who traveled to hundreds of remote tributaries and advanced food, medicine and supplies on credit to the rubber estates. Efforts by the RDC and SAVA to break the stranglehold of the aviadores failed because the two government agencies did not have the capacity to deliver their supplies directly to the rubber tappers on the estates. Instead, they transferred their supplies from warehouses in ports along the main rivers.
to rubber trading companies, with strict instructions to sell them at the rubber estates for no more than a 15 percent profit - but compliance was purely voluntary.

SESP encountered similar problems in its efforts to distribute Atabrine tablets to the estates. The campaign to distribute millions of Atabrine tablets free of charge to rubber tappers was undermined by distribution problems in the vast Amazon region and by the corruption and short-sightedness of seringalistas who charged their workers for the medicine. Frustrated with state-controlled rubber prices, some rubber estates owners showed more interested in fleecing their workers than in increasing rubber production. SESP’s floating health dispensaries reached many rural communities along the main tributaries, but were rarely accessible to rubber tappers on estates located deep in the interior.

RDC efforts to identify promising areas for the development of new rubber estate encountered a porous, violent rubber frontier contested by indigenous groups and colonists, where the Brazilian state had little authority beyond the occasional isolated SPI post and military garrison. The potential to increase rubber production on the frontier was limited by labor scarcities. Indigenous groups knew how to extract rubber and provide for their own subsistence, but they left their rubber groves at will to return to their communal activities and could not be counted on to increase production. To attract migrant rubber labor, government propaganda advertised Acre as a “land of plenty,” where the finest quality rubber was extracted and agriculture flourished. When they arrived, they found an isolated frontier in which rubber was plentiful, but food was scarce and disease was rampant. Throughout the Amazon, regulations that required rubber soldiers to devote themselves to rubber production all year, even in the off-
season, decreased their earnings from other extractive activities and increased their
dependence on credit from the estates’ trading posts. There was little incentive among
rubber tappers to increase production.

SESP’s public health and sanitation campaigns reached towns and rural
communities along the main rivers of the Amazon that never before had access to modern
health care. Sanitation campaigns reduced the incidence of mosquito-borne diseases,
including malaria and yellow fever. SESP health posts and floating dispensaries
provided vaccinations and medical services to poor rural communities. Despite its failure
to reach the rubber estates, except through the distribution of Atabrine, SESP was well-
regarded by the local populations that it served. By extending government public health
and sanitation services to the Amazon for the first time in history, the Estado Novo
enhanced its image as a provider of social benefits to working class families.

As discussed in Chapter III, government intervention to improve the labor
conditions of the rubber tappers produced a reduction in violent abuses against the
workers on the estates, compared to the rubber boom era (1850-1912). Rubber elites did
not want to antagonize their new creditors - the governments of Brazil and the United
States - by behaving like the notorious nineteenth-century rubber barons. Furthermore,
Vargas’ Interventors had become important mediators between Amazonian elites and the
federal government in Rio de Janeiro. Ambitious *seringalistas* who aspired to be
accepted into the elites of Manaus and Belém curbed some of their worst abuses in
order to present themselves as “civilized” businessmen in a modernizing country. In
isolated frontier regions, where the state had only nominal authority, reports continued
to surface of violent abuses and atrocities committed against indigenous groups by
seringalistas to force them to work as rubber tappers, and reprisal attacks by Indians on frontier rubber estates.

The wartime Battle for Rubber lasted less than five years. In that brief period, the Vargas regime, supported by the United States, penetrated the Amazonian economy by establishing a national investment bank and a public health service for the region. The Vargas government recruited and transported 30,000 to 35,000 migrant rubber workers and their families to the Amazon, providing them with labor contracts but leaving them to fend for themselves in the rubber estates. These state-directed initiatives influenced the course of Amazonian development in the post-war era. (See Chapter V.)

During this brief wartime period, the United States government improved air and river transportation networks in the Amazon and connected the region by air to Brazil and the United States. The RDC imported and delivered vital food supplies to Amazonian ports after shipments from southern Brazil were suspended because of German submarine attacks on Brazilian merchant ships. The CIAA provided technical assistance to improve food production in the Northeast. North American doctors and public health experts worked with Brazilian counterparts in SESP to improve public health conditions in the Amazon. Wartime efforts by official North American technical agencies to improve economic and social conditions in the Amazon and the Northeast became models for future United States government programs to support the development of Brazil, including the Alliance for Progress of the 1960’s.
CHAPTER V

POST-WAR LEGACIES OF THE ALLIANCE FOR RUBBER

Brazil Seeks Status as a Major Wartime Ally

After the Allied front moved from North Africa to Italy in mid-1943, the strategic alliance between Brazil and the United States became less important to the outcome of the war. As Germany withdrew from North Africa and the South Atlantic, United States military bases in northeastern Brazil – although still important to the United States - no longer were crucial as a “trampoline” for North American troops and supplies to reach the Allied front. Brazilian leaders were concerned that Brazil’s contributions to the war effort as a supplier of strategic raw materials and sites for military bases were not sufficient to secure its place as a major power in post-war negotiations.

To strengthen Brazil’s position in the alliance with the objective of winning a seat at the post-war table as a great power, Vargas decided in 1943 to offer an expeditionary force of combat troops to fight in Europe. In July 1944, the Brazilian Expeditionary Force (FEB), composed of 25,000 combat troops, landed in Italy to join the Allied campaign. After initial military blunders, the Brazilian “Smoking Cobras” earned the respect of both their allies and enemies for their bloody victory over German forces at Monte Castello in March, 1945.\textsuperscript{358} (The “Smoking Cobras” got their evocative nickname from a story that Hitler supposedly joked that the FEB would depart for European battlefields on the day that tropical snakes began to smoke pipes.)\textsuperscript{359}

\textsuperscript{358} See F. McCann, \textit{The Brazilian-American Alliance}.  
\textsuperscript{359} Ibid, 375.
Through extensive media coverage, the FEB became heroes to their fellow Brazilians, while the “rubber soldiers” toiling in the Amazon began to fade from public awareness. Both the Estado Novo’s Departamento de Imprensa e Propaganda (DIP) and Nelson Rockefeller’s Office of the Coordinator of Inter-American Affairs (CIAA) carefully shaped the news that the Brazilian public received about Brazil’s contributions to the war effort. In 1942 and 1943, rubber soldiers marching off to the Amazon to produce a vital strategic material were the most important popular symbols of Brazil’s contributions to the Allied cause; by mid-1944, the rubber soldiers were overshadowed by news stories about the Brazilian Expeditionary Force bravely fighting against Hitler in Italy.

After the Battle of Normandy in June 1944, the outcome of World War II was no longer in doubt, as the Western Allies and Soviet forces battled their way to Germany in a huge pincer movement. Allied leaders began to shift their focus from winning the war to post-war security arrangements and international institutions.

Brazil hoped to parlay its participation in Allied combat operations in Italy into a leading role in the post-war international security architecture, the cornerstone of which was to be the United Nations. Aspiring to great power status, the Brazilian government lobbied for a permanent seat on the United Nations Security Council. Brazilian diplomats, FEB commanders, and opposition political leaders were aware that the victorious western democracies were unlikely to propose a Latin American dictatorship for such a prestigious role. The Brazilian High Command began to weigh the desirability of insisting on presidential elections.  

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360 Ibid, 443-486
After five years of support by the United States for Vargas as a wartime ally and a force for stability, the United States Ambassador, Adolph Berle, publicly declared in September, 1945 that his government expected Vargas to fulfill his promise to hold presidential elections in 1945. Vargas had been wavering about calling elections, hoping for a groundswell in the “Queremista” movement, which favored his continuity in office. After weeks of political maneuvering, the Brazilian military forced Vargas to resign on October 29, 1945 and called for presidential elections, which were held in December and won by Vargas’ war minister, General Eurico Gaspar Dutra. An authoritarian military leader who suddenly became a democrat in 1945, Dutra represented a continuation of most of Vargas’ policies, including the maintenance of a close alliance with the United States.

**Synthetic and Plantation Rubber Satisfy Wartime Requirements**

In 1945, requirements for rubber to fight the titanic battles ahead in Europe and the Pacific remained enormous, but access to adequate supplies was no longer in doubt. Commercial quantities of synthetic rubber produced in the United States in 1944 and 1945, combined with higher than expected natural rubber production in Ceylon and Africa, assured the Allies that they would not face rubber shortages. Production of synthetic rubber increased almost a hundredfold over four years—from less than 9,000 tons in 1941, to 823,000 tons in 1945 - meeting four-fifths of United States rubber

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361 Ibid, 475-476.
362 The slogan of the Queremista movement was “We want Vargas!”
363 F. McCann, 465.
requirements by the end of the war.\textsuperscript{364} Synthetic rubber could not substitute for natural rubber in every rubber product; frequently a combination of the two rubbers was needed. For example, the Allies continued to require natural rubber as a major input into tire production for heavy vehicles, including trucks and airplanes.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
 & 1942 & 1943 & 1944 & 1945 \\
\hline
Production & 25,138 & 235,615 & 764,882 & 822,941 \\
\hline
\end{tabular}
\caption{Synthetic Rubber Production in the United States (metric tons) 1942-1945}
\end{table}

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\end{flushright}

Had the United States been totally dependent on natural rubber, it would have experienced a serious shortfall that would have undermined its ability to fight a world war. Natural rubber imports from the rest of the world from 1942 to 1945 never compensated for the loss of rubber supplies after the Japanese occupation of most of Southeast Asia in early 1942 (see table, below). Under British colonial rule, Ceylon and India continued to produce rubber during the war.

\textsuperscript{364} See Paul Wendt, op. cit., 214.
TABLE 4

United States Imports of Rubber and Latex 1940-1945*
(thousands of metric tons)

<table>
<thead>
<tr>
<th>Imports</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>11.1</td>
<td>10.8</td>
<td>14.5</td>
<td>26.2</td>
<td>32.8</td>
<td>37.6</td>
</tr>
<tr>
<td>Asia</td>
<td>799.8</td>
<td>1,007.6</td>
<td>255.5</td>
<td>20.1</td>
<td>60.3</td>
<td>69.9</td>
</tr>
<tr>
<td>Africa</td>
<td>7.3</td>
<td>10.6</td>
<td>12.6</td>
<td>13.6</td>
<td>19.0</td>
<td>35.7</td>
</tr>
<tr>
<td>Total</td>
<td>818.2</td>
<td>1,029.0</td>
<td>282.6</td>
<td>59.9</td>
<td>112.1</td>
<td>143.2</td>
</tr>
</tbody>
</table>

*Source: Paul Wendt, “The Control of Rubber in World War II,” 208. (These statistics do not include deductions for shrinkage.)

The United States was disappointed in wartime Brazilian rubber production, which did not come close to meeting its minimum target of 50,000 tons per year, let alone the expectations of scientists who calculated that the Brazilian Amazon could produce 100,000 tons annually. According to the table below, Latin American rubber production contributed 87,000 metric tons to the war effort, while the table above shows that the United States imported over 111,000 tons from Latin America from 1942 through 1945. The RDC reported that over the period that the inter-American rubber agreements were in force (April 1942-June 30, 1947), Latin American countries, including Brazil, exported 153,545 metric tons of rubber to the United States.\(^{365}\)

The plantations of Ceylon, which remained a British colony, exported 400,969

\(^{365}\) Allen and Truslow, “Summarized History of the Operations of (the) Rubber Development Corporation,” op. cit. The RDC statistics also include small quantities of recycled rubber from Latin America.
metric tons, while the Firestone plantations in Liberia produced 65,402 tons.\textsuperscript{366} (See Table, below.) Britain controlled and allocated rubber exports from Ceylon, India and most of Africa (outside of Liberia).\textsuperscript{367} Rubber plantations in Southeast Asia and Africa continued to be much more productive than wild rubber extraction in the Amazon – Hevea’s natural habitat.

<table>
<thead>
<tr>
<th>TABLE 5</th>
<th>Global Natural Rubber Exports, 1942-1945 (metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries/Regions</td>
<td>1942</td>
</tr>
<tr>
<td>Brazil</td>
<td>12,204</td>
</tr>
<tr>
<td>Latin America minus Brazil</td>
<td>5,085</td>
</tr>
<tr>
<td>Ceylon</td>
<td>101,585</td>
</tr>
<tr>
<td>India</td>
<td>594</td>
</tr>
<tr>
<td>Liberia</td>
<td>12,325</td>
</tr>
<tr>
<td>Africa minus Liberia</td>
<td>17,764</td>
</tr>
<tr>
<td>Oceania</td>
<td>875</td>
</tr>
<tr>
<td>ALL</td>
<td>150,432</td>
</tr>
</tbody>
</table>

* Source: Oliveira, 133. Oliveira relies on export data from Brazil’s Executive Commission for the Defense of Rubber. Although the statistics for rubber exports from Brazil are on the high side, this table is useful for its comparative data on wartime exports from all regions of the world.

Warren Dean calculates that from mid-1942 to mid-1945, Brazilian rubber exports actually cost the United States government between US 90 cents and $1.05 per pound, taking into account RDC expenditures as well as the CIAA public health program.\textsuperscript{368} Dean estimates that the RDC expended around $24 million (including $14.5 million for aviation services) more than it earned on the rubber program in Brazil, while

\textsuperscript{366} Oliveira, 133
\textsuperscript{367} Allen and Truslow, “Summarized History of (the) Rubber Development Corporation,”16.
\textsuperscript{368} Dean, 103-104.
Rockefeller’s CIAA spent approximately $8 million on public health. Under the Washington Accords of 1942, only $10 million was allocated for the rubber campaign in Brazil; $5 million to support rubber production, and $5 million for public health. The North American press and Congress criticized the RDC for excessive spending.

Dean concludes that *aviadores* and *seringalistas* learned how to swindle the RDC, just as they cheated the rubber tappers. Their hoarding and contraband activities were outright swindles, but a more important factor in the disappointing productivity of the rubber estates was the failure of the combined efforts of the Brazilian and United States governments to break the stranglehold of the unfavorable debt-credit system at the trading posts and provide the rubber soldiers with a fair share of the rubber profits. The productivity of the rubber soldiers suffered due to undernourishment, disease, and demoralization over their chronic indebtedness, which precluded them from earning surplus cash to help the families they had left behind. Many rubber tappers fled the estates, further hampering wartime efforts to increase production.

**Post-war Public Health Priority: Fighting Malaria with DDT**

In late 1945, SESP began to experiment with DDT, a powerful insecticide developed by a Swiss chemist. Impressed with DDT’s promising results elsewhere, SESP signed agreements with state and municipal governments to use DDT in interior spaces of Amazonian cities, towns and villages. SESP found that spraying interior walls with DDT was effective in controlling malaria for months at a time, and by 1947 public
health workers relied exclusively on DDT to control malaria in the Amazon.\(^{369}\) During DDT campaigns against malaria, SESP health workers gained access to commercial spaces and private homes, further extending the influence of the federal government in the Amazon.

