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The Case of Brazil

Coloniality and Pandemic Misgovernance as Necropolitical Tools in the Amazon

Vanessa Boanada Fuchs

Abstract

This article analyzes the impacts of the COVID-19 pandemic on the lives of the Amazonian populations of Brazil. Following the social quality approach, it inquires into how COVID-19 intertwined with and reinforced underlying trends and inequalities in different life domains expressed in long-term societal complexities, urban–rural dynamics, and environmental transformations. The article finds that the pandemic, following coloniality of power patterns, has been instrumentalized as a necropolitical tool, and has disproportionately impacted certain peoples and territories based on ethnoracial bias. The collapse of the local health system in the State of Amazonas is a systemic burden, not serendipity. A dialogue is proposed between decolonial and social quality approaches to analyze, unveil, and denounce the interplay between the coloniality of power patterns in non-Western contexts.

Keywords: Amazon, Brazil, coloniality, COVID-19, misgovernance, necropolitics, social quality

By the time I drafted this article, the number of reported deaths caused by the new SARS-CoV-2 virus (coronavirus) in Brazil had surpassed the gruesome mark of half a million people. The detection of the first case of the disease COVID-19 in the country happened on 26 February 2020; less than a month later, on 21 March, people had developed the disease in all twenty-seven states of the federation. Fast-forward one year. The world pandemic lingers, and while many countries strive to coordinate actions between different domestic instances and international diplomacy to prevent the spread of the virus within and between their territories, Brazil has been going against its historically progressive stance on public health issues and became misgoverned to the point of a public health collapse. In the international sphere, the federal government's stance against measures recommended by the World Health Organization (WHO) and the scientific community places the country as a pariah in international affairs, as it has been involved in diplomatic controversies over the origin of the virus, the use of drugs of doubtful efficacy, and the hesitation to purchase vaccines.

The prevailing rhetoric of the federal government is one of crisis fueled by scientific denialism, misinformation, and mismanagement of resources, all of which, aside from

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the important human cost, have contributed to a decrease in the social quality of the daily lives of many people, hitting the most vulnerable of Brazil's population especially hard. The misgovernance of the crisis had a multiplier effect and worsened preexisting inequalities at the national and regional levels to the point of the naturalization and banalization of death (Albuquerque et al. 2020).

Against the backdrop of three changes at the head of the Health Ministry, the handling of the pandemic by the Brazilian federal government has been described as inconsistent by some, disastrous, negationist, and potentially criminal by several, including the press, national and international academic circles, and non-governmental organizations, and the investigations of a parliamentary commission of inquiry.

This article is an ongoing (almost live) report and analysis of how the crisis has contributed to transforming the country into one of the main epicenters of the pandemic, ultimately turning governmental policies into active instruments of death. Following a social quality approach (SQA), the study inquires how the arrival of the COVID-19 pandemic to the frontier region of the Amazon intertwined with and reinforced known underlying trends and inequalities in different life domains expressed in long-term societal complexities, urban–rural dynamics, and environmental transformations.

The article is organized in three parts. The first one contextualizes the governance of the pandemic by the Brazilian authorities and gives an overview of the diverse impacts on the health system and on people's lives. The second part takes a deep dive into the case of the Amazonas health system collapse. The third part analytically discusses how the impacts of COVID-19 have intertwined with and reinforced underlying trends and contradictions concerning societal complexities, urban–rural networks, and environmental transformations. The article concludes that known infrastructural and health system gaps interplayed with preexisting socioeconomic inequalities, ethnic bias, and assaults to local ecosystems and territorial safeguards, requiring a complex governance scheme to control the pandemic and to protect the most vulnerable. The absence of such diligent governance and, to the contrary, the promotion of misinformation and misgovernance instrumentally worked as a necropolitical tool that risked the lives of certain groups of people and their territories, compromising long-term social quality.

Explanatory Analytical Framework and Methodological Approach

Initially, the objective of this article was merely to observe the ways in which COVID-19 interplayed with preexisting inequalities and challenges concerning the social quality of peoples' lives, focusing on the specific context of the Amazon. The social quality approach (SQA) would serve as a framework to guide our gaze toward the complexities of the different dimensions of everyday life (i.e., IASQ 2012, 2019; Van der Maesen and Walker 2012, 2014). After all, it allows for analyzing conditional

and constitutional factors determining social quality. And these social quality factors can be approached from four societal perspectives (called "dimensions" in the SQA): the sociopolitical and legal, the socioeconomic and financial, the sociocultural and welfare, and the socioenvironmental and ecological. The complex dynamics resulting from the pandemic have put enormous pressure on these dimensions. This useful framework would guide me to expose how the societal dimensions in the course of the COVID-19 outbreak evolved alongside, intersected with, and influenced one another. Thus, a comprehensive analysis of the complex impact of the COVID-19 pandemic was within reach.

As the events and news in Brazil unfolded, showing unprecedented dramatic impacts on people's lives, already in 2020 my preliminary analyses pointed to the brute misgovernance of the pandemic, especially in the Amazon. The dramatic nature of the impacts brought me to extend my original social-quality-related scientific perspective. In Brazil, "death" as such had become such a horrifying phenomenon directly related to practices of grief misgovernance that I felt it should play an important part in my analysis. I therefore decided to borrow from Achille Mbembe the powerful concept of "necropolitics." In his view, necropolitics refers to the control by the state of the realms of life and death, specifically when it disproportionately affects specific groups (Mbembe 2003, 2019). Herewith, a fundamental moral component, referring to dignity and social justice, would be woven into the interpretation of what happened in Brazil. In my conclusion, I will therefore appeal to the social quality normative criteria (social justice, solidarity, equal value, and human dignity) to interpret and explain the case of the Amazon.

It became obvious to me that the impacts of the misgovernance in Brazil clearly seemed to demonstrate an ethnoracial bias. Moreover, it came to the surface that it was combined with a simultaneous assault on the ecosystems of the territories in the Amazon. These "faces" of the pandemic warranted the addition of the epistemological spheres of critical decolonial theories. These added considerations would also bring the analysis and discussion closer to the Latin American context (i.e., Lander 2003; Mignolo and Escobar 2013; Quijano 2000). From the decolonial perspective, the formation of the Brazilian state is understood as not having engendered the emancipation of all, but as having been carried out by local elites based on the "reproduction of colonial patterns of power," both in politics and in practices of everyday life (Maldonado-Torres 2007). Decolonial perspectives thus also expose ethnoracial bias expressed in systemic and historical vulnerabilities (Grosfoguel 2004; Mignolo 2011; Mignolo and Walsh 2018). Traditional and indigenous peoples of the Amazon, in particular, are constantly faced with the consequences of these adverse societal patterns.

In this article, I make the case for an approximation between social quality theory (SQT) and these critical, decolonial, theories in non-Western contexts. This is particularly useful in situations where societal complexities cannot be thought of outside the realm of the (past and present) control and transformation of ecosystems. Such is the case of colonialism, which, based on the constant expansion of economic frontiers,

entails the incorporation of territories and people (Grosfoguel 2009, Boanada Fuchs 2015). This process resulted in the construction of complex power hierarchies as a flipside to modernity (Mignolo 2011). This pattern is reproduced in societies that were colonies, especially societies in the Americas. Similar patterns may also be found in Asia, Africa, and Oceania, where native populations have struggled to attain an acceptable degree of social quality due to the experience of contextually, historically, and systematically adverse circumstances. Including critical decolonial approaches in my analysis sheds light on inequalities that are reproduced based on colonial patterns of power ingrained into the performance of state governance and naturalized in diffused practices of everyday life. Given the modern societal pattern in Brazil stemming from this historical context, I have tried to set up a theoretical framework that can guide me in my analysis of the Amazon. It also opens up the possibility of discussing the development of comparable approaches and normative interpretations that are applicable to other historical contexts, places, and peoples.

For my analytical framework, I have combined the SQA with above-mentioned decolonial approach. I will follow the recently laid out suppositions concerning SQT and the SQA explained in the International Association on Social Quality's Working Paper 17 (IASQ 2019: 56). The SQA primarily focuses on the outcomes of societal processes in terms of social quality. The decolonial perspective discusses societal complexities, which cannot be thought of outside the context of race, as well as the control and transformation of territories and ecosystems. In this way, both the SQA and the decolonial perspective attain explanatory power for the comprehension of the complex impacts of the COVID-19 pandemic in the Amazon.

In my analytical framework, a distinction is made between three *societal fields*: (1) long-term societal complexities; (2) urban–rural dynamics; and (3) environmental transformations. Each field is analyzed from four *dimensions of societal life*: the socioeconomic and financial, the sociopolitical and legal, the sociocultural and welfare, and the socioenvironmental and ecological dimensions. For my analysis of the Amazon, I consider the processes in the sociopolitical and legal dimension in each of the societal fields as determinants of the dramatic outcomes of the governance of the COVID-19 pandemic. "Necropolitics," being the outcome of "misgovernance on purpose," according to this framework, is understood as having been deployed as a targeted governance tool to achieve particular political goals.

The analytical framework based on SQT and the SQA expresses the interrelationships between the three distinct societal fields and COVID-19 as a necropolitical (governance) tool. It is schematically represented in Figure 1.

This analytical framework has a strong affinity with SQT and the SQA, which are described in the IASQ's (2019) Working Paper 17. For a thorough understanding of it, the connections between the concept of necropolitics and SQT and the SQA need to be further elaborated. However, the framework as it is presented here holds the explanatory power to unveil the conditions and mechanisms in the different societal fields that disproportionately burden specific peoples and territories. In the case of

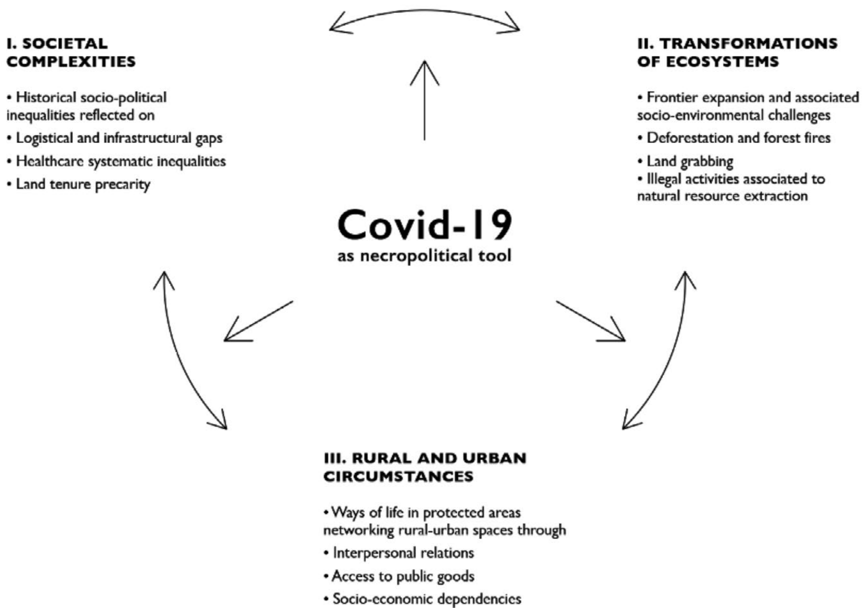

Figure 1. Analytical Framework Expressing the Interrelationships between Three Societal Fields and the Impact of COVID-19

Brazil, this means subjecting people to increased risk of death during the pandemic. The analysis explores how processes of misgovernance can ultimately be identified as a necropolitical tool, disproportionally impacting the livelihoods of vulnerable groups, especially racialized people of the northern "frontier" regions of Brazil.

The case of the impact of the COVID-19 pandemic is analyzed through a narrative approach describing in detail the deployed practices of governance and its impacts on the peoples and communities of the Amazon. The observed facts are interpreted and explained by reflections drawn from the analytical framework described above.

Brazilian Public Health Context: Misgovernance and Chaos

In March 2020, Brazilian president Jair Bolsonaro referred to the COVID-19 pandemic as nothing but a mild flu (BBC News Brasil 2020). The dismissive behavior of the Brazilian head of state was repeated in official and social media. He did not wear a mask during his public appearances, even though he was among crowds of people — public demonstrations of disdain toward domestic and international public health authorities that declared a pandemic and urged governments to adopt nonpharmacological physical restrictive measures to contain the spread of the virus, including

the use of facial masks, the adoption of physical distancing, massive testing, contact tracing, and the isolation of individuals suspected and infected with SARSs-CoV-2.

The president's bet on herd immunity early on in the pandemic, in the absence of a vaccine that proved effective at immunizing the population, meant the acceptance *a priori* that people would die in the process—evidently, the most vulnerable being at higher risk—and no concerted action would be taken to specifically safeguard them.

Even when the local health systems were on the verge of collapse, his reaction—despite advice to the contrary—was to minimize the impact of the crisis. "Will people die? Yes. I am sorry. But that is a fact of life" (Mota 2020; The Lancet 2020). The question at the heart of this article lies in who the federal government was willing to see perish (naturalized as a fact of life)—in whose lives were disposable for the president's version of the "greater good."

His actions, as a private person and as a public figure, generated much confusion in the population. Beyond individual (albeit politically charged) actions, the federal government's strategy to deal with COVID-19 defined the engagement in confrontational terms, leading to a stalemate inside federal government agencies and between the different entities of the federation, resulting in a political struggle between the president, governors, and mayors, and causing malaise with scientific research institutions.

Elected largely on the promise of an economic recovery, Bolsonaro's reluctancy to "shut the country down" and to implement restrictive measures that could adversely impact the economy related to his intention to remain in power after the coming elections. Even the emergency financial support released by the government to the economically vulnerable sectors of the population during the pandemic, which amounted to BRL327 billion (roughly USD60 billion),[1] has been admittedly extended further into 2021 by the Ministry of the Economy not only to inject money into the economy and to guarantee a minimum of dignity for those who cannot work, but mostly to instrumentalize poverty for electoral purposes (Valor Investe 2021). Meanwhile, investment in purchasing vaccines remained as low as BRL2.22 billion in 2020, and was complemented by BRL46 billion additionally spent in 2021 (National Treasure—Transparency 2021).

Economic and health needs were perceived as mutually exclusive competing claims (contrary to how the SQA sees them). Many governors and mayors that followed the WHO's recommendations were criticized by the federal government; others capitalized on the president's popularity, mimicking his discourse and behavior. This combative impetus hampered attempts at a national coordination between the federal and the various local governments. The stalemate meant that no policies at the national level were adopted in the sense of consistently supporting the widespread use of facial masks, adopting physical distance schemes, restricting movement (controlling ports and airports), implementing mass testing, and initiating contact tracing. The result has been a permanent state of crisis in Brazil.