Charles Wagley, who worked with SESP in the Amazon during the war, returned in 1948 as an anthropologist funded by UNESCO. He reported that the people of “Ita,” a fictitious name for a lower Amazonian town that he studied, were “delighted” with the results of spraying their homes with DDT, which cleared their houses of mosquitoes and other insects.\(^ {370}\) Nevertheless, many townspeople continued to believe that malaria was contracted from taking a bath or drinking stagnant water, and not from mosquito bites. Wagley advocated public health education programs both to modify entrenched traditional beliefs concerning disease and inform beneficiaries about the benefits of maintaining modern health care facilities. He observed that “the beliefs concerning health and disease…are part of their view of the world, which includes the cult of the saints, their belief in forest and water spirits, their faith in pajés and midwives, their dependency on prayers and incantations and their knowledge of herbal folk remedies. These many beliefs fuse magic with empirical knowledge.”\(^ {371}\)

Subsequent studies showed that public health officials were over-confident about the effects of DDT and perhaps too condescending about traditional herbal remedies. The use of DDT greatly reduced the incidence of malaria, but at a high cost to the

\(^{369}\) The World Health Organization endorsed the use of DDT for a worldwide malaria eradication campaign in the 1950’s.\(^ {369}\)

\(^{370}\) Wagley, 252-255.

\(^{371}\) Ibid, 256.
Amazonian ecosystem. Exposure to DDT killed an array of insect species on which other animals fed, contaminating the food chain, and affecting human and animal health.

In the 1970’s, the incidence of malaria surged in the Amazon, due to a combination of acquired resistance to DDT by several mosquito species and a heavy influx of migrants into the region, stimulated by the construction of the Trans-Amazonian and other highways. Migrations, infrastructure development, destruction of rainforests, and urbanization all contributed to the resurgence of malaria in the region. After decades of collaboration, Brazilian health authorities had confidence in North American public health expertise, and used DDT in the Amazon without sufficient testing and evaluation to determine its effects on organisms other than mosquitoes. Ironically, cinchona, a native Amazonian species and the source of quinine, proved to be a safer alternative to confronting malaria than DDT. Rubber tappers working alone in rainforests used this indigenous remedy to treat the symptoms of malaria by drinking an infusion prepared from the bark of the cinchona tree.

Notwithstanding the many shortcomings of the malaria program, United States funding and medical training laid the groundwork for the establishment of the first public health network in the Amazon. Rockefeller’s CIAA established a subsidiary corporation, the Institute of Inter-American Affairs, which continued to finance and support public health programs in the Amazon and elsewhere in the Americas in the post-war era. The Institute supported the construction in the Amazon of special laboratories for tropical disease research. SESP established a training and research center in Belém to prepare doctors, nurses and technical personnel to work on public health in the Amazon. The United States financed hospital construction in Manaus, Belém, Breves and Santarém. To
provide services to the interior, SESP converted riverboats into floating medical
dispensaries to provide basic care to people who lived along the rivers, transport supplies,
train local health workers, and conduct public health surveys. By the end of the war, over
thirty SESP riverboats plied Amazonian waters, providing basic health care services to
people who otherwise would have relied solely upon traditional medicine and local
healers. SESP riverboats continued to serve the caboclo people of the riverbanks in
the post-war era, providing them with health services and training local health workers to
work within their communities. From its creation in 1942 until its absorption by the
Health Ministry in 1960, SESP’s public health programs reached more people of the
Amazon over a longer period than any other program implemented under the Washington
Accords.

The Amazonian Rubber Elite: Post-war Blues

After the Allied victory in 1945, Amazonian elites became alarmed by the
imminent departure of the United States from the Amazon rubber program, fearing that
the withdrawal of North American funding would lead to a deep recession and the
collapse of the wild rubber production industry. Despite criticism of the RDC as a state-
sponsored competitor with the aviador trading system, the regional elite recognized that
the RDC had stimulated the Amazonian economy by co-financing the Rubber Credit
Bank to fund the revival of the rubber estates, guaranteeing the purchase of all the rubber
the Amazon could produce, and investing in transportation infrastructure and equipment.

372 CIAA, “History of the Office of the Coordinator of Inter-American Affairs,” (Washington, D.C: GPO,
1947), 116-123.
The RDC left a lasting legacy by building airports and establishing air services that connected Amazonian cities with each other and the rest of Brazil. Until World War II, travel to the Amazon had involved long and arduous journeys, even for the elites. Businessmen and government officials who traveled between São Paulo or Rio de Janeiro and the Amazon would be away for weeks, communicating only sporadically with their headquarters. With the option of air connections, travel time between the Amazon and the Southeast was reduced to only a few days, facilitating the process of integrating the Amazon into the economic and political life of Brazil.

Prices paid by the United States for Amazonian rubber (averaging 45 cents per pound) were much higher than pre-war prices for Asian plantation rubber, which sold for between 18 and 24 cents per pound. The Amazonian rubber elite was pessimistic about the prospects for an international market for their production after the war was over and the Southeast Asian plantations liberated from Japanese control resumed production. In 1945, reports circulated that stocks of 250,000 tons of Southeast Asian plantation rubber would be ready for shipment soon after the defeat of Japan.\textsuperscript{373} Compounding the problems of Amazonian producers, they also faced competition from international producers of synthetic rubber. The Amazonian elite had reason to worry: by 1947, the international price of natural rubber plummeted to pre-war levels.\textsuperscript{374}

Amazonian rubber estates began to close their operations in 1946, expecting the end of the mini-boom stimulated by the wartime alliance. Vividly recalling the collapse of the rubber boom in 1912, many Amazonian rubber producers decided to convert their

\textsuperscript{373} Oliveira, 132.
\textsuperscript{374} Allen and Truslow, 18.
estates to other extractive or agricultural activities, while others temporarily abandoned their rubber estates.

Eládio Lobato, a former seringalista whose father owned about 100 rubber trails (estradas) in Pará during the war years, commented during an interview (see chapter III) that while the United States did a lot to help Brazil produce rubber during the war, he was disappointed that the assistance ended when the war was over.375 Like most seringalistas, the Lobato family assumed that the departure of the United States government would mean the collapse of the Amazonian rubber industry. In 1946, they abandoned the rubber business in light of the forthcoming withdrawal of North American financing. The elder Sr. Lobato converted his estates into cacao production, while his son, Sr. Eládio, bought a sugar mill. Sr. Eládio employed many of his rubber tappers in his sugar and cachaca business, which prospered and financed his entry into local politics in Pará.

The Lobatos did not anticipate that the Brazilian federal government would provide price supports for the Amazonian rubber industry after the RDC departed. In deciding to abandon rubber production due to falling international prices and the departure of international investment capital, the Lobatos reflected the traditional dependency of the Amazonian rubber elite on global rather than national actors.

In another interview, Lizio dos Santos Capela, a Portuguese immigrant who had worked as a trader during the war for the aviador firm J. Coimbra & Co., Ltda. in Belém, told a similar story. He recalled that soon after the war, rubber production declined at the trading posts that sold rubber exclusively to his firm.376 In this case, the aviador, J.

375 Interview with Eládio Lobato, Belém, July 13, 2006
376 Interview by author with Lizio dos Santos Capela, June 20, 2006, Belém.
Coimbra, controlled the trading posts at which their rubber tappers had to sell their production, but the company did not claim to own the land, which remained in the hands of the *seringueiros*. A few rubber tappers continued to produce for J. Coimbra after the war, but Sr. Capelo reported that both demand and production slumped after the RDC began to withdraw from the Amazon. Although these stories about leaving the rubber business after the war are anecdotal, they reflect a trend. Compared to 1945, Brazil’s natural rubber production decreased by 3,000 metric tons, or 13 percent in 1946.\(^{377}\)

**National Rubber Conference: Demanding State Protection**

The Amazonian commercial associations geared up for a major lobbying effort to convince the federal government to intervene to support natural rubber prices at the same levels as prevailed under the Washington Accords, which were due to expire on June 31, 1947.

Tire and other rubber products manufacturers of São Paulo, chafing under wartime restrictions on crude rubber, looked forward to an abundant supply of cheap rubber from the international market. By 1946, rubber manufacturers were producing more than a half a million tires a year, consuming 45 percent of Brazil’s natural rubber production as pent-up demand for motor vehicles surged.\(^{378}\) The most important rubber manufacturers in the post-war era were Pneus Brasil, a domestic company, as well as Brazilian subsidiaries of North American corporations Goodyear and Firestone. It was in the manufacturers’ interest to obtain access to abundant supplies of natural and synthetic

\(^{377}\) Dean, 170-171.
rubber at the lowest possible prices. The price of Southeast Asian rubber was one-third of the price of Amazonian rubber.

Both crude rubber producers and tire manufacturers looked to the Brazilian government for a solution that would support their conflicting commercial interests. By re-stimulating the wild rubber industry to supply its wartime requirements, the United States government fostered a relationship of dependency between Amazonian rubber producers and the Brazilian state.\(^\text{379}\) When the United States government withdrew in 1947, the Brazilian government became the largest shareholder in the Rubber Credit Bank (BCB), which financed rubber production and had a monopoly on the purchase of rubber.

To deal with the post-war collapse of international rubber prices, Brazil’s government convened a National Conference on Rubber to make recommendations to the government and Congress. The conference took place in Rio de Janeiro from July 22 to August 8, 1946 under the chairmanship of Firmo Dutra, President of the Rubber Credit Bank (BCB).

Amazonian commercial associations led a major lobbying effort to convince the federal government to support natural rubber prices at the same levels as established under the Washington Accords. Wild rubber producers’ associations tried to increase their profit margins with a proposal to abolish the requirement under the Estado Novo’s labor contracts that 60 percent of the value of the production would be reserved for the rubber tapper, but the proposal was not approved by the government. The Amazonian elite also demanded improvements in maritime, river and air transportation, as well as

\(^{379}\) Pinto, 102-103.
more frequent deliveries of basic supplies at lower prices from the rest of Brazil to the region.\footnote{Oliveira, 138.}

Rubber producers enlisted the support of senior Brazilian army officers by contending that a price collapse would lead to an exodus of rubber tappers from the Amazonian hinterland to the cities, leaving the vast frontier vacant and unprotected.\footnote{Dean, 115.} The military feared that an unoccupied Amazonian frontier would be a tempting target for both Brazil’s neighbors and the United States. Nelson Rockefeller’s advocacy of grandiose infrastructure projects to link the Orinoco and Amazon Rivers in a vast transportation network fueled the Brazilian military’s suspicions that the ultimate goal of North American capitalist interests was to create their own sphere of influence in the Amazon in order to exploit its mineral resources.

During the war, United States technical experts had unprecedented access to Brazil through programs to support the production of strategic materials for the Allies. Would the United States later exploit information it garnered about Brazil’s natural and mineral resources to advance its own commercial and strategic interests? Despite the Brazilian government’s assessment that, overall, Brazil benefited politically and economically from its World War II alliance with the United States, nationalists were wary of the post-war intentions of the North American superpower. Therefore, instead of supporting the rubber manufacturers of São Paulo who produced vital inputs for the armaments industry, the Brazilian military supported measures to keep Amazonian rubber producers in business because rubber tappers worked in rainforests on the frontier, protecting Brazil’s sovereignty by penetrating isolated border areas. Rather than relying
on international supplies of crude rubber for the manufacturing industry, the military supported an entirely national rubber industry in which Amazonian rubber production was vertically integrated into the manufacturing sector in the Southeast.

To the military, the dispersal of rubber tappers along the Amazonian frontier was an important element of its national security strategy of occupying the borderlands. The military had no interest in supporting the return of the rubber soldiers to their original homes elsewhere in Brazil once the war was over. Brazil’s military doctrine was to populate the Amazon and fill its vast, uninhabited spaces with Brazilian colonists in order to secure national sovereignty over the region.\textsuperscript{382} The nature of wild rubber extraction required migrant rubber tappers to disperse throughout the Amazonian hinterlands, rather than congregate in the cities, where they would be of little use in protecting Amazonian frontiers. From their perspective, Brazilian nationalists had good reason to try to reverse the exodus of rubber tappers from the hinterlands to the cities. Peter Smith argues that for the military, the purpose of economic development in the Amazon was not to improve the conditions of the people who lived there, but to occupy the region in order to deter foreign penetration.\textsuperscript{383}

Supported by the Rubber Credit Bank chairman, the rubber producers persuaded the conference to recommend guaranteed minimum prices for natural rubber, subject to periodic revision. The manufacturers agreed to buy Brazilian rubber, in return for full protection by the government for their products in the domestic market. All tires sold in Brazil would be made in Brazil and international competition was to be kept out by

\textsuperscript{383} Dean, 115.
protectionist tariff barriers. The conference recommended that the government establish a monopoly over rubber purchases and agree to stockpile excess production.\textsuperscript{384}

Brazil’s Congress, restored after eight years of \textit{Estado Novo} dictatorship, accepted the conference’s recommendations and adopted a law in September 1947 to govern the domestic rubber industry. The law provided that the Rubber Credit Bank would remain the exclusive buyer of Amazonian rubber and would guarantee minimum prices for the best quality rubber (\textit{Acre-fina}), i.e., 18 cruzeiros per kilo at the rubber trading posts, and 24.60 cruzeiros per kilo delivered to the Rubber Credit Bank in Belém.\textsuperscript{385} The Washington Accords expired as scheduled on June 30, 1947, and the rubber extraction industry was given a three-year reprieve by the Brazilian government. Warren Dean contends that valorization by the state of natural rubber prices “guaranteed the survival of the archaic rubber-gathering system and, not incidentally, of the Rubber Credit Bank, at an immense cost to Brazil.”\textsuperscript{386} Manufacturers paid higher prices for their rubber inputs, consumers paid more for their finished products, and state support for rubber cultivation research and experimentation was reduced.

The Brazilian state became the arbiter of the rubber economy. The state mediated the interests of the Amazonian rubber producers and the São Paulo rubber manufacturers and cobbled together a strategy that protected both from foreign competition. The rubber producing sector was redirected from the international to the domestic market. It is telling that the Brazilian government decided that it could not abandon the Amazonian rubber producers to the vagaries of the international markets, but decided to abandon the rubber soldiers in the Amazon after the war ended.

\textsuperscript{384} Ibid, 110-111.
\textsuperscript{385} Ibid.
\textsuperscript{386} Ibid.
Amazonian rubber production increased in 1947 but the BCB lacked adequate funding to buy rubber at the controlled prices. In response, rubber traders hoarded their production, causing supply shortages for the manufacturing industry. To confront this challenge, the Commercial Association of Amazonas (ACA) convoked a second National Rubber Conference, which took place in Manaus in April, 1948. The manufacturing sector did not participate, and the conference recommendations reflected the positions of the Amazonian rubber elite, who proposed a permanent government monopoly over the purchase and sale of rubber; increased capitalization of the BCB to cover the costs of buying rubber at fixed prices; inclusion of lower quality wild rubber under the price control regime; and a restoration of the traditional role of *aviador* firms in financing the rubber trade unhindered by competition from the BCB. Above all, the conference urged President Dutra and Congress to appropriate sufficient funding in the 1949 budget for the purchase of natural rubber at the controlled prices established in 1947.