In the absence of clear guidance from above, several governors and mayors entered a political dispute with the federal government and implemented their own local measures to contain the spread of COVID-19 within their respective areas of jurisdiction. The federal government even attempted to block local governments from imposing restrictions via executive decrees; however, the Supreme Court clarified and guaranteed that the entities of the federation, states and municipalities, have the joint (common) constitutional right and obligation to legislate and act in order to uphold the public health interest (Article 23.II of the Federal Constitution of 1988) including the "adoption and maintenance of restrictive measures legally permitted during the pandemic, such as, the imposition of physical distancing and isolation, quarantine, suspension of school activities, restrictions to the commerce, cultural activities, and circulation." This safeguarded the right of the federal government to impose further, and more restrictive, measures at the national level (Campilongo 2021; Supreme Court 2020).

Ultimately, even high-ranking Brazilian business executives released a joint statement urging the federal government to support actions at the local level to restrict mobility and incentivize the public to use face masks. The sabotaging of local efforts, as well as the government's lack of initiative and low investments in the purchase of vaccines were singled out as being responsible for a prolonged economic crisis. In that sense, the letter supported a view that binds together economic and public health interests, as "it is not reasonable to expect economic recovery in a situation of uncontrolled epidemic" (Open Letter 2021: 2).

The stalemate that prevented effective coordination between the entities of the federation also affected the relationship between different agents inside the federal government. During the largest health emergency the century has ever known, the Brazilian Ministry of Health has been headed by four different Ministers in a period of less than one year: Luiz Herique Mandetta (until 16 April 2020), Nelson Teich (until 15 May 2020), Eduardo Pazuello (until 23 March 2021), and Marcelo Queiroga (since 24 March 2021).

Mandetta, a doctor and a politician, defended physical distancing measures to contain the spread of the virus, giving the public and private healthcare systems the ability to better prepare for the waves of COVID-19 patients, mirroring and learning from the different epidemiological curves that quickly unfolded in Europe weeks before the virus reached the Americas. Mandetta held regular public press conferences to inform the population about the development of the epidemiological scenario, and kept in close contact with national and international public health interlocutors, including local governments and the WHO. His emergence as a politically prominent person holding contrasting views from those of the president increased tensions inside the federal government, ultimately leading to his ousting.

His replacement, the oncologist Teich, was believed to be more amenable to the president's views given his earlier status as an informal advisor to Bolsonaro's presidential campaign. However, Teich and the president also had irreconcilable differences. The most notable controversy was the pressure the president put on Teich to change

public health protocols in order to approve and include chloroquine, an antimalarial drug, for the early treatment of COVID-19 patients. Clinical trials back then remained inconclusive regarding the benefits of its use in COVID-19 patients, but they warned the public about potential adverse effects (WHO 2020). In parallel and unilaterally, Bolsonaro also changed the physical isolation protocols to include beauty salons, barbershops, and gyms as part of the category of essential activities in order to circumvent restrictions on nonessential activities that had been recommended by the Ministry of Health. The stalemate inside the federal government led Teich to resign his position twenty-eight days later.

The directorship of the Ministry of Health remained vacant for two weeks and was finally occupied on an interim basis by General Pazuello, a person of military rank and no medical expertise; he was aligned with the federal government's positions and lasted longer than his predecessors (Cancian 2020). It was during his time in office that the pandemic reached unthinkable and uncontrolled thresholds. In Figure 2, 3, and 4, the course of the case rate, the number of deaths, and the cumulative number of deaths in Brazil are presented, respectively.

As the numbers continued to grow, the usual communication venues between the Ministry of Health and the public were canceled, and this was followed by a public health data blackout on 5 June under the pretense for a need to revise the criteria and

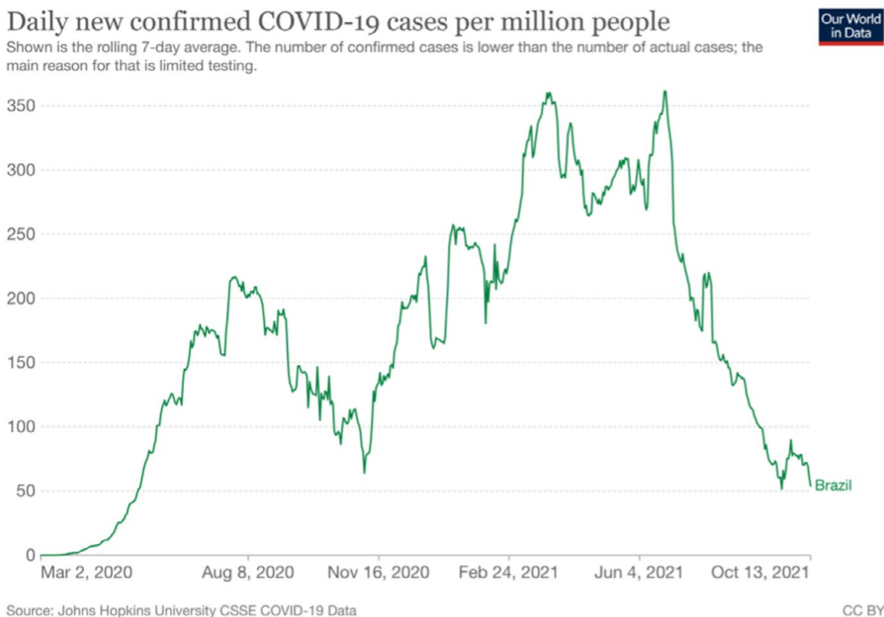

Figure 2. Brazil: Case Rate per Million Population, March 2020 – October 2021

Figure 3. Brazil: Absolute Number of Deaths, March 2020 – October 2021

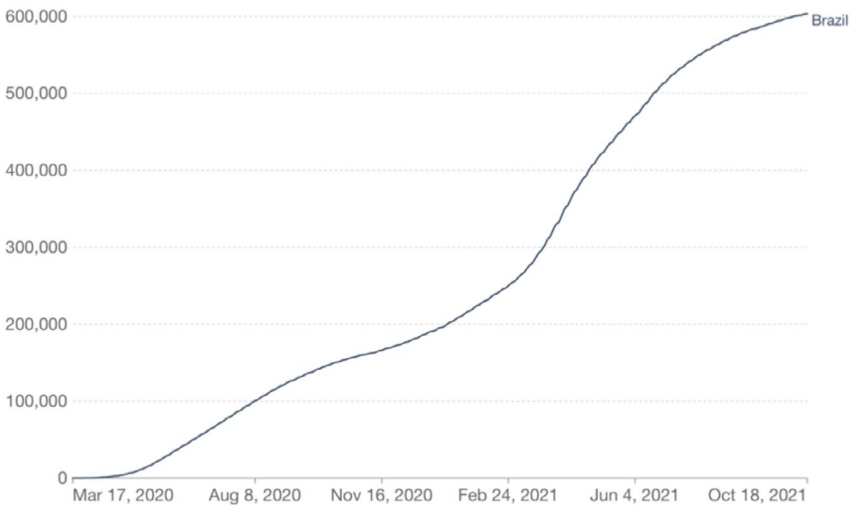

Figure 4. Brazil: Cumulative Number of Deaths, March 2020 – October 2021

classification of COVID-19 cases. As a reaction to this event, the major press companies of the country pooled their resources in order to keep a parallel count based on data directly collected at the local state level (Muniz et al. 2020).