Despite guaranteed prices, the rubber extraction industry could not keep up with the demand generated by the domestic tire manufacturing industry. After peaking in 1947, natural rubber production decreased in 1948, 1949 and 1950, due to the withdrawal of North American financing and technical assistance upon the expiration of the Washington Accords in mid-1947. Many rubber estates were abandoned, and their workers drifted into Amazonian cities, seeking a better life than the servitude of perpetual indebtedness.

Yet another national rubber conference convened in 1949 to address issues of productivity in the face of surging demand from the São Paulo manufacturers. The conference recommended the creation of model rubber estates, administered by
government research institutions, where rubber estate operators and tappers could learn the latest production techniques, including a chemical process to laminate latex, thereby reducing impurities contained in the traditional smoked balls or pellets. Model rubber estates were to include crop farming and animal husbandry to diversify production.\(^{387}\)

In 1950, Congress passed a new law, revising the 1947 legislation which governed the rubber trade. The law transformed the BCB into the Banco da Amazônia, a regional development bank with a mandate to finance not only the rubber trade, but other agricultural, commercial and industrial activities in the Amazon. Furthermore, the Bank’s monopoly over purchases of natural rubber was extended to the entire country to include rubber produced on plantations in Bahia and São Paulo.\(^{388}\)

If it became necessary to import crude rubber, the Amazonian commercial associations recommended that natural rubber be purchased from neighboring South American countries (where production costs were similar), rather than from Asia. Nevertheless, Brazil imported its first shipment of rubber from Malaya in 1951, to the dismay of nationalists, who bitterly recalled Henry Wickham’s exploit of smuggling precious Amazonian seedlings that were later planted in Southeast Asia.\(^{389}\) In a speech to Congress in May 1951, Francisco Perreira da Silva, a deputy from Amazonas, made a dramatic appeal to nationalists in the military. Contending that the influx of large supplies of Asian rubber would lead to the abandonment of Amazonian rubber estates and an exodus of rubber tappers, da Silva declared that six Brazilian frontiers would become depopulated and wide open to foreign incursions from neighboring states and “the sovereignty of Brazil over the waters of the Great River would become a joke in the

\(^{387}\) Oliveira, 145-148.
\(^{388}\) Ibid, 148.
\(^{389}\) Dean, 115.
Spanish glossary.” Da Silva’s speech was immediately published as a pamphlet by Brazil’s War College. Until it came to power in the military coup of 1964 and launched an ambitious program to occupy, colonize and develop the region, the Brazilian military was a supporter of the Amazonian extractive rubber industry as a means of populating the isolated frontier with Brazilian nationals and protecting the borderlands.

Rubber Cultivation in Post-War Brazil

After the war, the Brazilian government did little to stimulate the development of rubber plantations. Having invested around $12.8 million in the Amazon project, in late 1945 the Ford Motor Company gave up its plantations to the government for only $250,000, a sum equal to the severance pay Ford owed its workers. From a total of 3.2 million rubber trees, the plantations produced only 115 tons of rubber in 1945, in contrast to the 450 tons that were needed to break even. In the post-war era, the Ford Motor Company no longer needed its own rubber plantations because it could acquire huge quantities of natural and synthetic rubber in global markets at much lower prices than its Amazonian investments could offer. The local rubber elite showed its hostility to efforts to cultivate rubber in the Amazon by recommending to the Brazilian government that the former plantations be divided into lots and transformed into agricultural colonies.

Warren Dean argues that the Brazilian government paid too a high price for subsidizing the Amazonian rubber elite instead of developing rubber plantations. He contends that the government should have capitalized on the acquisition of the Ford

391 Dean, 105.
plantations by investing heavily in rubber cultivation.\textsuperscript{392} Despite decades of experimentation, however, including grafting, breeding, cloning and hybridization, scientists and plantation managers could not find viable solutions to waves of devastating epidemics of South American Leaf Blight, which destroyed monocultures of plantation rubber in the Amazon. Lobbied by the extractive rubber producers to support their flagging industry, the government reduced its support for experimental rubber cultivation. Although under-funded, Brazil’s Agronomic Institute of the North (IAN) continued to work on developing rubber plants that were both disease-resistant and productive, but rubber plantations never flourished in the Amazon.

With wars raging in Malaya, Vietnam and Korea, the prices of rubber imports from Southeast Asia tripled in the early 1950’s. The Ministry of Agriculture instructed the major tire manufacturers to invest in developing rubber plantations, threatening to impose the penalty of losing their import quotas if they did not cooperate. Rubber manufacturing companies reluctantly agreed and established plantations in Pará, Bahia and São Paulo. Despite scientific experimentation, use of improved technologies, and substantial financial investments by multi-national rubber companies, the plantations did not succeed, due to repeated attacks of South American Leaf Blight. Although experiments revealed that rubber cultivation was more promising in different climate zones, such as the cooler São Paulo highlands or the drier region of Mato Grosso, where the leaf blight did not thrive, raising productivity of rubber trees on Brazilian plantations remained a challenge.\textsuperscript{393}

\textsuperscript{392} Ibid, 111-112.  
\textsuperscript{393} Ibid, 153-154.
In contrast, the wild rubber industry was protected not only by political lobbying, but also by the biodiversity of Amazonian rainforests that surrounded rubber tree groves and sheltered them from Leaf Blight epidemics. It took the scientific community several more decades to acknowledge that in the Amazonian environment, rubber extraction was a more sustainable mode of production than clearing forests to cultivate plantation rubber. Rubber tappers who left the estates to become independent small producers of cultivated rubber found that the seven-year wait for their trees to become productive and the measures required to try to protect them from South American Leaf Blight epidemics were prohibitively expensive. Many turned to farming crops while others, particularly in Acre, formed forest communities of independent rubber tappers.

In the twenty-first century, Brazilian rubber plantations outside of the Amazon have become more productive, although they still periodically experience plagues of the South American Leaf Blight. In 2007, Brazil produced more than 176,000 tons of plantation rubber, mostly from São Paulo, followed by Mato Grosso and Bahia. In 2006, Brazil produced only 3,942 tons of wild rubber, principally from Amazonas (52%) and Acre (36%).  

Brazil’s total rubber consumption was 260,000 tons in 2007, making the country a net importer of rubber.

Abandonment of the Rubber Soldiers

Nobody knows how many rubber soldiers died in the Brazilian Amazon during the Battle for Rubber. Scholars estimate that up to half of the migrant rubber tappers

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395 Malaysia Rubber Board Digest, September, 2007.
recruited to work in the Amazon either died or disappeared during the wartime campaign.\textsuperscript{396} Despite promises by recruiting authorities to send the rubber soldiers back to their homes after the war, the Brazilian government left them on the rubber estates. Many thousands of rubber soldiers disappeared in the Amazon, but the Brazilian government did not make an effort to locate them.

The death or disappearance of migrant rubber tappers was nothing new in the Amazon. During the nineteenth-century rubber boom period, it was common for migrant workers to arrive in the Amazon from the Northeast and disappear into the rainforest. Rubber barons and estate managers did not assume responsibility for the welfare of their workers, and government authorities rarely exercised jurisdiction in the rubber estates.

Under the Washington Accords, the Brazilian government was responsible for the mobilization and transport of rubber soldiers from the Northeast and other parts of Brazil to rubber estates in the Amazon. In addition to the rubber soldiers, marginal rural workers and their families were encouraged to move to the Amazon under the Vargas government’s colonization programs, which portrayed the Amazon as a lush land of plenty where it was easy to make money from rubber tapping and farming. Nelson Rockefeller’s CIAA contributed to the construction of this deceptive image of the Amazon by contracting Walt Disney to make a short film in 1944 entitled “\textit{The Amazon Awakens},” a documentary filmed in the Ford Plantations that portrays the Amazon as a fertile region ready for immigration and agricultural development.\textsuperscript{397}

SEMTA and CAETA promised the rubber soldiers that they would be transported back to their original homes provided they fulfilled their two-year contracts and the war

\textsuperscript{397} Walt Disney, “The Amazon Awakens,” 1944, NAR Personal, RAC.
was over. The Brazilian government never sent officials to the rubber estates to find the rubber soldiers and organize their return to their original homes. The United States government considered the welfare and repatriation of the rubber soldiers to be the sole responsibility of the Brazilian government.

After the war, indebted to the estates and lacking financial resources, the rubber soldiers fled to Amazonian cities in order to seek help from the government that had recruited them. Thousands of rubber soldiers managed to travel by river from their estates to Rio Branco, Pôrto Velho and Manaus. Martinello concludes that the withdrawal of the United States government from the Amazon starting in late 1945 and the expiration of the Washington Accords in mid-1947 cast serious doubts on the future viability of the rubber estates and provoked an exodus of rubber soldiers.

In 1946, alarmed at the influx of thousands of indigent rubber tappers to the cities, Amazonian state governments appealed to the National Department of Immigration (DNI) for assistance. The region’s governors feared that large influxes of indigent rubber soldiers into Amazonian cities would overwhelm the cities with beggars and lead to looting and disorder. 398

In response to their appeal, the DNI assisted around 4,000 rubber soldiers and other migrant workers to return to their homes from Belém from January 1946 through June 1947, using CAETA’s remaining financial assets of around US $130,000 (Cr. 2.6 million). 399 Rubber soldiers had to find their own way to Belém, however, either by paying for their transportation with money or services, or by traveling as stowaways. After the DNI’s limited transportation assistance budget was exhausted, many rubber

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398 Martinello, 355-359.
399 Ibid.
soldiers were left stranded in Belém. In desperation, some walked for months through rainforests and deserts until they reached Ceará. The DNI did not try to find the rubber soldiers in the Amazonian hinterlands and transport them to Belém. During both the recruitment and the “demobilization” phase of the rubber campaign, the presence and authority of Brazilian agencies responsible for the migration of the rubber soldiers extended only as far as Belém and Manaus.

Unknown thousands of rubber soldiers died in the rainforests without any registrations of their deaths. Following the fall of the Vargas regime, the Brazilian press published articles claiming that over 23,000 out of a total of 50,000 rubber soldiers, other migrant laborers, and their families died in the Amazon during the Battle for Rubber. In July 1946, Brazil’s Constituent Assembly created a Parliamentary Commission of Inquiry on the Rubber Campaign (CPI) to hold hearings on the conditions and fate of the rubber soldiers. Minister for Economic Mobilization João Alberto Lima de Barros testified that the imperative of winning the war required great sacrifices by the rubber soldiers “because on that occasion, it was necessary to obtain rubber at any cost.” Comparing the rubber soldiers to military men in combat, Lima de Barros declared that during war, nobody will ask who was responsible for the defeat of the British army in Africa; what is important is to win.” To the government officials responsible to managing the Battle for Rubber, the rubber soldiers - like combat soldiers - were expendable.

A reliable estimate for the total number of migrant workers who participated in the Battle for Rubber has not been established. The Director of the National Immigration

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400 Ibid, 355.
Department (DNI) testified that more than 52,000 rural workers and their families migrated to the Amazon during World War II.\textsuperscript{403} This figure includes rubber soldiers and other agricultural workers. Pedro Martinello calculated a total of 55,339, including those who migrated between 1941 and 1943, before the Brazilian government began recruiting rubber soldiers to implement the Washington Accords. Lúcia Morales considers this number too high, and argues that bureaucratic infighting between the DNI, normally in charge of internal migration; and SEMTA and CAETA, created to recruit and transport the rubber soldiers, contributed to the statistical discrepancies.\textsuperscript{404} Furthermore, the DNI counted all migrants and their families who settled in the Amazon during the war years - no matter what their occupations - while SEMTA and CAETA counted only the rubber soldiers. SEMTA and CAETA together recruited about 26,123 male rubber soldiers, and CAETA also transported 8,065 family members.\textsuperscript{405}

Despite testimony from government officials, public health doctors, and former rubber soldiers, the Commission declined to estimate the number of rubber tappers who died during the Battle for Rubber. In a bizarre statement, the parliamentary commission’s \textit{rapporteur} explained that the Commission did not want to provoke a scandal or offend public sensibilities by publishing high death toll estimates.\textsuperscript{406} Official discourse about the patriotic rubber soldiers and wartime sacrifices disguised the brutal reality of their abandonment in the rainforests by the government that sent them to the Amazon.

\begin{flushleft}
\textsuperscript{403} Ibid, 349  \\
\textsuperscript{404} Morales, 90-93.  \\
\textsuperscript{405} Relatório da CAETA, December, 1945.  \\
\textsuperscript{406} Martinello, 352.
\end{flushleft}
A mantle of silence descended upon the fate of the thousands of rubber soldiers who never returned to their original homes.\textsuperscript{407} They did not all die. Mail service was sporadic in the Amazonian hinterlands, and many rubber tappers were illiterate and did not have the resources to communicate through the services of scribes. Some men chose not to return to their former homes because they established roots in the Amazon, forming new families with local women. Others drifted into Amazonian cities and became part of the marginal populations of Belém, Manaus, Rio Branco, Pôrto Velho and other regional urban centers.

The post-war era marked a period of increasing urbanization in the Amazon, and the requirements of growing urban populations opened job opportunities for former rubber tappers. Rio Branco, the capital of the federal territory of Acre, saw its population nearly double from 4,949 in 1940 to 9,707 in 1950, largely because of the exodus of rubber tappers from abandoned rubber estates to the city.\textsuperscript{408} In the late 1940’s, many former rubber soldiers found jobs in public works construction for the city of Rio Branco, while others joined Acre’s Territorial Frontier Guard.\textsuperscript{409} The government of Amazonas employed veterans of the Battle for Rubber in agricultural colonies, where they raised crops and tended cattle, supplying food for Manaus and other growing urban centers. A growing lumber industry was also a source of employment.

Why did the Brazilian government abandon the rubber soldiers? Visiting the Amazon in 1940, two years before the negotiation of the Washington Accords, Vargas authorized 4,000 free passages for the transportation of northeasterners to the Amazon.\textsuperscript{410}

\textsuperscript{407} Cytrynowicz, 220.
\textsuperscript{408} Martinello, 363.
\textsuperscript{409} Ibid.
\textsuperscript{410} Morales, 128.
During the Battle for Rubber, the Vargas government received North American financing for the migration of tens of thousands of rural workers to the Amazon. Was it in the government’s interest to help the rubber soldiers return to the Northeast and other regions of Brazil once they were settled in the Amazonian hinterlands? Brazil’s policy was to colonize the “empty” Amazon frontier with the marginal rural poor from the Northeast. Why would the Brazilian government pay to bring the rubber soldiers home to the backlands of the Northeast where they would join the ranks of marginal rural workers, instead of leaving them to settle permanently in the under-populated Amazon? Bringing them home after the war was not a government priority.