Pazuello pressed for changing health protocols to include the early treatment strategy to deal with COVID-19 patients. A new app developed and promoted by the Ministry of Health, known as Trat.Cov, was launched in the northern city of Manaus, Amazonas, in January 2021. The app was supposed to assist doctors in the early diagnosis of COVID-19, offering suggestions for treatment options (including the administration of chloroquine). Pazuello said that "the diagnosis comes from the doctor, not from the test [results], and the treatment course of action and prescription come from the medical professional . . . the orientation [of the Ministry] is the early treatment" (TV Brasil 2021, my translation). The early treatment protocol was composed of a combination of drugs, such as chloroquine, hydroxychloroquine, and ivermectin, that came to be known as the "COVID-Kit" (Ministry of Health 2020).

During the peak of the pandemic, the main official recommendation and action organized by the federal government relied on the acquisition in large quantities, promotion, and prescription of medication with no or dubious efficacy for treating COVID-19. Most regions of the country reached maximum ICU capacity during Pazuello's term in office (Figure 5). In Manaus—the city chosen to showcase the government's strategy—the health system collapsed. The app was suspended, and Pazuello

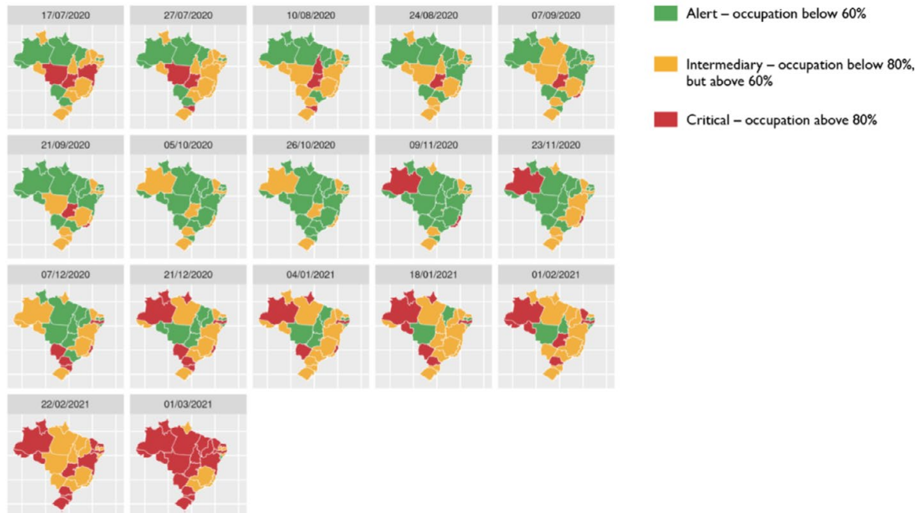

Figure 5. Brazil: ICU Bed Occupancy Rates by Region

quit on 14 March 2020. The Brazilian Ministry of Health is now being headed by its fourth Minister, and the handling of the pandemic by the federal government is now the object of investigation by a parliamentary commission of inquiry.

In parallel, the polarization promoted by the president's discourses concerning the dilemma between economic and health interests, which were based on scientific denialism, has been serving as a diversion for the simultaneous passing of policies that stimulate the predatory occupation of environmentally sensitive areas—such as various areas in the Amazon—worsening deforestation, and the invasion of protected lands by those practicing illegal activities, including mining, logging, and land-grabbing.

The case presented below shows how the failure of the federal government to address the crisis compromised the coordination of health strategies at multiple levels. This failure, combined with and deepened preexisting social, economic, and environmental challenges, was a necropolitical tool that exposed certain people and certain territories to a premature death. A literature review on the early impacts of COVID-19-related policies in the Amazon has also been carried out to provide context for my interpretation and my arguments, especially the decision to discuss the social quality issue through a decolonial lens. A review of publicly available healthcare data, collected via the databases of the Ministry of Health, state-and municipal-level health secretariats, as well as public health institutes (e.g., Fiocruz), reveals that the collapse of the health system in the State of Amazonas was a burden, not a serendipity, borne by the most vulnerable and historically marginalized people of this region.

The Case of the Amazon

In this section, I focus on the interplay between preexisting inequalities in the Amazonas region and the multitude of pressures caused by the spread of COVID-19. The findings will be ordered according to the presented analytical framework. I will start by narratively depicting the processes in which the necropolitics brought about by the COVID-19 pandemic was given shape. Thereafter—following the three distinguished societal fields (societal complexities, transformations of ecosystems, and rural–urban circumstances)—I will present closer analysis and interpretations of the governance practices and events in the Amazon. I will put emphasis on the processes and the impacts with regard to the sociopolitical and legal dimension—that is, the imposed practices of governance. In the narrative regarding this dominant social quality dimension, the intersections with the sociocultural and welfare, the socioeconomic and financial, and the socioenvironmental and ecological dimensions will be unveiled.

Necropolitics during the COVID-19 Pandemic

The virus arrived in Brazil through the airports, spreading from the wealthier and urban populations to the poor urban populations, later reaching rural and more

geographically dispersed localities. It was expected that mortality rates would be considerably higher in the urban and densely populated cities of the southeast, and although this expectation became a reality, smaller municipalities of the north of the country, in the Amazon, got entangled in a regional epicenter of COVID-19. The collapsed local healthcare system exposed the most vulnerable to a lack of assistance and prolonged distress: they were condemned ultimately to unnecessary and preventable deaths. Manaus, the city capital of the State of Amazonas, reached the state of collapse not once, but twice—in April 2020 and January 2021—due to a lack of preparedness and coordinated action despite numerous prior warnings coming from research institutes and requests by local authorities.

Drawing from Mbembe's (2003, 2019) reading of the power of the state to control and normalize not only the realm of life, but also that of death, affecting equally people and territories, the development of events that unfolded in Manaus exemplify the impacts of necropolitics at its worst. The same politics that has been treating other marginalized groups of Brazilian society as disposable during the pandemic has in the north gained more pronounced and racialized contours, as the mortality rates there have become one of the highest in the country and in the world, disproportionately affecting the people of the forest.

The northern region of the country largely corresponds to the Amazon, encompassing nearly 50 percent of the Brazilian territory.[2] The Amazon is the largest tropical rainforest in the world and is rich in bio- and cultural diversity. It is the ancestral home to numerous indigenous peoples, as well as other forest people including riverine communities, rubber tappers, nut pickers, and others, who live in dispersed territories connected by a dense network of rivers. Despite the large geographic extension, the region is relatively sparsely populated.

At the core of the Amazon lies the State of Amazonas (Figure 6). The population of the state is estimated to be around 4.2 million, and the density is not more than 2.23 inhabitants per kilometer. This is also the region with the highest concentration of forest people who depend on its natural resources for the maintenance of their livelihoods and for cultural reproduction. According to the last census, conducted in 2010, there were 183,514 indigenous individuals of different ethnic groups living in the state of Amazonas (IBGE and FUNAI 2010).

However, the Amazon also faces several infrastructural and logistical problems that affect the social quality of the population. The local living conditions are among the lowest in the country; the human development index is at 0.674 (IBGE 2010); water and sanitation infrastructure falls below the national average, with only five out of sixty-two municipalities in Amazonas served by in-house sewage collection and treatment facilities (IBGE 2017). Besides the infrastructural problems, the region is also characterized by geographical isolation and logistical disconnection with other parts of the country. This relative isolation makes planning and governance in sight of integration even more important, and this knowledge should have dictated measures for preparedness immediately following the first case of COVID-19 in the region.