**Flight from the Forests: Rubber Tappers’ Personal Stories**

Most rubber tappers who continued to work on the estates remained locked into indebtedness. Returning to the story of Luiz Henrique de Sousa, who migrated from Ceará to Acre and married an Indian (see Chapter III), his son Jaime told the author that after the war Luiz worked on several rubber estates, although he never was able to settle his debts to any one of them. Each estate manager who hired him paid off his debts to his previous *seringalista* and debited the amount to his account. Luiz de Sousa worked on the rubber estates until he died in the 1970’s. His son, Jaime, also worked as a rubber tapper, starting as a child during the Battle for Rubber. At the age of 25, he married a 13 year-old *caboclo* orphan, explaining that he pitied her because she had no one to take care of her.

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411 Interview with Jaime Henrique de Sousa, July 20, 2006, Palacio de Rio Negro, Manaus.
On the rubber estates, Jaime heard about Chico Mendes but never met him or any representative of the rubber tappers’ union. Sr. Jaime eventually realized that he could not support his growing family as a rubber tapper and or hope ever to settle his accounts. In 1980, Jaime left his employment on a rubber estate, still in debt, to look for better opportunities to support his large family. His boss was very angry that he left without settling his accounts, but did not try to use force to stop him.

Sr. Jaime and his family traveled hundreds of miles to Manaus, paying their passage by selling their subsistence farm animals. They were destitute after they arrived because finding a job was much more difficult in the city than in the interior because in Manaus, he did not have a “padrino” (godfather) to help him, nor did he know how to find work in a city. After three years of working on the docks, he found better employment at the Balbina electric power dam near Manaus.

After another three years, Sr. Jaime was able to buy a simple wooden house in Manaus. He eventually met the coordinator of the Palacio de Rio Negro Museum in Manaus who offered him the job of constructing and maintaining exhibits on the wild rubber industry. He built a rubber tapper’s hut in the museum’s gardens and became a guide, explaining and demonstrating the work of rubber tappers to visitors. Respected and appreciated at the museum, Sr. Jaime succeeded in making a better life for himself and his family by migrating to the city. Had he stayed on the rubber estates of Amazonas, Sr. Jaime would probably still be engulfed in debt.

Jaime and his wife have 11 children, 22 grandchildren and 2 great-grandchildren, all living in Manaus. Each of their children has some education and is literate, and two are working. Jamie’s sons and daughters are single and still live with their parents as an
extended family. They have become an urban *caboclo* family, the product of a hybrid culture, combining northeastern and indigenous traditions.

Jaime’s father, Luiz de Sousa, died before he could receive his government pension as a veteran of the Battle for Rubber. As the veteran rubber soldiers grew too old for manual labor, the Catholic Church in Acre, led by Bishop Giocondo Grotti, advocated for legislation to provide welfare assistance for them.\(^{412}\) In the 1970s and 1980s, Catholic Church activists helped veteran rubber soldiers to organize associations to advocate for government pensions. In 1974, 1,744 veteran rubber soldiers and NGO activists signed a petition to demand the pensions they had been promised by the government if they became indigent in their old age.\(^{413}\)

Under Brazil’s Constitution of 1988, veteran rubber soldiers finally became entitled to a pension equivalent to that of a private in the army. Emerging from 21 years of military dictatorship, a democratically-elected Brazilian Congress drafted a new constitution in 1988. The constitution affirmed that a monthly pension of two minimum wage salaries was to be paid to needy rubber tappers who, “responding to the appeal of the Brazilian Government, contributed to the war effort, working in rubber production in the Amazon region during World War II.”\(^{414}\)

After many years of advocacy, veteran rubber soldiers, Catholic Church social activists, and human rights organizations persuaded Brazil’s Congress to include all rubber tappers who produced rubber in the Amazon during the Battle for Rubber, instead of limiting pension rights to the rubber soldiers recruited and “mobilized” by government

\(^{412}\) Martinello, 364.
\(^{413}\) Ibid.
\(^{414}\) Constitution of the Federal Republic of Brazil, 1988, Article 54.
agencies. The Constitution also stipulated that pension benefits were transferable to needy dependents of World War II-era rubber tappers.

Charged with implementing the distribution of these benefits, however, the Ministry of Social Welfare required documentary proof that the applicants had been recruited as rubber soldiers. By 1988, many had already died and others could not find their documentary proof, having lost them or left them with their rubber estate managers. Catholic Church and human rights activists helped indigent rubber tappers and their widows to claim their pensions based only on oral evidence and witnesses rather than documents. In 1991, Clovis Barreto, President of the Association of Rubber Soldiers of Amazonas, told a North American journalist that of the 5,000 surviving veterans of the Battle for Rubber in the state of Amazonas, only 300 had received pensions. ⁴¹⁵ José Paulino da Costa, director of the Retirees' and Rubber Soldiers' Union of Acre complained to a journalist in 2006 that the government had denied pensions to veterans of the Battle for Rubber who could no longer produce their labor contracts, issued in the 1940's by the Vargas government. ⁴¹⁶

Sebastião Moreira received a pension for his services during World War II, although he was not recruited as a rubber soldier. He was the father of Severino Elisando Moreira de Santos, interviewed in Amazonas (see chapter III). Sebastião Moreira migrated to Amazonas from Ceará with his parents before World War II and worked all his life as a rubber tapper. Severino fled the rubber estates in 1976 to settle in Manaus, and his father joined him in the city after he became too old to extract rubber. In Manaus, the Association of Rubber Soldiers of Amazonas helped Sebastião Moreira to claim his

pension, based on oral testimony that he had worked as a rubber tapper during World War II. Although he no longer had documents to substantiate his wartime service, Sebastião Moreira was granted a government pension as a veteran rubber soldier in 1995, when he was 69 years old. Access to the Association of Rubber Soldiers of Amazonas was crucial for Sebastião’s successful efforts to collect his government pension. Similar associations of veteran rubber soldiers were established in Rio Branco, the capital of Acre; and Porto Velho, the capital of Rondônia.

Despite all the hardships he endured, including many bouts of malaria, Sr. Sebastião spoke with pride about his service to Brazil during World War II. He was not aware of the involvement of the United States in supporting the Battle for Rubber. In the 1980s, Sebastião Moreira told his family about Chico Mendes and the rubber tappers’ movement in Acre, but he never met a labor organizer.

Severino considered the conditions of rubber tappers to be “a form of slavery” and fled to Manaus still indebted to his rubber estate. Severino started working outside the city as a day laborer on vegetable farms, where, for the first time, he earned his wages in cash. He explained that his life improved while doing this work because he could finally get enough sleep, rather than work in the forest all night to produce rubber. In 2006, he was working on an ecotourism project in a forest a few hours downriver from Manaus. Fleeing the rubber estates and migrating to the Manaus area enabled Severino to help his father obtain his pension and send his own children to school.

These personal histories confirm that rubber tappers had little prospect of getting out of debt to their rubber estates or educating their children during the post-war era.
Their flights to the city eventually opened better opportunities for them to earn their livings and provide for their families.

Rubber Extraction versus Agricultural Development

Returning to Pará in 1948 after having worked in the Amazon for SESP during the war, Charles Wagley observed that the region was still based on extractive industries.⁴¹⁷ In 1953, President Vargas, who returned to power as a result of an election in 1950, created the Superintendency for the Valorization of the Amazon (SPVEA) in 1953 to finance development programs and infrastructure projects, especially roads. SPVEA and the Banco da Amazônia, successor to the Rubber Credit Bank (BCB), encouraged diversification of the economy away from rubber gathering - a shift in state support from extractive industries to agricultural production.⁴¹⁸ Confronted by rising inflation and a credit shortage, rubber producers were driven out of business.

Feeding the growing urban population of the Amazon required more food than was available from imports from the Southeast, leading SPVEA and the Banco da Amazônia to give high priority to financing agricultural projects. Aviadores began to call in their outstanding debts, foreclosing on rubber estates that had been offered as collateral, and holding on to the estates in anticipation of rising prices for forested land that would be converted to ranches and farms. Instead of valuing Amazonian land for what its forests produced, agricultural developers began to acquire land for its potential to produce after its forests were razed.

⁴¹⁷ See Wagley, Amazon Town.
Getúlio Vargas did not consider the development of the Amazon a high priority during the early 1950’s, focusing instead on the keystone of his economic policy: import substitution industrialization in the Southeast. Vargas’ vision was to make Brazil an industrialized nation and end its dependency on exporting primary agricultural products to purchase expensive imports of manufactured goods.

Nationalists within Vargas’ government were concerned that North American capitalists, led by Rockefeller interests, would press for access for foreign investors to Brazil’s natural resources, particularly in the Amazon, before the Brazilian state had fully integrated the region and adopted laws to protect its national interests. In 1940, Standard Oil proposed a partnership with the Brazilian government for the oil exploration, which the *Estado Novo* rebuffed. During World War II, Rockefeller, as Roosevelt’s Coordinator for Inter-American Affairs, proposed the development of a waterway that linked the Orinoco and Amazon rivers, thus connecting the oil fields of eastern Venezuela with the Amazon Valley - an idea that the State Department rejected. The Rockefeller family owned Creole Petroleum in eastern Venezuela and hoped to transport oil from the Orinoco River into the Amazon in order to provide fuel for the region’s development. After Vargas was deposed in 1945, Standard Oil persuaded the Truman Administration to advocate for its participation in oil refining concessions that Vargas had granted exclusively to Brazilian companies.

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419 Colby, 615-616.
When he returned to power as an elected president, Vargas resolved to establish a government monopoly over petroleum exploration, production, and new refining, persuading Congress in 1953 to establish the state-owned oil company, Petrobrás. By granting Petrobrás exclusive rights to explore for oil in Brazil, the Vargas government thwarted the aspirations of Standard Oil and other international oil companies to search for petroleum in the Brazilian Amazon. Instead, North American oil investments penetrated the eastern slopes and Amazonian lowlands of the Andean countries, where their activities were highly destructive both to the ecology and local indigenous communities. In 1960, seven years after its creation, presidential candidate Jânio Quadros publicly criticized Petrobrás for drilling very little and just “playing” at exploring for petroleum in the Amazon.

In the late 1950’s, the Brazilian government revived the “March to the West,” embarking on a long-term national project to populate the interior of the country, including the Amazon. The first step was to transfer the capital from Rio de Janeiro to a futuristic city to be built in the sparsely populated interior. Under the leadership of President Juscelino Kubitschek, Brasília was constructed in the center of the state of Goiás. The government imported hundreds of thousands of workers, mainly from the Northeast, who built the city in record time so that Kubitschek was able to inaugurate the new capital on April 21, 1960, while he was still in office.

In the late 1950’s, the Kubitschek government initiated the construction of the Belém-Brasilia Highway, which for the first time, connected the Amazon by road to the

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capital and major urban centers of Brazil. The highway marked the beginning of a new and devastating era of occupation, colonization and development of the Amazon. By the early 1960’s, Pará had become a major agricultural and ranching center, with extensive forest clearings along the entire route of the Belém-Brasilia highway.422

The Amazon under Military Rule

The military coup of 1964 ended Brazil’s nineteen-year experiment with democracy and ushered in an era of occupation, colonization and predatory development of the Amazon, without regard for its unique environment or for the rights of its indigenous peoples. The military government regarded the vast Amazonian frontier as an “empty desert” and cited geopolitical and security considerations to justify its program of occupying the Amazon before other countries could do so. Calling the rainforests of the Amazon a “desert” recalls the brutal “Conquest of the Desert” conducted by Argentina in the late nineteenth century against indigenous societies on its southern frontier in order to make way for “civilization.” To Brazilian military strategists, a “desert” signified a region which had not yet been “civilized” by the presence of government agencies and Brazilian settlers.

Brazilian General Golbery do Couto e Silva, one of the architects of the military government’s national security policies, stressed the importance of developing Brazil’s “uninhabited” frontier and “flooding the Amazon region with civilization” in order to prevent the uninhabited expanses of the Amazon from becoming “paths to penetration”

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422 Davis, 29.
by foreign interests. Brazil’s Andean neighbors were also developing their Amazonian regions, and had welcomed foreign oil and mining investment east of the Andes.

The military government did not consider frontier indigenous populations as sufficiently “Brazilian” to secure the borders through their occupation of the land, and therefore decided to “Brazilianize” the rain-forested frontier through colonization and settlement by landless rural poor from other regions of Brazil, particularly the Northeast. According to a slogan adopted by the military government, colonization of the Amazon with the excess population of rural poor of the Northeast would provide "land without men for men without land." Deforestation was a natural consequence of a policy of colonization. Although wasteful of Amazonian forest resources, colonization of the Amazon by landless rural families was expected to relieve pressures for land reform elsewhere in rural Brazil and reduce the migration of rural workers into the cities.

In 1965, Brazilian officials learned of a proposal developed by Robert Panero at the Hudson Institute - a national security think-tank funded by the United States government - to link the Amazon and Orinoco Basins by constructing a series of dams and locks that would flood huge areas of rainforest and create five “great lakes.” The proposal was very similar to one that Nelson Rockefeller had advocated in 1942. Gerard Colby argues that the purpose of the Hudson Institute concept was to improve access to the mineral resources of the Amazon that had been identified as a result of aerial surveys by the United States Air Force. The surveys began during World War II under an

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423 Smith, 202-203.
425 Colby, 616-617
agreement with President Vargas that required the Air Force to provide the data to the Brazilian government and keep survey findings confidential. Concerned about the possibility of losing control over the natural resources of the region, nationalists were alarmed by the Hudson Institute’s proposal, which they suspected might be linked to the interests of foreign investors who had acquired large landholdings in the Amazon. Margaret Keck dismisses the plan, contending that it never surfaced except as the proposal of Robert Panero, who merely circulated the paper within the Hudson Institute.

The Hudson Institute never formally adopted the plan, nor was it proposed to the Brazilian government. Nevertheless, the Amazon-Orinoco plan became an additional catalyst for the military’s program to occupy the Amazon and secure Brazilian sovereignty over the region. In a book entitled “Amazonia and International Avarice” (A Amazônia e a Cobiça Internacional), Arthur Cezar Ferreira Reis, the governor of Amazonas during the mid-1960’s, vehemently denounced the plan as a “megalomaniac project” elaborated by the Hudson Institute without even consulting Brazil about its interests. Reis claimed that the Hudson Institute project treated Brazil as if it had already lost its sovereignty over the Amazon, “the immense space that our ancestors – soldiers, civilians and missionaries from every part of Brazil, and only Brazil - created as territory belonging to the national patrimony.”

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a politician, was a respected figure in the Amazon, and his nationalistic justifications for the military government’s plans to occupy the Amazon were influential.

In 1966, the military government launched “Operation Amazônia,” a massive five-year program to develop transportation, communication and energy infrastructure in the Amazon. Construction of the Trans-Amazonian Highway began in 1970 and was a key part of the government’s development offensive. Migrants were promised small parcels of land within 100 kilometers of either side of the entire Trans-Amazonian Highway. A network of Amazonian highways and roads was designed to facilitate massive migrations of landless rural families from the Northeast to the Amazon. The Cuiabá-Santarém Highway opened Mato Grosso and western Pará to colonization, provoking land conflicts with indigenous peoples along its route. (This region has become the soy frontier of the Amazon.) The Cuiabá-Rio Branco Highway, which followed the telegraph route that Rondon had opened in the early twentieth century, cut through isolated forested areas, opening the habitats of indigenous groups, rubber tappers, and traditional forest producers to colonization and development. John McNeill compares the construction of the Trans-Amazonian Highway, designed to weld the Amazon to the Brazilian nation-state, with Russia’s mega-project to consolidate and control its empire in the east by building the Trans-Siberian Railroad.  

The United States government consistently dismissed the military’s fears of foreign intervention in the Amazon as groundless, but Brazilian nationalists suspected that international efforts to protect the Amazonian environment and indigenous rights were smokescreens for advancing the interests of multinational companies in acquiring

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the region’s natural resources. North American and European leaders occasionally fueled this smoldering issue by declaring that threats to the Amazonian eco-system and its indigenous peoples were global issues that cannot be left up to individual countries to resolve.  

Developers Threaten Wild Rubber Producers

The construction of an Amazonian highway system provoked a wave of frontier expansion and agricultural development that threatened to destroy the forests on which the rubber extraction industry depended. Brazil offered generous tax and fiscal incentives for agribusiness and cattle ranching in the Amazon Basin. *Seringalistas* who fell deeply into debt in the late 1960’s and the 1970’s were able to sell their rubber estates at a good profit to ranchers from the Southeast. Ranchers hired workers to clear their forested land and convert it to pasture, selling the fallen logs to timber companies.  

Land titles to Amazonian rubber estates were murky because *seringalistas* did not normally purchase their rubber estates. Instead, *seringalistas* staked informal claims on the right to extract forest resources in a specific unexploited area and showed that they were making the forest productive by recruiting a labor force of rubber tappers who were required to sell their production exclusively to them. The government encouraged colonists to extract natural resources from the Amazon Valley, viewing the rainforests as economically worthless if they were not productive. Colonists and entrepreneurs were

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encouraged to settle the Amazonian frontier and appropriate unclaimed land to make the “empty” wilderness productive. Traditional land use by indigenous groups for hunting and gathering was not considered “productive.” Until the government subsidized Amazonian agricultural development in the 1970’s, the principle of *uti possedetis* applied in most of the region, and questions of land title and ownership arose only in cases of conflicting claims.

Both the *seringalistas* and the rubber tappers had legitimate claims as forest producers. Rubber producers who occupied and worked on their forested lands for long periods of time were entitled to claim the land as homesteaders under Brazilian law, but most rubber tappers were so isolated that they did not know their legal rights. Aware of the legal ambiguities, ranchers who acquired rubber estates decided that it was in their interest to evict the rubber tappers in order to avoid future claims and lawsuits.

Liberated from their rubber bosses, some rubber tappers continued to work on their forest trails after their estates were sold, bringing their production directly to itinerant river traders (*regatões*). Many veteran rubber soldiers who decided to remain on the rubber estates after the war, having formed new families and integrated into *cabôclo* society, formed communities of small independent rubber tappers after the *seringalistas* departed. As in the past, riverboat peddlers traded their supplies for rubber and overcharged their customers for supplies. Independent rubber tappers began to organize cooperatives to eliminate the middlemen and sell directly to the market. Cooperatives pooled their resources to pay for transportation costs to bring their rubber to a port city where they could obtain fair prices for their rubber production and purchase essential supplies.
Independent rubber tappers enjoyed only a brief period of autonomy until ranchers arrived with bulldozers to clear rainforests, and hired gunslingers to expel those who resisted the advance of “civilization.” The destruction of rainforests by agribusinesses directly threatened the subsistence of rubber tappers and other extractors of forest resources. Isolated and vulnerable on their forests trails, individual rubber tappers could do nothing to protect their rights to their homesteads. By forming communities of rubber workers – including veteran rubber soldiers and their descendants as well as native caboclo rubber tappers – they would discover the power of collective action.

**Collective Resistance by a New Generation of Rubber Tappers**

Rubber tappers in Acre were the first to organize collective resistance to stop the destruction of their forest resources. Many activists were sons and daughters of veteran rubber soldiers, who learned about the Battle for Rubber from their fathers. The most famous offspring of a rubber soldier was Francisco “Chico” Mendes, whose father had migrated to Acre from Ceará to work in the Battle for Rubber. Despite his service as a rubber soldier, Chico Mendes’ father never received a pension.

Chico Mendes became a rubber tapper in 1953, at the age of nine. He did not receive any formal education because schools were not permitted on Acrean rubber estates until 1970. In 1962, a fugitive communist activist who had joined Luis Carlos Prestes’s revolutionary movement in the 1920’s appeared at Chico Mendes’ home and asked his father if he could teach his son to read and write. Chico was eighteen years old when his tutorial education began. Mendes’ mentor, Euclides Fernandes Távora, educated him about Marxist theory and class struggle.
The military coup of 1964 strengthened Mendes’ determination to become a labor activist. He joined the outlawed Communist Party of Brazil, but became disillusioned, declaring “We organized together against the landowners but when there was any repression, they disappeared while I had to face the consequences.” In 1979, he became one of the founding members the new Labor Party (PT), along with Luis Inacio Lula da Silva.

Mendes dedicated himself to convincing rubber tappers and other forest workers to unionize. Taking the advice of his mentor, he first worked to organize a rural workers’ union in Acre under the national umbrella of CONTAG (Confederação dos Trabalhadores na Agricultura), a government-controlled corporatist union established under Brazil’s Labor Code. Távora taught him to place the struggles of the rubber tappers into a Marxian conceptual framework and formulate strategies of resistance. Mendes became an “organic intellectual,” defined by Antonio Gramsci as a person who might have any job, but also directs the ideas and aspirations of the class to which he organically belongs. As a working class “organic intellectual,” Mendes was a rubber tapper, union organizer and political leader, linking the rubber tappers with the Labor Party.

Because of their isolation and fear of reprisals, rubber tappers rarely had the opportunity to organize labor protests. They lived in nuclear families or alone in the forest and occasionally saw their fellow workers at the trading posts. Rubber estate managers often enlisted a few workers as spies to detect whether anyone was selling their production to outsiders - a practice that made rubber tappers suspicious of one another. Collective resistance was not in their culture, and it took the leadership of Chico Mendes,


\[434\] Rodrigues, 67-68.
Wilson Pinheiro and other leaders of the rubber tappers movement, organized in the late 1970’s and 1980’s, to convince them that acting collectively was the only alternative to expulsion by developers.

The efforts of rubber tappers to organize collective resistance received crucial support from Moacir Grechi, the Bishop of Acre, who espoused liberation theology and coordinated the work of the Pastoral Land Commission, an organization formed to protect the rights of the rural poor. With the support of labor union and Catholic Church activists, rubber tappers resorted to a strategy of empate (militant - but non-violent - stand-offs). They entered estates that had been sold to ranchers and confronted the workers hired to raze the rainforests, trying to persuade them to desist. Rubber tappers and their supporters formed human chains to block the bulldozers, hoping that their protest would stop the workers, who were often former forest producers themselves and might identify with their cause. The rubber tappers did not attack the workers hired to clear the forests, but they carried rifles and burned buildings constructed by developers in forests claimed by rubber tapper communities.435

According to Gomercindo Rodrigues, a lawyer from Mato Grosso do Sul who participated in Chico Mendes’ movement, the empates attracted popular support. In 1988, 159 men, women, and children assembled at a rubber estate in Acre where a local judge had sent fifty policemen to protect the workers who were clearing the forest.

The women, led by the schoolteachers of Cachoeira, and the children started to sing the national anthem… Since the national anthem is one of the principal patriotic symbols, the soldiers must stand at attention and, if armed, present arms during the singing… The police lined up, presenting arms, while the rubber tappers’ children and their teachers singing the national anthem in the middle of the Amazon forest was a fantastic sight, even unimaginable… The teachers of Cachoeira did it on their own, without asking anybody. I’m convinced that after this show of public spirit by the children and teachers, the police were well and truly

disarmed, making dialogue possible, so that the officer accepted suspension of the deforestation for a day to see if the union could get the clear-cutting suspended for good.\textsuperscript{436}

In this demonstration, women teachers used the symbol of Brazil’s national anthem to neutralize the police, risking their lives and those of the children who sang with them. Their use of patriotic symbols defused the crisis and reminded the police that the rubber tappers and their families were also good Brazilians. Similarly, veteran rubber soldiers used patriotic discourse in advocating for their pension rights with representatives of the government.

Taking the rubber tappers’ case to court to request an injunction was a step towards implementing the rule of law in a lawless frontier region. The transition period between the end of the military dictatorship in 1985 and the presidential election of 1990 was marked by an upsurge of violence in the Amazon over conflicting land claims, and the rubber tappers of Acre knew they were risking their lives by engaging in collective resistance.\textsuperscript{437}

**Rubber Tappers Mobilize to Protect the Forests**

Mendes faced huge challenges as he guided the union to more radical action in defense of land rights for rubber tappers and other extractors of forest resources in the face of violence from ranchers seeking to clear the forests. With the local authorities supporting the ranchers, even when they murdered union leaders, the union needed new allies. They found one in Mary Allegretti, an anthropologist from the southern state of Paraná, who arrived in Acre in 1978 to study the rubber tappers. Allegretti became a key

\textsuperscript{436} Ibid, 117-118.

\textsuperscript{437} Rodrigues, 3.
advisor to Mendes and a bridge between the rubber tappers and the international 
movement to protect the Amazonian environment.

By the late 1970’s, the environmental destruction of the Brazilian Amazon by 
agricultural and ranching business interests had become an international concern. 
Environmentalist and pro-Indian agendas converged in the advocacy of sustainable uses 
of natural resources, including creation and demarcation of indigenous reserves in which 
forests would be conserved and traditional ways of life protected. Social scientists 
developed models for sustainable development based on the practices of indigenous 
groups, who hunted, fished and gathered the resources of the rivers and rainforests 
without destroying them. Sustainable development models rejected assertions by 
development economists that rubber plantations were more rational and progressive than 
extraction of wild rubber from the rainforests.

During a visit to Washington, D.C. in 1985, Mary Allegretti met with Steve 
Schwartzman, an environmental activist who worked in the Amazon as an anthropologist. 
She talked to Schwartzman about the rubber soldiers, who had produced rubber to help 
the Allies win World War II, yet were subsequently abandoned by the Brazilian 
government. Describing the struggle for survival of the rubber tappers against the 
predatory developers who were destroying the forests, Allegretti persuaded Schwartzman 
that environmentalists and rubber tappers shared a common objective of protecting the 
rainforests. An alliance between them would strengthen the environmental movement 
by offering a sustainable development alternative to razing rainforests and would help the 
besieged rubber tappers by focusing international attention on their cause.

Environmentalists saw extractive modes of production as part of the solution to 
the challenge of saving Amazonian rainforests. To replace the exploitative aviamento

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trading system, the rubber tappers’ union organized cooperatives that eliminated middlemen.

The archaic extractive rubber industry was about to be re-branded as a progressive example of sustainable development. In an article advocating the designation of extractive reserves in the Amazon, Schwartzman emphasized that some 300,000 people in the Brazilian Amazon still depended upon the sustainable harvest of wild rubber. He urged the Brazilian government to shift its development policy from encouraging the expansion of ranching and farming businesses in the Amazon to reserving lands for traditional extractive activities, subsidizing the rubber production industry, and creating large indigenous reserves for tribal Indians.  

Painfully aware that the rubber tappers were fighting an unequal battle with the ranchers, Chico Mendes and Mary Allegretti decided to hold a national conference of rubber tappers to focus national attention on their cause. The first National Rubber Tappers’ Congress took place in Brasilia in October, 1985. Over 120 rubber tappers attended, many of whom had never before left the rainforests. A number of participants were veteran rubber soldiers from Acre, Rondônia and Amazonas, who, after forty years, hoped that the conference would bring them government recognition and pensions for their wartime service. They sang old wartime patriotic ballads and stressed the importance of rubber as a strategic material. An elderly rubber soldier cried when he learned that synthetic rubber and Asian plantation rubber dominated international markets in the post-war world. The conference recognized the claims of the veteran rubber soldiers by calling for the government to pay them an indemnity of twenty minimum

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440 Revkin, 198-203.
salaries, as well as a monthly pension of three minimum salaries, upon reaching the age of sixty.\textsuperscript{441}

Veteran rubber soldiers initially objected to the proposal to align the rubber tappers with the environmental movement, preferring to emphasize their contributions to the rubber economy. After much persuasion, all of the participating rubber tappers agreed to identify themselves as “defenders of the forest” rather than exclusively as rubber tappers.\textsuperscript{442} The conference formed a National Council of Rubber Tappers and produced a manifesto that demanded recognition of the rubber tappers as “genuine defenders of the forest” with an important stake in the course of Amazonian development. The manifesto called for fair prices their rubber production, education and health care benefits for rubber tapper communities, and pensions for surviving rubber soldiers. The conference leadership presented the manifesto to Ulysees Guimarães, President of Brazil’s Congress, who promised to give the document to President Sarney.\textsuperscript{443}

The Brazilian press covered the conference, recalling the government’s abandonment of the brave rubber soldiers of the 1940’s and publicizing the violent conflicts that had erupted between rubber tappers and ranchers in the 1980’s. A congressional delegation from Acre attended and demanded social benefits and pensions for the veteran rubber soldiers.