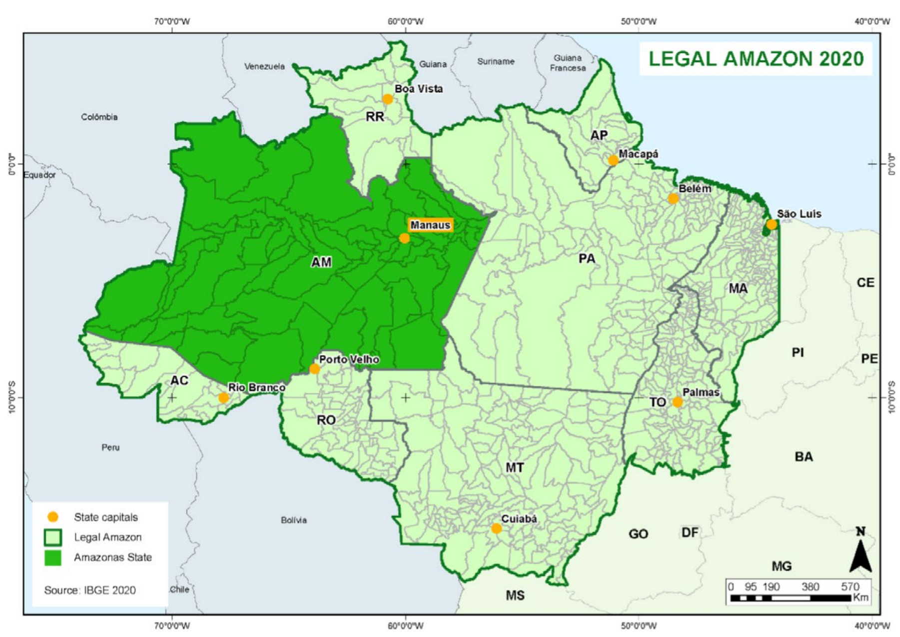

Figure 6. Map of the Amazon (2020)

However less populated and geographically isolated the northern region may be, once the virus started spreading locally, it did so quickly (Da Costa et al. 2021). The first case was reported in Amazonas on 13 March 2020. A little over a month later, the local health system had already exceeded its maximum capacity (Diniz 2020). On 26 April, due to the rapid and steep surge in COVID-19 cases, the hospitals in Manaus (the only center equipped with ICU beds in the State of Amazonas) could no longer absorb patients and house deaths were reported to correspond to 36.5 percent of all fatalities, a situation that repeated itself in the days that followed. Images showing the expansion of shallow ground graveyards appeared in the media around the world (for number of deaths, see Figure 7).

After this first peak, part of the political community expected that Manaus would become a case par excellence of herd immunity in Brazil. A study published by *Science* also suggested that 66 percent of the population could already have been infected by the virus by June 2020, and 76 percent by October 2020 (Buss et al. 2020, 2021). However, further monitoring with massive testing would have been necessary to account for the weaning of immunity, rate of circulation of the virus, and possible mutations (Toledo 2021).

It appeared that the situation in Manaus had stabilized, and the local authorities planned to ease the restrictive physical measures that had been put in place to contain

the spread of COVID-19 during the first wave. The full reopening of the economy happened in June 2020; the field hospital was shut down, and the city was the first one in Brazil to reopen public schools subsequently in July 2020. However, the virus continued circulating, and a rapid increase in infections was reported between September and October 2020, leading the government of Amazonas to order once again the closure of bars, entertainment venues, and beaches. In December, further restrictive measures were foreseen during the end of the year festivities: from 26 December until 10 January all nonessential activities should have stopped. Public protests filled the streets of Manaus. The end of the year was a much-awaited period during which commercial activities were expected to compensate for the losses that had been felt throughout 2020. As a result of the popular pressure, the governor revoked the restrictions. The lack of control of COVID-19 in Amazonas contributed to the collapse of the health system for the second time, between December 2020 and January 2021.

The mayor of Manaus declared state of emergency. Five hundred people waited to be admitted into intensive care beds in the city. Those who found care at the hospital still had to face a shortage in the supply of oxygen. The demand for oxygen increased fivefold in the first two weeks of January, reaching 70,000 m^3 per day—more than double what was needed during the first peak in April–May 2020 (30,000 m^3 per day). The local production capacity in Amazonas is 28,000 m^3 per day, meaning that the deficit caused patients to die of asphyxia: many deaths were preventable (Marinho and Ferrari 2021; Terra 2021; The Economist 2021).

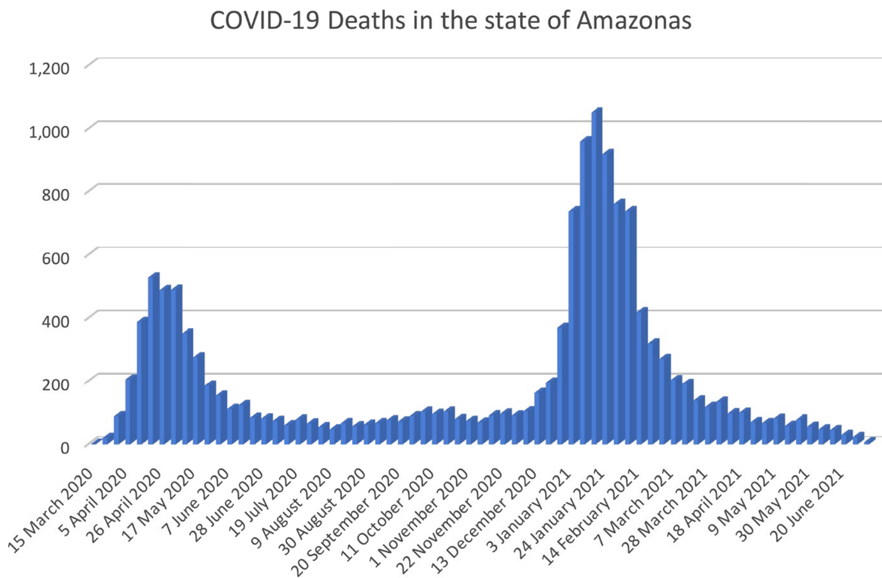

Figure 7. Number of COVID-19 Deaths in Amazonas, March 2020 – June 2021 (Source: Author’s visualization of data from FVS 2021)

The municipality requested the logistical response of the federal government in order to coordinate and operationalize the distribution of oxygen from different regions of the country into Manaus. The geographic isolation of Manaus and the central role played by Manaus in the local health system, in the absence of coordinated action between entities of the federation, timely aid and financial assistance, and compliance with distancing measures, further strained the local health system, according to the mayor.

Representatives of the Ministry of Health visited Manaus in early January and noted the possibility of collapse. However, the official response of the federal government insisted on the adoption of the early treatment protocol. The Ministry of Health chose Manaus as the city to launch the new app—Trat.Cov—to guide medical professionals in applying said protocol. Health Minister Pazuello blamed the lack of compliance with this treatment protocol as a reason for the collapse of the local health system, and not the lack of preventive measures and the unequal access to healthcare resources (Lima and Varella 2021).

Ad hoc solutions had to be found, and around 700 high-risk patients were transferred to other hospitals across the country on airplanes belonging to the national air force and civil aviation authority to find adequate treatment (Vargas 2021). Oxygen supply (107 m^3) was donated from the neighboring country, Venezuela, directly to the State of Amazonas on 18 January (Monnerat 2021).