By organizing collective action to bring their case to Brasilia and aligning with the international environment movement, the plight of the rubber tappers attracted the attention of Congress and senior bureaucrats. After the transition to democratic government in 1985, critics of the former military governments’ development policies in

\textsuperscript{441} Fernanda Franco and Marcelo Teixeira, \textit{A fuga do Soldado da Borracha: A história de um certo José Miguel Correia} (São Carlos: Suprema, 2006), 93-95.
\textsuperscript{442} Revkin, 198-103.
\textsuperscript{443} Ibid.
the Amazon were free to speak out. Even the new Interior Minister declared that the predatory use of the Amazon must end.\footnote{Ibid.}

The most significant outcome was a proposal to create “extractive reserves” in which the state would own the land which rubber tapper communities claimed as their traditional forests, and give extractive producers permanent usufruct rights to those rainforests. Chico Mendes realized that rubber tappers had to offer a viable alternative to clearing the forests for agricultural development; otherwise they would be seen as mere critics of development and “progress.” Forest peoples extracted rubber, brazil-nuts, fruits, oils and medicines from the trees without destroying the rainforests. Advocating an Amazonian variation of agrarian reform, rubber tappers did not claim the land they lived on as their property, but, instead, sought control over its forest resources.\footnote{Rodrigues, 12-15.} They demanded that extractive reserves be demarcated by the state, like indigenous reserves, so that “traditional forest peoples” could continue to extract natural resources without threats of expulsion by developers or destruction of the forests. Within the reserves, decisions would be made collectively by communities of forest producers.\footnote{Ibid, 119-121.}

The extractive reserves concept was inspired by the creation of indigenous reserves in Brazil. Henceforth, rubber tappers and indigenous groups would make common cause as sustainable users of the forests. Mendes reached out to indigenous leaders to forge the “Alliance of the Peoples of the Forest” to advocate for the protection of rainforests through the establishment of extractive and indigenous reserves. The alliance between the National Rubber Tappers’ Council and the Union of Indigenous Nations transformed former fierce competitors for forest lands into allies. Despite their relatively recent migrations into the Amazon during the first rubber boom (1850-1912)
and again during World War II, rubber tappers reinvented themselves as “traditional forest peoples,” identifying with indigenous groups and riverine *caboclo* communities.

**From Rubber Soldiers to Environmental Activists**

The extractive reserves proposal cemented an alliance between the rubber tappers and the international environment movement that proved to be critical to the achievement of the rubber tappers’ objectives. The alliance was useful to both sides, but it was strategic rather than ideological. Mendes was a labor organizer and socialist first and foremost. His interest in protecting the environment emerged from the reality that the rubber tappers needed intact forests for their livelihoods.

The goals of the international environment movement in the Amazon were to conserve its rainforests and biodiversity to the maximum extent possible. International environmental organizations realized that they could not ignore the people of the rainforest and decided to support extractive industries, such as rubber tapping and brazil-nut gathering, as production systems that conserved forest resources. Wild rubber extraction suddenly became an example of sustainable development in international circles, whereas, until the mid-1980’s, it was considered archaic and exploitative. Rubber tappers became “green” defenders of the environment and made common cause with pro-conservation millionaires, scientists, and activists from the United States and Europe who led international environmental organizations.

As a union organizer, Chico Mendes was more interested in social justice, labor rights and agrarian reform than he was in environmental protection, but he modified his position in order to form an alliance that had a wider appeal. Mendes’ strategic alliance with the international environmental movement softened his image as a socialist labor organizer and brought him conservative allies, including members of the United States Congress. His vocal opposition to developmentalist projects that devastated the Amazon
influenced the World Bank and Inter-American Development Bank to withhold financing pending assessments of their environmental impact.

As Chico Mendes’ international allies helped him to garner domestic support for the rubber tappers, his enemies in Acre, where the dynamics of the frontier still prevailed, became more determined to destroy him. Critics of Mendes’ alliance with the environmental movement claim that his identification with forest conservation diluted and distorted his message as leader of the rubber tappers’ union and one of the founders of the Brazilian Labor Party in Acre. 447 Amazonian author Márcio Souza contends that the international environmental movement was merely a disguised version of imperialism, which attempted to preserve the Amazonian environment in a “frozen” state and restore an archaic extractivist mode of production which kept the rubber tappers in dire poverty. 448

In December 1988, Chico Mendes was murdered by local ranchers who mistakenly believed that killing him would also destroy the rubber tappers’ movement. Public outrage over the assassination led to decisive domestic and international pressure on the Brazilian government to establish extractive forest reserves, to be financed principally by the World Bank and the Group of Seven (now G-20) industrialized nations. An alliance between global powers and local rubber tappers influenced the Brazilian state to act. Unfortunately, it took the martyrdom of Chico Mendes to create sufficient momentum and political will to create the first Amazon extractive reserves. Some who were close to Mendes, including his wife, contend that by lionizing Chico Mendes as a defender of the Amazonian environment, the international environmental movement made him a target for assassination. Yet Wilson Pinheiro, Mendes’ friend and leader of the rubber tappers’ union, was murdered in 1980 although he never left the Amazon or aligned with international environmentalists. The dynamics of the Amazon frontier made

448 Ibid, 150-151.
it virtually impossible for the international community to protect Chico Mendes merely by giving him international publicity and awards.

President Sarney issued decrees in early 1990 to establish the first extractive reserves, both in Acre. The Chico Mendes extractive reserve encompasses one million hectares, and the Upper Juruá valley reserve covers 500,000 hectares. Other extractive reserves were created in Amapá and Rondônia. Sarney’s government decreed a complicated legal procedure for the establishment of extractive reserves. The state had authority to expropriate the area, compensating seringalistas and landowners, who had to leave. After a census and a land-use survey, each local community of extractive producers would approve an environmental management plan for the reserve that would be the basis of a contract between with community and the national environment agency. Each reserve was to be administered collectively by extractive communities. Land could not be owned privately and outsiders were not allowed to purchase or obtain land within the reserve.

The creation of extractive reserves by the Brazilian state was a major achievement, but it did not signify the end of the rubber tappers’ struggle. Under the law, private property owners were to be expropriated from demarcated extractives reserves. On the Amazon frontier, however, legal measures adopted by the federal government to protect the rural poor were contested by local elites and developers. State governments tended to align themselves with the interests of local elites over those of rubber tappers. Extractive producers had to remain organized and vigilant against incursions and needed allies to help them fight land tenure issues in the courts. The federal government did not have the enforcement capacity to secure and protect the extractive reserves.

450 Mendes, 97-98. In Fight for the Forest, Mendes’ associate, Tony Gross, comments on the creation of extractive reserves after Mendes’ death.
In agreeing to support and finance the extractive reserves, the World Bank and Group of Seven (G-7) industrialized countries became powerful benefactors of the rubber tappers and other forest product extractors. The objectives of these global actors did not always coincide with the interests of the rubber tappers, however. Financial support from the international donors for the extractive reserves was motivated by pressure from the international environmental community to protect Amazonian rainforests and biodiversity. Support for social justice for the rubber tappers and other forest peoples was a secondary issue to them. International donors measured the success of their programs primarily in terms of strengthening the protection of the Amazonian ecosystem and its biodiversity. Rubber tappers, on the other hand, viewed the creation of extractive reserves as an agrarian reform measure that guaranteed them permanent access to the forested lands from which they earned their subsistence. Extractive producers conserved their forests in order to harvest and sell its products. After the expropriation of rubber estate owners and ranchers from the extractive reserves, rubber tappers measured their successes in terms of the economic and social welfare of their families and communities.

Rubber tappers and other forest workers had to learn how to negotiate with powerful global donors to assert their rights to make decisions for their communities. Advisers from the academic and human rights communities played key roles in assisting them to negotiate their key demands with the interests of international donors. Brazil’s transition to civilian democratic rule opened political space for a plethora of non-governmental organizations devoted to social justice and environmental protection, and a number of these organizations supported the rubber tappers. They rejected the top-down approach to development practiced by the military government and advocated a large role for local stakeholders in decisions on programs that affected their lives.

One of Chico Mendes’s legacies is that extractive forest industries ceased to be viewed as archaic obstacles to progress. On the contrary, they were extolled as compatible with forest conservation, although production costs of wild rubber were
significantly higher than the costs of producing cultivated rubber outside the Amazon. Rubber tappers and other forest gatherers have become a part of the solution to the challenge of protecting the Amazonian environment.

The achievements of the rubber tappers movement marked the end of an era in which rubber tappers were seen merely as victims of exploitation. Chico Mendes and his fellow union leaders devised strategies of collective resistance and made alliances with academics, indigenous groups, Catholic social activists, and international environmental organizations. Threatened with expulsion by ranchers and developers, rubber tappers overcame their traditional isolation and joined a collective movement to resist the destruction of their forests. Through local empates and international appeals, rubber tappers contested the military government’s predatory development policies and gradually became a social force to be reckoned with. Mendes’ assassination energized global environmental organizations to strengthen their alliances with Amazonian rubber tappers and persuade the World Bank and the governments of the G-7 industrialized nations to support the creation of extractive reserves. Faced with intense international pressure and press criticism, Brazil’s new civilian government decided to take the high road by creating extractive reserves, offering to host the United Nations “Earth Summit” in 1992 and agreeing to give priority to environmental protection in its Amazonian development programs.

Margaret Keck argues that linking forest conservation to the protection of extractive forest workers gave the Amazonian rainforest a human face. No longer was environmental protection considered the luxury of the “well-heeled and the well-fed;” instead, a consensus emerged that environment projects in the Amazon must include the active participation of the people who depended on the rainforests for their subsistence. Keck contends that the association of the rubber tappers’ efforts to protect their rainforest

environment with the struggle for social justice for “traditional peoples” reframed the issues and injected vitality into the concept of “sustainable development.”

Through the creation of extractive and indigenous reserves, the Brazilian state acknowledged that the Amazon frontier was not a vast empty space and that development programs should take into account the needs of the “traditional peoples” who populated the region. In contrast, during his historic visit the Amazon in 1940, President Vargas had called for “a crusade to conquer, little by little, the great enemy of progress in the Amazon - its immense and unpopulated vastness.”

As Brazil’s democracy evolved under the Constitution of 1988, consultations with local stakeholders became a factor in the decision-making process on development programs in the Amazon. This approach was a radical departure from the military government’s top-down programs to occupy, colonize and develop the Amazon before another country could take advantage of its “empty” spaces. The socio-economic challenges confronting the rubber tappers were far from resolved, but for the first time, the Brazilian government began to solicit their input and recommendations for sustainable development solutions.

Through their strategic alliance with the international environment movement, the public image of rubber tappers evolved from the patriotic rubber soldiers of World War II to the “defenders of the forests” of the globalist era. Leaders of the rubber tappers movement participated in decision-making about international development financing for the Amazon. Environmental organizations successfully lobbied their governments to influence the World Bank and the Inter-American Development Bank to include environmental criteria in their lending to Brazil and other countries. In order to obtain new financing from these multilateral development banks, the Brazilian government had

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452 Keck, “Social Equity and Environmental Politics in Brazil,” 418.
453 Getúlio Vargas “Discurso do Rio Amazonas,” op. cit.
to accede to key forest conservation demands by the rubber tappers and their international environmentalist allies.

International support empowered the rubber tappers to negotiate with the Brazilian state on a more level playing field. Global powers aligned with the local rubber tappers’ movement, changing the dynamics of negotiating with the state. Local elites were unwilling to give up the Amazonian lands they had acquired without a fight, however, and violent conflicts over land in the Amazon continued to plague rubber tappers and indigenous societies.
CHAPTER VI

CONCLUSION

Obstacles to Increasing Wartime Rubber Production

Brazil’s wartime rubber production increases were too modest to make a significant contribution to the Allied war effort. The United States quickly compensated for disappointing rubber production results in the Amazon by developing alternative sources of synthetic and natural rubber that met its wartime requirements. By 1945, the U.S. government, confident that it would have sufficient supplies from Ceylon, Liberia and Latin America to cover its diminishing requirements for natural rubber, no longer worried about wartime rubber shortages,

Government-led efforts to increase rubber production in the Amazon failed to wartime production targets, due to both environmental and socio-economic factors. Instead of stimulating the development of Amazonian rubber plantations, the wartime effort relied on archaic methods of wild rubber extraction from trees dispersed in the rainforests. Had the Ford plantations succeeded in overcoming the challenge of South American Leaf Blight epidemics, production from their millions of rubber trees might have compensated for a significant portion of the loss of Southeast Asian plantation rubber to Japan. Buying rubber from a major U.S. corporation in the Amazon would have been easier for the Roosevelt Administration than establishing a complex partnership with the authoritarian Vargas government to recruit migrant labor, finance rubber estates, and improve public health and transportation infrastructure.

The dispersal of *Hevea brasiliensis* trees among other biodiversity in rainforests
throughout the Amazon made rubber extraction was more costly than rubber cultivation on Southeast Asian plantations. Rubber shipped from the shallower tributaries could be shipped downriver only during the high-water season. Chronic scarcities of rural labor in the Amazon necessitated the recruitment and transportation of labor from outside the region. The Brazilian government recruited only around 30,000 rubber soldiers, rather than the 50,000 or more expected by the United States government.

Productivity of the rubber soldiers suffered due to malnutrition, malaria and other diseases. Outside of certain areas of Pará, there was little commercial agriculture in the Amazon, where upland soils were nutrient-poor. The western Amazon as well as most of the hinterlands were overly-dependent on food imports. On the frontier, rubber soldiers had little choice but to exchange their future production for overpriced and frequently spoiled imported food. Poor food, disease, and spiraling debt demoralized the rubber soldiers, reducing their ability and incentive to increase their production. After they learned how to provide for their own subsistence in the Amazonian environment, rubber soldiers gradually increased their productivity, but it was too late to make a difference to the war.

To prevent malaria, the United States government provided millions of Atabrine tablets gratis to the rubber estates and rushed basic food supplies to the Amazon. Forced to rely on local riverboats to deliver the food and medicine to the estates, the two governments found that they could not circumvent the aviador firms, which controlled transportation networks in the hinterlands through their patron-client relations with fleets of small riverboat traders. The tentacles of the aviador trading system penetrated into vast regions that were beyond the reach of government agencies. The combined efforts
of the Brazilian and United States governments to break the stranglehold of the aviador trading system on supplying the rubber estates failed, and by 1944, the Roosevelt Administration had ended its programs to deliver food and basic supplies to the Amazon.

**State Participation in the Amazonian Economy**

Despite the failure of the Battle for Rubber to meet the RDC’s annual production targets of 50,000 tons of rubber, the rubber alliance had far-reaching consequences for Amazonian development. The Battle for Rubber was a catalyst for future state-led programs in the Amazon that transformed the region from an isolated periphery with a sustainable extractive economy, to a disastrous experiment in unsustainable development.

Transformations in the region’s economy, society and environment emanated from the nexus of the wartime program to increase rubber production with the Brazilian state’s efforts to integrate the vast Amazonian frontier into the Brazilian nation. Through the rubber program, the Estado Novo expanded its presence and authority in the Amazonian hinterlands. The government increased its participation in the Amazonian rubber economy by managing the recruitment, transportation and placement of migrant rubber labor, advancing its goal of colonizing the Amazon by transferring around 30,000 marginal rural workers and 8,000 family members to the Amazon, where most of the survivors settled after the war.\(^{454}\)

With the financial support of the United States, Brazil established the Amazon’s first development bank, which had a mandate to finance the revival of wild rubber production and impose a monopoly over the purchase of crude rubber. Local elites

\(^{454}\) *Relatório da CAETÁ*, December, 1945.
profited from the revival of extractive rubber production after three decades of decline, but they resented government price controls on rubber. Rubber prices were relatively easy to enforce because the Rubber Credit Bank was the only authorized buyer in Brazil and all rubber shipments were sent FOB Belém before they were exported to Southern Brazil or the United States. Belém was a choke point, where the customs agency inspected all cargoes and collected tariffs and the government monitored vessels entering and leaving the Amazon. Located at the mouth of the Amazon, the great port city of Belém was the gateway between the Atlantic Ocean and the Amazon, where the government was able to assert tighter controls over the rubber trade than in any other Amazonian port.

**State Mobilization of Rubber Labor**

In contrast to the laissez-faire rubber boom era of nineteenth century, the Brazilian state, financed by the United States, orchestrated the rubber campaign during World War II. Brazilian recruiting agencies used military discourse in their campaign to recruit rubber soldiers, and the government-controlled media supported the enlistment campaign by portraying the rubber soldiers as patriotic volunteers. The reality was that some enlisted to escape from grinding poverty, droughts and *coronelismo* in the backlands of the Northeast; others sought adventure and independence from patriarchal domination; and many were simply given the choice of enlisting either as rubber soldiers or conscription into the military.\(^{455}\)

Government agencies portrayed the Amazon as a lush land of plenty where rubber tappers could easily sustain themselves and send part of their earnings back home to

\(^{455}\) Morales, 344-345.
support their families. Rubber soldiers were not necessarily deceived by government propaganda. During the first rubber boom, migration between the Northeast and the Amazon became a common pattern, with rural workers embarking for the Amazon to escape poverty aggravated by periodic droughts, and returning after economic conditions improved at home or worsened in the Amazon. Stories told by returning migrant workers inspired young men with the dream of claiming their own homesteads in the Amazon, rather than toiling for absentee landlords in the Northeast.

The Estado Novo inserted the state into the patron-client relationships that traditionally governed rural labor by supplying the rubber soldiers with labor contracts that specified their rights and duties, as well as those of the seringalistas. Although virtually unenforceable in the rubber estates, the labor contracts asserted the government’s right to regulate labor relations between landholders and their workers in the Amazon - a frontier region in which rubber barons had enjoyed impunity during the first rubber boom. Government-issued labor contracts signaled to both the Amazonian rubber elite and the rubber soldiers that the state was a key player in the Battle for Rubber. The wartime alliance with the pro-labor Roosevelt Administration was another incentive for the Vargas government to guarantee labor rights to the rubber soldiers – at least on paper.

Intervention by the Brazilian state in the procurement of labor for the Battle for Rubber had the salutary effect of reducing incidents of torture and beatings of rubber tappers during the Battle for Rubber and into the 1950’s. Departing from their traditional practices of acting with impunity to force rubber soldiers to remain on the estates until they settled their accounts, seringalistas from the state of Amazonas appealed to Vargas’s

456 Ibid, 342-344.
appointed governor to use his authority to stop rubber soldiers from fleeing in violation of their labor contracts. I have argued that this modification in the behavior of the rubber elite stems from the direct involvement of the Brazilian state in the Battle for Rubber. In contrast to labor recruitment during the first rubber boom, the rubber elite did not risk their own money in bringing rubber tappers to the Amazon. *Seringalistas* were sometimes relieved that untrained rubber soldiers who could not adapt to conditions in the rainforests “escaped,” sparing them the expense of maintaining unsuitable workers.

Furthermore, *seringalistas* generally refrained from antagonizing their financiers, the Rubber Credit Bank and the RDC, by physically abusing their workers. As Vargas’s government extended its reach further into the Amazon and the controlled media disseminated information on the Estado Novo’s corporatist labor laws, the rubber elite began to accept that the era of impunity was waning on the rubber frontier. Sadly, this limited progress towards extending the rule of law to the Amazonian hinterlands was reversed during the period of military rule (1964-1985).

**Rubber Extraction versus Cultivation**

To the disappointment of modernizers, including President Vargas, the Battle for Rubber revived an archaic extractive industry instead of stimulating rubber cultivation. The failure of the Ford Motor Company - arguably the most famous company of the early twentieth century - to produce commercial quantities of plantation rubber in the Amazon, led the United States and Brazil to rely on traditional wild rubber extraction from the rainforests. Visiting the Ford plantations in 1940, Vargas was impressed by the
company’s facilities for its workers, including schools, hospitals, clean water, electricity, and housing because no other rural workers in the Amazon enjoyed such benefits.\textsuperscript{457} It is not surprising that Vargas considered the management expertise, technology and infrastructure that the Ford Company brought to their plantations in Pará to be a model for Brazilian investors. To replace rainforests with rubber plantations, pajés (shamans) with modern hospitals, and traditional beliefs with western education seemed like serious progress to a modernizing president. But there was trouble in Ford’s workers’ paradise.

Dean’s study of Brazil’s efforts to produce plantation rubber correctly concludes that the South American Leaf Blight was the decisive factor in undermining the productivity of commercial plantations in the Amazon. Although criticized by modernizers as archaic and inefficient, extraction of rubber from *Hevea brasiliensis* trees found in rainforests proved to be the mode of production that was best adapted to the Amazonian eco-system.

Grandin highlights another important factor that reduced productivity: the reluctance of rural laborers to accept time-discipline regimentation and North American values and customs, such as the prohibition of alcohol on the plantations. In Pará, rubber tappers were accustomed to a great deal of autonomy, especially during the rainier “winter” season when rubber was not tapped, during which they could devote six months to providing for their own subsistence. During the tapping season, they sold their rubber to local *aviadores* who were often godparents to their children and with whom they had personal, but unequal, patron-client relationships.

Even with unprecedented benefits, it was a sacrifice to give up six months of autonomy to accept the regimentation of working all year on the plantations under a time-

\textsuperscript{457} Dean, 83.
discipline management system. Despite offering the highest wages and benefits for rural workers in the Amazon, Ford experienced scarcities of labor. Rural laborers from the Northeast proved to be better suited for the Ford plantations because they needed the security of a cheap, reliable food supply and access to medical care in order to survive in an unfamiliar environment.

The key variable was food: rubber tappers who could provide for their family’s subsistence by hunting and fishing while their wives raised crops were much less likely to trade their autonomy for the security of working in rubber plantations. Rubber tappers working in areas where ample cheap food supplies were available also preferred their autonomy. Those who depended on the rubber trading posts for expensive imported food were more willing to accept the regimentation and cultural insensitivities of the Ford plantations. Nevertheless, even they drew the line and rioted when they were given spinach and other North American foods instead of their traditional diet.

**Amazonian Rubber Elites Maneuver to Protect their Profits**

The Rubber Credit Bank’s monopoly on the purchase of crude rubber at controlled prices limited the profits that *aviador* firms could make from rubber trading. Some *aviador* firms tried to increase their rubber profits by hoarding until the United States and Brazil negotiated higher prices, which occurred in late 1943. Traders and *seringalistas* working near the Bolivian border reportedly sold rubber to *contrabandistas* in Bolivia, who, in turn, smuggled it into Argentina, which paid much higher prices.
Both the populist-authoritarian Vargas government and the New Dealers of the Roosevelt Administration considered *aviadores* as exploitative middlemen who made profits through a trading system that impoverished rubber tappers and thereby undermined the wartime mission to increase their productivity. To circumvent the government-issued labor contracts, which reserved sixty percent of the value of their production for the rubber soldiers, *seringalistas* simply raised their prices for essential foods and supplies relative to the value of the rubber tappers’ production, protecting their own profit margins while pressuring rubber tappers to increase their production to cover their growing debts.

*Aviadores* successfully thwarted the efforts of the RDC to import food and supplies into the Amazon and sell them to rubber estates at cost. Ships bearing food and supplies arrived in Amazonian ports from the United States, but most rubber estates were located on tributaries that deep-draught ships could not access. *Aviad*or firms in Belém, Manaus and smaller port cities used their patron-client relationships with hundreds of small riverboat traders to control trade in the hinterlands. Riverboat traders established exclusive patron-client relationships with rubber estates on remote tributaries. The RDC had no choice but to contract with *aviadores* to deliver the supplies. Although the RDC tried to help the rubber tappers by decreeing maximum price and profit levels, they were generally ignored by riverboat traders and *seringalistas*. Rubber estate managers simply passed the costs on to their rubber tappers and demanded more rubber production in return. Neither the RDC nor the Brazilian state had the resources to monitor the delivery of the RDC supplies to the estates.
By 1944, after the danger to Brazilian shipping from German submarine attacks had subsided, the RDC decided to withdraw from supplying the rubber estates, leaving trade in food and supplies in the hands of the *aviadores*. The Amazonian rubber trading elite defeated the combined efforts of Brazil’s Estado Novo and the Roosevelt Administration to break the *aviador* trading system and improve the terms of exchange for the rubber tappers.

**State-building and the Special Public Health Service**

Cooperation between Nelson Rockefeller’s CIAA and SESP extended national public health services to the Amazon for the first time. By extending the presence of the state into the Amazonian hinterlands, the Special Public Health Service, created to support the Battle for Rubber, also advanced the government’s policies of integrating the region into the nation. Establishing 34 health posts on Amazonian tributaries and deploying floating barges that served as public health clinics, SESP brought health services to riverine populations of the small cities and towns that dotted the main Amazonian waterways. SESP was the first federal agency to bring social services to rural *caboclo* populations. The government considered SESP health posts to be small frontier outposts that the state could use to project its authority through soft power.

Despite the distribution of millions of Atabrine tablets by SESP and the RDC, malaria continued to be the scourge of the rubber tappers. The isolation of most rubber estates from the main Amazonian waterways made it virtually impossible for SESP to deliver Atabrine and other medicine directly to the rubber tappers. SESP used the
aviador network of riverboat traders to deliver Atabrine to the estates, where rubber tappers were often charged for supposedly “free” preventative medicine that was intended to make them more productive. The aviador system encouraged a short-term outlook on profit because every trader in the chain of transactions earned a profit, except those at the very bottom.

SESP’s good reputation among Amazonians improved the poor image of the federal government, which had been criticized for collecting taxes without investing resources to develop the region. SESP’s programs to establish hospitals and research centers in Belém and Manaus and train Brazilian doctors, nurses, and sanitation engineers improved public health in the cities, towns and small communities along the main Amazonian waterways.

Public health cooperation between Brazil and the United States flourished during and after World War II. The opportunity for North American doctors and research scientists to work on tropical disease in the Amazon and the Northeast was valuable for the war effort because they could apply their experience to tropical zones in the South Pacific and Africa, where the lives of North American soldiers, as non-immune newcomers, were threatened by malaria and other tropical diseases. In the post-war era, a number of Brazilian doctors trained at public health institutions in the United States rose to high positions in Brazil’s health bureaucracy and encouraged the use of North American medical procedures, practices and pharmaceuticals.

Indigenous Groups Confront a Second Rubber Cycle
The limited protections accorded by the state to the rubber soldiers through their labor contracts did not extend to indigenous groups on the rubber frontier. After a welcome thirty-year period of “decompression” after the collapse of the rubber boom in 1912, indigenous groups were again threatened by a new wave of immigrants who arrived on the Amazon frontier in the 1940s. The revival of wild rubber production and the migration of thousands of rubber soldiers to Amazonian frontier during World War II intensified pressure on indigenous lands, especially in the frontier territories of Acre and Guaporé (now Rondônia).

Indigenous groups adopted strategies to resist, contest, or accommodate the interests of the *seringalistas*, who negotiated with local Indians to obtain labor and deter hostile attacks. When indigenous groups contested the encroaching rubber frontier by attacking isolated rubber estates, *seringalistas* responded with violent reprisals, often enlisting “friendly” Indians to attack rival “hostile” Indian groups in return for firearms.

Due to the isolation of frontier rubber estates and chronic labor scarcities, Indian chiefs had the bargaining power to negotiate for considerable autonomy and mobility for indigenous laborers. Indigenous groups worked as seasonal rubber laborers in order to obtain metal goods, but departed from the rubber estates at will to participate in communal activities, such as hunting expeditions. Given their extensive knowledge of the rainforests and their ability to provide for their own subsistence, it was impossible to stop indigenous groups from leaving the rubber estates except by physical coercion.

Isolated frontier indigenous groups living without contact with “civilized” society or the protection of the Indian Service or Catholic missionaries were vulnerable to brutal attacks and enslavement by rubber bosses and their armed henchmen. Confronted
by labor shortages, *seringalistas* on tributaries of the Madeira River reverted to the brutal practices of the nineteenth-century rubber barons and attacked uncontacted indigenous communities, forcing the men to tap rubber, and taking their women as concubines. Placed in historical perspective, however, the Battle for Rubber was a relatively minor episode for indigenous peoples, compared to the heavy toll exacted by the first rubber boom and the devastation that the military government unleashed on indigenous lands through its developmentalist programs of the 1970’s.

The expansion of the rubber frontier during the Battle for Rubber heightened the interest of the Brazilian state in occupying and colonizing the region. By 1945, the Indian Protection Service had established 106 posts in Brazil, extending government authority deep into indigenous lands and establishing the federal government as a mediator between the land claims of the Indians and the colonists. SPI’s mandate was to protect indigenous lands from illegal encroachments and negotiate fair terms for their labor, but, as Seth Garfield argues, the federal government’s overarching goal was to extend its authority over indigenous lands and prepare the Amazon frontier for colonization and agricultural development.458

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**The United States in the Amazon**

Brazil’s wartime alliance with the United States brought an unprecedented level of direct involvement by a foreign government in the Amazon, through the work of SESP and the RDC, as well as the activities of the United States military base in Belém. Despite the Brazilian military’s long-standing sensibilities about the vulnerability of the

458 Garfield, 23-32.
Amazon to potential foreign interventions, Brazil permitted United States rubber technicians, health workers and military personnel to work in the region.

The United States helped Brazil to develop the Amazon by financing the construction of new transportation infrastructure in the Amazon. North Americans directed the construction of airports in Belém and Manaus, airstrips and radar stations throughout the Amazon, and roads between cities and airports. The Brazilian military supported these infrastructure programs because they corresponded to its own national security objectives Amazon. The Roosevelt Administration financed a transportation infrastructure program that the Brazilian government might otherwise have had to pay for to advance its goals of integrating the Amazon into the nation.

Nevertheless, these projects were executed by a foreign government, a wartime ally to be sure, but a global power with the capacity to stay beyond its welcome after the war was won. The United States government penetrated the Amazon with its airplanes and ships, as well as technical experts who sent sensitive information on the region’s natural resources and sparsely populated frontiers back to Washington. The wartime activities of the United States in the Amazon re-awakened the anxieties of nationalist elements about great power designs upon the region’s natural resources.459

Having observed the activism of the United States in the Amazon during the Battle for Rubber, it is not surprising that Brazil’s military government decided to secure its control over the Amazonian frontier during the late 1960’s and 1970’s by building highways and other infrastructure to support its long-standing objectives of occupying, colonizing and developing the Amazon. If North Americans could build bases, airports and roads in the Amazon within just a few years while fighting a world war at the same

459 See Reis, *A Amazônia e a Cobiça Internacional.*
time, the Brazilian military was confident in its ability to execute a much more ambitious program to secure control over the region during a time of peace.