Faced with chaos, the economy–health dichotomy gave way to physical restrictions that were more severe than ever before: even circulation in the streets of Manaus was prevented from 7 pm to 6 am for a period of ten days from 14 January onward, and all nonessential activities and all schools were shut down once more—too late, some would say. In the meantime, the rapid reproduction and transmission rates of the virus led to the emergence of a new mutation. Found originally in Manaus, the variation P1 SARS-CoV-2 (later renamed Gamma by the WHO) is more contagious, and it contributed to higher rates of hospitalization in all age segments across the country during the second wave (Bastos et al. 2021).

This case demonstrates how confusing messages conveyed by the political leadership affected the willingness of the population to comply with measures adopted at the local level to respond to the epidemiological state of each locality, as exemplified by the protests to reopen the economy in Manaus amid a new surge in COVID-19 cases (Mattoso 2021). It also shows how the lack of coordination at the national level led to the collapse of the supply of basic resources to treat COVID-19 patients in strained and isolated places of the country, such as the Amazon. Manaus became a regional epicenter of COVID-19 from where a new variation spread, tipping over the scale to more casualties across the country and leading to a mortality rate of 261 deaths per 100,000 individuals in Brazil and 325 deaths per 100,000 in Amazonas (CONASS 2021).

The cumulative world case fatality rate of COVID-19 by the end of May 2021 was 2.15 percent, whereas in Brazil it was 2.8 percent (Johns Hopkins 2021). However,

Brazilians living in Amazonas were subjected to an even higher risk: 3.4 percent, and at the regional epicenter, Manaus, the rate was 5 percent (CONASS 2021).

The severity of the pandemic in the Amazon has not been an unfortunate coincidence.[3] Prior knowledge regarding the socioeconomic characteristics, infrastructural gaps, and problems associated with healthcare inequalities could have been used to plan concerted actions between the local and the federal governments. The misgovernment of COVID-19 in the Amazon has adopted the contours of a necropolitical instrument, especially when the impact of the pandemic is analyzed taking ethnic bias (as Pareek and colleagues [2020] suggest) and territorial reconfigurations into account. The complex interplay between those different societal patterns are essential for understanding the conditions of possibility of the higher risk people in the Amazon were exposed to and the long-term consequences for them. In the following sections, the roots of the societal inequalities are further analyzed and explained using the interrelationships between the fields of our analytical framework. In each of the fields, in the sociopolitical and legal dimension, the impact of governance interventions plays an important part.

Sociocultural Complexities: Inequalities Accentuated

Of particular importance for the instrumentalization of the pandemic as a necropolitical tool are the ways in which knowledge has been used, ignored, or distorted to inform and justify different policies adopted by the government to handle the pandemic. When it comes to the local health system, sanitary and epidemiological publicly available data indicate that the region was at a resource disadvantage and had preexisting vulnerabilities that deserved attention. A laissez-faire strategy in such a context meant accepting the risk of death of many people in this frontier region.

Resources of the nationwide Universal Health System are distributed unequally and expose a healthcare gap in the Amazon; calculated per inhabitant, data collected between 2010 and 2020 shows disparities in terms of the availability of intensive care beds, doctors, and respirators. While in the southeastern portion of the country there are, on average, 244,16 doctors and 35 respirators per 100,000 inhabitants, in the north there were only 105,24 doctors and 19.10 respirators per 100,000 inhabitants. The overall rate of intensive care beds in the southeast of the country is 18.23 per 100,000 inhabitants, whereas in the north it is only 7.35 (CFM 2020; Mendonça et al. 2020; Morello 2021).

The existing resources are also unevenly distributed within the northern region itself: in Amazonas, intensive care beds are highly concentrated and only available in the city capital, Manaus (Ramalho et al. 2020). The local mayor referred to Manaus as a city-state—it regionally concentrates resources, but it is relatively isolated from other parts of the country, which places additional stress on the local health system when local resources reach depletion and people keep coming from other parts of the state looking for help.

In rural areas, the per capita physician rate is only 30 percent of that of urban areas (Morello 2021). People living in remote Amazonian communities need to travel for days before reaching the place where they may get the appropriate treatment. These preexisting inequalities exposed smaller towns and rural communities to higher vulnerability once COVID-19 spread, since they did not have sufficient healthcare facilities, personnel, and resources to deal with the amount and severity of cases (Pacífico et al. 2021). Death, in those cases, could occur prior to the patient being able to reach a treatment facility. For this reason alone, coordination between all entities of the federation should have become a priority in any strategic action to deal with the public health emergency in the Amazon both in terms of preventive measures and in terms of logistical support for treatment.

Another aspect of the pandemic that historically calls attention to the Amazon region is the fact that the Amazonian population has been relatively more affected by respiratory tract diseases; the region ranks second on the national scale. Especially worrisome have been the states of Amazonas and Pará (Mendonça et al. 2020). In those regions, indigenous communities have been found to be the most vulnerable to respiratory infections that can evolve into Severe Acute Respiratory Syndrome (SARS). They were therefore at higher risk for COVID-19 from the very beginning.

The arrival of COVID-19 in this region revived historical fears of ethnic cleansing caused by infectious diseases (Pringle 2015). Since the colonial conquest, diseases such as smallpox and measles, and more recently H1N1, have compromised the physical and cultural reproduction of entire indigenous groups (Amigo 2020; Charlier and Varison 2020; Zavaleta 2020). In general, indigenous individuals are more vulnerable because of their inability to respond immunologically to new infections (Rodrigues et al. 2021). Cumulatively, indigenous peoples also rank high for other risk factors including anemia, malnutrition, malaria, diabetes, obesity, and tuberculosis (ABRASCO and ABA 2020; Amigo 2020; Leite et al. 2020; PAHO 2020), all of which may contribute to the aggravation of a COVID-19 infection (Fiocruz 2020).

On top of these vulnerabilities, indigenous peoples' access to health services is precarious. Special healthcare is organized in thirty-four indigenous health districts (DSEI) spread all over the country. DSEIs exclusively serve officially homologated and demarcated indigenous reservations with basic healthcare attention. Indigenous peoples living outside those territories or in cities do not have access to this service. According to a Supreme Court ruling, the federal government's plans to deal with COVID-19 among indigenous peoples were vague and did not foresee practical and timely actions; and since they were based exclusively on the DSEI structure, they were considered exclusionary. On top of that, prejudice based on ethnicity transversally affected access and prevented many people of indigenous origin from attaining the full measure of treatment in the few cities that possessed the infrastructure needed to deal with COVID-19 in the Amazon.

Ethnic bias is also reflected in subnotifications of cases affecting the indigenous population. Fiocruz points to a subnotification indicated by excess deaths caused by

SARS. This subnotification may be connected to capacity as much as it is connected to prejudice and bias. Furthermore, most people of indigenous origin are not reported according to their own ethnicity but are generally referred to as *pardos* (brown or people of mixed origins) (Fiocruz 2020). In Amazonas, 87.7 percent of deaths were reportedly *pardos*, 2.3 percent indigenous, 1.8 percent black, and 8.5 percent white (FVS 2021).

William Silva and colleagues (2021) monitored cases of SARS, including COVID-19, between 2017 and 2020. Their study found out that there was a predominance of cases among indigenous populations in the states of Amazonas, Pará, and Sao Paulo, and a higher incidence of related deaths occurred in the northern states of Amazonas, Pará, and Roraima. Fatal cases of the disease were reported to be especially high among indigenous individuals below the age of 1 and above the age of 60 years old, which is a particular concern: as cultural traditions are often transmitted orally from the elders to the younger generation, many of these groups may be physically and culturally endangered (Fiocruz 2020; Mendes et al. 2021).

Urban–Rural Differences: Sociocultural and Welfare Implications

With no timely and consistent measures to protect the most vulnerable in sight, and fearing cultural extinction, some indigenous and other traditional forest peoples went into voluntary isolation and self-organized lockdowns. This has happened not only in Brazil, but also similarly in Colombia, Bolivia, and Peru, where communities instituted roadblocks and different means to block access to their territories (Kaplan et al. 2020; Zavaleta 2020). However, isolation poses additional challenges in terms of food security (Cupertino et al. 2020; Leite et al. 2020).

The vulnerability of Amazonian people to the rapid spread of the virus also has to do with the ways of life that connect interdependently multiple rural communities to urban municipal centers through a dense network of rivers, societal ties, public goods and services, and economic dependence. Rural dwellers, including indigenous populations, caboclo or riverine people, and extractive-based communities, have developed ties with urban centers also in the State of Amazonas and often travel to urban centers in order to have access to public goods (Ramalho et al. 2021; Silva et al. 2021).

They seek access not only to healthcare, but also education, informal job markets (mostly seasonal or based on daily wages), trade, and the purchase basic staples (oil, salt, sugar, etc.). Governmental financial assistance and services, such as pension payments and cash transfer programs, including the federal and local governments' COVID-19 emergency financial assistance, were also responsible for the attraction of various populations to municipal urban centers. In that sense, the Amazon, far from an idealized pristine forest, has been for quite some time already a network of urban–rural localities (or an urbanized forest as already described by Bertha Becker [1995]).

A study conducted in the Amazonian municipality of Tefé calculated that, on average, rural dwellers spent 2.8 days per week in municipal centers (Ramalho et al.

2020). The same study recommended the reduction in the number and duration of visits to urban areas, and the eventual lockdown of rural communities in peak times of COVID-19 transmission in order to reduce the exposure of individuals to the virus in more densely populated areas, including markets, banks, and basic healthcare centers, where—despite the physical distancing measures implemented by local governments—compliance with distancing measures remained low, being calculated at 50 percent at best.

Vulnerable forest-dwelling populations, of course, should not have to relinquish access to urban centers, since many depend on the aforementioned markets, government support, and daily wages to ensure food security. Physical distancing and other stricter circulation restrictions would only work if accompanied by measures to support vulnerable rural communities on site, supplying them with the basic necessities for survival. Information and awareness campaigns would also have been crucial to ensure the collaboration of the population and their compliance in times of peak transmission, especially in a vast territory such as the Amazon, where the monitoring of behavior represents an additional and costly challenge. However, as discussed above, the messages coming from the federal government were inconsistent, confusing, and, at times, undermining the efforts to contain the spread of the virus.

Coordinated action between the different governmental agencies would have been urgently needed, but instead, and according to the Brazilian Articulation of Indigenous Peoples (APIB, Articulação Brasileira de Povos Indígenas), the lack of resources allocated to the indigenous health subsystem or districts, combined with the lack of a consistent plan, turned governmental agents into the main vectors of the disease. Military and healthcare personnel that oversaw the distribution of drugs and care brought the virus into several remote communities (APIB 2021; Ferrante and Fearnside 2020a).

Once COVID-19 reached those remote areas, lack of infrastructure (improved drinking water and basic sanitation), as well as poor access to information and personal protection equipment, combined with traditional cultural practices that make physical distancing more difficult (common living spaces, shared cutlery and pots), rapid community-level spread occurred (Castro et al. 2020; Rodrigues et al. 2021). Amazonas was the state with the most indigenous infections and deaths due to COVID-19: 254 deaths, affecting families of more than twenty-six different ethnicities (APIB 2021).

It took indigenous peoples' self-organization and alliances with civil society to file a plea before the Supreme Court to have the emergency of the health situation concerning indigenous peoples addressed. The Court determined that the federal government must put in place a situation room to monitor COVID-19, revise policies, and plan concrete actions targeting indigenous peoples. The Court also ordered that all indigenous individuals be granted access to DSEI healthcare subsystem regardless of whether or not they were living on indigenous reservations, and that indigenous representatives get to participate in the design of relevant health policies (Barroso 2020).

Transformations of Ecosystems: Disposable People and Territories up for Grabs

During the pandemic, there was a convergence between increased deforestation, forest fires, violations of territorial rights by illegal activities, and the spread of the coronavirus. Deforestation and uncontrolled fires reduce considerably the air quality due to the suspension of particles in the air, which, in turn, worsens the social quality in the daily life of the local population by causing respiratory tract diseases, and the illegal activities act as vectors for the spread of the disease.

Deforestation had been steadily growing in the Amazon since 2013 and peaked after 2018. Between 2019 and 2020, an area compared to more than six times the city of São Paulo (or 10,100 km^2) was deforested in the Amazon (a 34 percent increase in relation to the previous period, 2018–2019, which had already registered another 50 percent increase compared to the year before). From 2020 to 2021, deforestation was at 10,900 km^2 (INPE 2021), the highest rate in twelve years.

The dry season in the Amazon happens annually and starts roughly in late June, preparing the land for agricultural cultivation, being practiced in controlled ways by traditional communities and by many rural dwellers. Its indiscriminate use by large landowners or by those engaged in illegal activities leads to a devastating scenario. Increased deforestation results in more land covered by dry organic material that acts as a conductor for the spread of indiscriminate forest fires.

Between July and September 2020, 68,100 km^2 of the Amazon burned to the ground, the largest area in twenty years (Figure 8). In the Province of Amazonas alone, more than 14,000 fire foci were detected by DETER, the satellite and early warning system of the National Spatial Research Institute (INPE), burning 14,500 km^2 (INPE 2021).

As a response to the growing criticism and pressures by international donors, the federal government created the Amazon Council. Despite its creation being meant to coordinate environmental actions in the region, the Council has excluded many relevant stakeholders, such as civil society, environmental agencies, and research institutes (Ferrante and Fearnside 2020b). In addition to the creation of the Council, a federal decree banned the use of fire during four consecutive months. Nevertheless, the head of the Council who released data about deforestation was relieved of his position in August 2019, affirming that little was done to enforce measures against deforestation.