Brazilian officials worried that North American corporations would take advantage of wartime economic cooperation to gain commercial advantages in the post-war period. They feared that United States businesses would revert to the old hegemonic trading relationship of exchanging their manufactured products for raw materials from Brazil without contributing to Brazil’s industrialization. Having permitted official North American technical missions to survey the Amazon, Brazilian officials realized that some of the information about natural resources might be shared with North American corporations.

North American companies dominated foreign investment and trade with Brazil during and after World War II. Nelson Rockefeller was among the most prominent North American businessmen in Latin America and his interests in petroleum in Latin America were well-known. Rockefeller’s involvement in the rubber alliance as Roosevelt’s Coordinator for Inter-American Affairs raised questions about his post-war intentions. Would he exploit his high-level connections in Brazil to expand his business empire and that of his associates on Wall Street?

During the war, the State Department vetoed Rockefeller’s ambitious Amazonian development schemes. In the post-war era, however, the United States government increased its support for North American business interests in Brazil, and it was up to the Brazilian government to decide whether or not to allow international companies to develop and exploit the country’s natural resources. Vargas’s determination to establish a national petroleum company after his return to power as an elected president in the

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460 F. McCann, *The Brazilian-American Alliance*, 401-402
early 1950’s was based on his interest in preventing Standard Oil and other international oil companies from acquiring concessions to exploit Brazil’s sub-soil resources.

Bailing Out the Rubber Elite

To the disappointment of many Amazonians and the relief of Brazilian nationalists, the United States government did not prolong its participation in the Amazon after the war was over. The RDC began withdrawing from the Amazon in 1945, turning over its physical assets to the Brazilian government except for airplanes and ships, which went back to the United States. Ironically, after denouncing RDC competition with the aviador trading system, as well as the controlled prices of crude rubber, the rubber elite lamented the departure of the North Americans, fearing an economic collapse and depression after the wartime mini-boom, as had occurred after the previous boom ended.

To safeguard future profits from the rubber trade, the Amazonian elite successfully lobbied the Brazilian government for guaranteed prices for their rubber production, as well as tariff protection from cheaper rubber imports from Asia and Africa. After vehemently opposing government-imposed price controls during the war, the Amazonian rubber elite clamored for a valorization scheme during the post-war era, when cheap rubber from Southeast Asia once again threatened the viability of the Amazonian rubber economy.

The commercial associations of Amazonas and Pará were instrumental in negotiating the post-war valorization plan. The rubber elite persuaded the Interventors of Amazonas and Pará – both direct Vargas appointees – to join them in lobbying the
federal government for protection for the wild rubber industry. The military also supported the plan, concerned that the post-war collapse of international rubber prices would stimulate an exodus of rubber workers from the Amazonian frontier and leave international borders depopulated and vulnerable to foreign intervention.

In contrast to the collapse of the first rubber boom when the Old Republic declined to bail out the Amazonian rubber elite, state intervention in the Battle for Rubber led to a commitment by the government to support rubber prices after the Washington Accords expired. Government protection averted a second collapse of the rubber economy and prolonged the survival of the Amazonian rubber trading elite.

The View from Below

After the Battle for Rubber ended, the rubber soldiers were abandoned in the rainforests by the government that recruited them. Thousands of rubber soldiers and their families died in the rainforests during the Battle for Rubber, due to malnutrition, malaria and other diseases, hostilities with Indians, and attacks by wild animals. There are no reliable statistics of the number of rubber soldiers who died because no efforts were made to locate them and determine their fates after the war.

Although their recruiters had promised their passages back to their original homes after the war was over, the Brazilian government made no effort to find the rubber soldiers in the estates and transport them home. The lives of the rubber soldiers were considered expendable by the Vargas government if their loss advanced the state’s goals of cementing a wartime alliance with the United States. Delivering results “para
norteamericano ver” meant that the government quickly recruited and transported rubber soldiers to the rubber estates, where they were left to fend for themselves. The Brazilian government had little interest in bringing thousands of rubber workers back to their original homes in the Northeast, where inequitable socio-economic conditions produced a chronic surplus of unemployed rural laborers. They were far more useful to the state as colonizers of the Amazonian frontier than as surplus laborers in other regions of Brazil.

Although roughly half of the recruited rubber soldiers disappeared in the rainforests, many of them survived and integrated into caboclo communities in the hinterlands after the war ended. Many rubber soldiers who “disappeared” in the rainforests started new lives with Amazonian women and elected not to return to their original homes. The most successful strategy adopted by migrant rubber tappers was to marry Amazonian women, whose knowledge of local subsistence agriculture and indigenous medicine was crucial to their survival in a challenging environment.

The story of Jaime de Sousa’s father, Luiz, who migrated from the Northeast to the Amazon frontier as a young single man and persuaded Raimonda’s traditional indigenous community to let him marry her, is an example of the resourcefulness of migrant rubber soldiers. Raimonda’s extended family protected Luiz and his rubber estate from Indian attacks and Luiz provided his Indian relatives with labor-saving metal tools.

Rubber soldiers who formed families with Amazonian women merged into caboclo society with through their extended families. As seringalistas began to abandon their estates after the wartime mini-boom ended, rubber tappers continued to live and work in the rainforests, forming cooperatives that sold their rubber directly to itinerant
river traders. These semi-autonomous groups of rubber tappers developed bonds of community that had been absent in the rubber estates, where workers lived and toiled alone in their patches of rainforests, rarely socializing with others.

As they aged, veteran rubber soldiers and their families, aided by social activists from the Catholic Church, organized associations to advocate for the pensions that their government had promised them. Rubber soldiers expressed pride that their work contributed to Allied victory in World War II, claiming pension rights as patriotic war veterans rather than as indigent elderly workers. Organizing to advocate for their pensions was a valuable lesson in collective action for the veteran rubber soldiers, who had lived in for many years in isolation in the rainforests.

Extraction of rubber and other products of the rainforests remained the principal productive use of the vast Amazon hinterland until the 1970’s, when Brazil’s military government launched a major program to encourage investments in commercial agriculture in the rainforests. The military were not the first to mistake the green lushness of the rainforests for lands that would sustain productive commercial agriculture – Alfred Wallace had a similar vision of the region’s potential - but they were they were the first to provide major fiscal incentives to land developers to cut down the forests and replace them with farms and ranches. Traditional rights of Amazonian caboclos and indigenous groups to extract forest products meant nothing to the developers or their supporters within the government.

To assert their claims to their swathes of forest, rubber tappers confronted a rising new elite – land developers who entered the forests with workers, chainsaws and bulldozers to raze the forests on which the rubber workers depended for their livelihoods.

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461 See Wallace, 260-261.
The leader of this struggle was Francisco “Chico” Mendes, the son of a veteran rubber soldier who had settled in Acre. Although Mendes was known internationally as an environmentalist, he was first and foremost a socialist labor activist who organized a rubber tappers’ union to save their rubber trees from destruction by developers. Through local collective action, later fortified by a strategic alliance with the international environment movement, the rubber tappers’ union advocated for recognition of their swathes of rainforests as “extractive reserves,” protected by the state.

Violent land conflicts erupted in the Amazon as developers purchased land without regard for the rights of the people who already lived there - including forest gatherers, subsistence farmers, and indigenous communities. Conflicts over land between rubber tappers and ranchers escalated, with ranchers resorting to violence against leaders of the rubber tappers. The murder of Chico Mendes by ranchers in 1988 provoked international and domestic outrage, stimulating the elected Brazilian government to agree to establish extractive reserves for forest producers.

Veteran rubber soldiers waited in vain to obtain national recognition of their patriotic wartime service. Chico Mendes was instrumental in persuading skeptical veteran rubber soldiers, as well as younger rubber tappers, to adopt a new identity as “defenders of the forests” and allies of the international environment movement. The evolution of the identities of rubber tappers from rubber soldiers to “defenders of the rainforests” attracted the support of the powerful western industrialized nations, which were under domestic pressure to protect the biodiversity of the Amazon.

The “greening” of the rubber tappers’ movement brought them international recognition as part of the solution to the challenge of protecting the Amazonian
environment. The creation of government-protected extractive reserves kept large tracts of forested land in the hands of rubber tappers and other gatherers, who harvested the trees without destroying them. After decades of being denigrated as an archaic mode of production, wild rubber extraction from the rainforests was endorsed by environmentalists as a sustainable industry that protected the biodiversity of the Amazon.

**Environmental Impact of the Alliance for Rubber**

The wartime effort to increase wild rubber production had a minimal short-term environmental impact because the extraction of latex from *Hevea brasiliense* trees does not kill the trees, which, if tapped carefully, remain productive for around fifty years. Although the human toll of the Battle for Rubber was appallingly high, Amazonian rainforests suffered little damage during the 1940’s and 1950’s.

Transportation networks developed to support the Battle for Rubber had a long-term environmental impact because they facilitated the execution of plans by post-war governments to build highways, roads, and power dams. Networks connecting the Amazon by air to the rest of Brazil supported the efforts of future Brazilian governments to build the infrastructure that opened the frontier region to colonization and agricultural development.

Construction of the Belém-Brasilia highway, which began in the late 1950’s, paved the way for the colonization of southern Pará, a region still plagued by intense land conflicts. The military high command that took control of the government in 1964 justified aggressive programs to occupy, colonize, and develop the Amazonian frontier.
on the grounds of national security. A combination of greed and technology unleashed a period of predatory development during the 1970’s and 1980’s that devastated the environment. Technological improvements in machinery to clear forests, build highways and roads, and construct hydro-power dams led to more destruction of the Amazonian environment in four decades than over the course of the previous 10,000 years of human occupation.

Large-scale farming and ranching proved to be incompatible with the ecology of the Amazon, where nutrients are concentrated in the trunks, roots, and canopies of the trees, rather than in its fragile soils. Farmers and ranchers abandoned their depleted lands every few years and cleared virgin rainforests to make new pastures and fields, leaving a degraded environment in their wake.

For the first time in history, man’s economic activities threatened the survival of the Amazonian eco-system. Until the twentieth century, man adapted to the Amazonian environment, rather than trying to conquer it. Making only minor modifications to their environment over thousands of years, indigenous societies adapted to the ecology by extracting renewable natural resources from the forests and rivers. European conquerors and colonists devastated indigenous populations through warfare, disease and enslavement, but their economic activities left only a small environmental footprint in the Amazon.

During the first rubber boom, rubber elites imported over 300,000 migrant laborers over a period of forty years. The average annual migration rate during the Battle for Rubber was proportional: an influx of around 30,000 rubber soldiers over a period of
four years. Although both migrations increased pressures on indigenous lands, their rubber extraction activities had only a minor environmental impact.

Extraction of rubber from the rainforests proved to be a far more sustainable mode of production in the Amazon than commercial farming and ranching. Unsustainable development projects led to the deforestation of almost 20 percent of the Brazilian Amazon by 2008, with predictions of a 40 percent loss by 2050 if the present rate of deforestation continues.  

Scientists predict that a loss of 40 percent of the Amazonian forests would be a “tipping point” which would cause irreversible damage to the hydrological cycle, greatly reducing rainfall in the Amazon and southern Brazil.

**Global Power, State Intervention, and Amazonian Society**

I have argued that the Battle for Rubber was a catalyst for state-led economic and social development in the Amazon. The establishment of the Rubber Credit Bank by the Brazilian government, in partnership with the United States, inserted the state into the Amazonian economy and superseded the large *aviador* firms of Belém and Manaus as the most important financier of the region’s development. The activist wartime role of the United States government in improving the transportation infrastructure, public health, sanitation, and food supplies in the Amazon laid some of the groundwork for Brazil’s ambitious infrastructure projects of the 1960’s and 1970’s.

During the Battle for Rubber, the state assumed the role of the foreign exporting houses of the nineteenth-century rubber boom, monopolizing the purchase and export of

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462 Grandin, 362.
rubber at controlled prices negotiated with the United States government. Amazonian merchants successfully challenged the efforts of both governments to break the stranglehold of the *aviador* trading system and regained their dominant role in supplying the rubber estates. By undermining government efforts to improve nutrition and health on the estates, the rubber elite contributed to the failure of the Battle for Rubber to make a significant contribution to the Allied war effort.

The principal beneficiaries of the Battle for Rubber were the Brazilian state, which enhanced its influence in the Amazon; and the Amazonian rubber elite, who not only profited from the wartime surge in rubber demand, but also persuaded the Brazilian government to protect their flagging industry in the post-war era. The United States government did not obtain the surge of wartime rubber supplies from Brazil that it had hoped for, but its technical agencies gained access to valuable information about Amazonian natural resources and established long-lasting partnerships with Brazil in public health, biological sciences, and transportation.

Indigenous groups survived the onslaught of an expanding rubber frontier because the Battle for Rubber lasted only five years. The rubber alliance stimulated the Brazilian state to expand its presence in the Amazonian frontier and was a catalyst for post-war state-led campaigns to occupy and colonize their traditional lands.

Despite high casualties and great hardships, the cultural identities of rubber tappers evolved from the victimized *flagelados* of the first rubber boom to the brave rubber soldiers who produced a vital strategic material to help win a world war. In the post-war era, rubber tappers became militant labor union activists, who confronted land developers to defend their access to forest resources. Through their alliance with the
global environment movement, rubber tappers gained a voice in the national debate on sustainable development and conservation in the Amazon.
Amazonian Habitat of *Hevea brasiliensis*

Indigenous Groups of the Amazon-Rio Negro

Source: John Hemming, *Amazon Frontier*, xv
BIBLIOGRAPHY

Archives:

Arquivo Histórico do Itamaraty, Rio de Janeiro

Arquivo J. G. Araujo, Museu Amazônico, Universidade Federal do Amazonas, Manaus

Arquivo Nacional (AN), Rio de Janeiro

Associação Comercial do Amazonas, Manaus

Banco da Amazônia, S.A., Belém.

Centro de Piques e Documentação de História Contemporânea do Brasil, Fundação Getúlio Vargas (CP-DOC/FGV), Rio de Janeiro

Fundação Oswaldo Cruz (Fiocruz), Rio de Janeiro

Instituto de Geografia e História do Amazonas, Manaus

National Archives and Records Administration (NARA), College Park, Maryland

Rockefeller Archive Center (RAC), Sleepy Hollow, New York

Libraries Consulted:

Biblioteca da Escola Superior da Guerra, Rio de Janeiro

Biblioteca do Antropologia Social, Museu Nacional, Universidade Federal de Rio de Janeiro

Biblioteca Nacional, Rio de Janeiro

Biblioteca do Museu Goeldi, Belém

Biblioteca Pública, Belém

Biblioteca Pública, Manaus

Biblioteca Arthur Cezar Ferreira Reis, Manaus
Published Sources:


*Rebellion in the Backlands*. Translated by Samuel Putnam. Chicago: University