Not delving into the arbitrary character of his dismissal and focusing on the aspects that complicated the governance of the pandemic, I want to stress the fact that forest fires produce smoke pollution that reduces the air quality in the Amazon by 53 percent on average annually during the dry season; air pollution peaks between the months of August and September. Since 2017, information from the Universal Health System has shown that seasonal respiratory diseases place additional pressure on the local health system because 0.5 percent of the population is admitted to local public hospitals due to bronchitis, asthma, or pneumonia. The seasonal stress on the

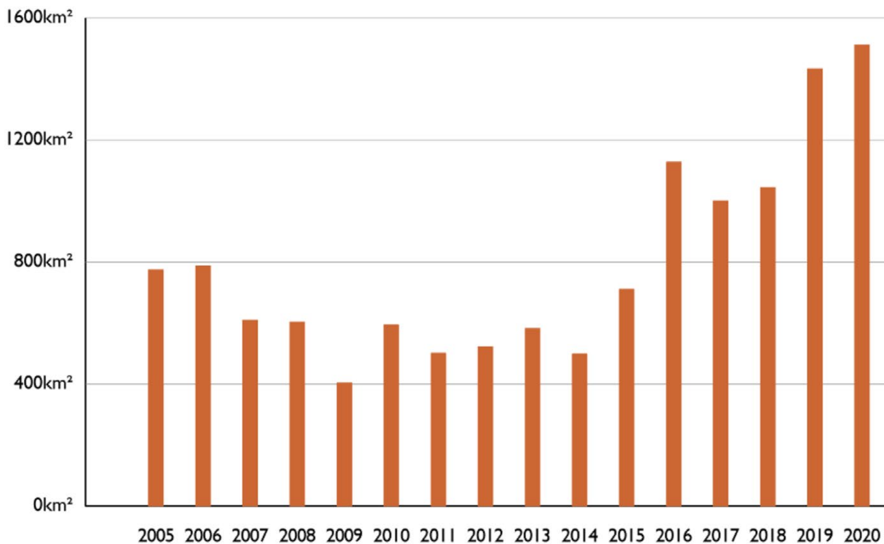

Figure 8. Deforestation (km^2) in the Amazon

local health system is, therefore, a known variable. As air quality worsened even further in 2020 due to increased deforestation and fires, it also combined with the spread of COVID-19, partially explaining the health emergency that occurred in Manaus (Morello 2021; Moutinho et al. 2020).

The fact that no additional resources were made available to prevent and mitigate this complex interplay shows that the social quality of the daily life of the local population was a low-priority concern for the political authorities. Furthermore, the health emergency has been instrumentalized to distract the general public and the media in order to simultaneously push a political agenda that dismantles environmental legislation and traditional peoples' territorial safeguards. The former Minister of the Environment, Ricardo Salles, in April 2020 suggested that the federal government use the fact that everyone was paying attention to pandemic issues as an opportunity to "let the herd pass"[4] (Gonzales 2020), referring to the window of opportunity to approve laws and policies to flexibilize the use of the territory in environmentally sensitive areas such as the Amazon, opening them up to economic exploitation, including land speculation. These proposals were consistent with presidential campaign promises to open the Amazon up to "development" by pushing through controversial projects, such as the regularization of lands grabbed from protected areas, the bending of rules for the concession of public forests, and the liberalization of mining on indigenous lands (Calvimontes et al. 2020; Ferrante and Fearnside 2020a).

The expectation of greater leniency and flexibility concerning environmental laws led to an increase in the encroachment on public lands and protected areas, including

indigenous territories. More than 99 percent of the deforested areas in Brazil had some sort of associated irregularity, be it a lack of permits or an illegal invasion of a prohibited location (MapBiomas Alerta 2020). In 2020, 19 percent of total deforestation happened due to encroachment on protected areas, such as indigenous territories and conservation parks (ISA 2021). Furthermore, deforestation is often due to land speculation, land-grabbing, which in turn is associated with the predatory exploitation of natural resources such as that done through illegal logging and mining.

Enduring land tenure precarity and weakened trust in monitoring and enforcement have left indigenous communities and other forest people exposed to the invasion of their lands and the degradation of the natural environment upon which their livelihoods depend. And all of this happened *pari passu* with the interiorization of the pandemic. As a self-fulfilling prophecy, the pandemic was used as a smokescreen for pushing the deforestation frontier, while deforestation and associated illegal activities contributed to the interiorization and worsening of the pandemic. The invasion of lands by illegal activities worked as a vector for the spread of the disease to already vulnerable populations. Deforestation and fires worsened air quality and added pressure to a health system already at a known resource and infrastructural disadvantage. In this context, the virus spread quickly to populations in situations of historical disadvantages and known vulnerabilities, including indigenous peoples and other forest peoples. This was the recipe that turned Manaus into a regional COVID-19 epicenter.

Conclusion

Given the obvious misgovernance of the pandemic, a parliamentary commission of inquiry was installed on 27 April 2021 and authorized by the Supreme Court to investigate possible crimes and administrative wrongdoings committed by agents of the federal government in connection with actions or inactions taken during the COVID-19 pandemic. During the course of the investigation, many depositions have revealed that the federal government adopted a denialist position, refuting scientific evidence, and ignoring the counseling of two (now former) Ministers of Health. The official and personal conduct of the President, advised extra-officially by a parallel council, contributed to propagating conflicting messages to the population. This council would have even spent public funds in hiring internet "influencers" to propagate misinformation during the pandemic, which in turn made societal adherence to pandemic-related restrictive (yet lifesaving) measures low.

Several depositions, including those of former Minister of Health Pazuello, and of the Minister of External Affairs Ernesto Araújo, revealed that the healthcare system collapse in the Amazon had been known and that—in possession of this information—the official positioning of the government remained unchanged. The government appears to have attempted to politically pressure regulatory agencies to change the recommended uses of medication (such as chloroquine) to implement the "early

treatment protocol" launched in Manaus (BBC News Brasil 2021). Furthermore, the commission unveiled evidence of governmental inaction in relation to the negotiation and purchase of certain vaccines, and evidence of corruption and malfeasance connected to the negotiation and purchase other vaccines.

The investigation has certainly put pressure on the government to accelerate the rolling out of vaccinations, which had had a slow start in late January 2021. Vaccination is applied via the Universal Health System and, in general, follows a list of priority groups, immunizing people above the age of 80 years old and vulnerable populations such as indigenous and traditional communities, then contemplating people working in health services and other essential services, people with preexisting health conditions, and then finally opening to the general population in order of age, from the oldest to the youngest (Vilela 2021). In October 2021, 46.5 percent of the total population of the country had been fully vaccinated, in Amazonas it was 37.98 percent.

In my study, I have tried to uncover the dramatic impacts of practices of grief misgovernance of the COVID-19 pandemic for the indigenous and other disadvantaged peoples of the Amazon. In the causal processes that I have described, analyzed, and interpreted, the interconnectedness between the four societal dimensions (sociopolitical and legal, sociocultural and welfare, socioeconomic and financial, and socioenvironmental and ecological) have come to surface. The pandemic has not only intertwined with and accentuated the preexisting inequalities and societal complexities in the Amazon, but it has also—and this is much worse—been instrumentalized in such a way as to violate the basic rights of vulnerable peoples of the Amazon and infringe upon their territorial safeguards.

It is known that infectious diseases have historically worked in tandem with the grabbing of indigenous ancestral lands and natural resources (Cupertino et al. 2020; ISA 2020) and the liberating of lands for activities deemed economically productive by external powers (Boanada Fuchs 2015). This process of frontier expansion operated during the pandemic in two ways. On the one hand, the emergency caused by the pandemic was used as a diversion for expansionist activities to encroach on protected lands. On the other hand, these activities caused the further spread of the virus, compromising livelihoods and the ability of culturally distinct groups to survive as such.

The simultaneous assault on traditional peoples' health rights and territorial safeguards exposed them to heightened vulnerability during the pandemic. Indigenous peoples together with other communities of the Amazon, who already faced known inequalities in terms of access to healthcare and infrastructure, had their bodies and territories treated as disposable and open to experimentation (such as the delivery of chloroquine and the lobbying for the use of the early treatment protocol in Manaus), violence (asphyxiations caused by the lack of medical oxygen), and ultimately death. All the while, in parallel, lands were being invaded, and deforestation and fires were running rampant, further compromising the social quality of the daily life of the local population.

The intersection of preexisting challenges in the four societal dimensions of social quality, expressed in seasonal burnings, healthcare gaps, and infrastructural and societal inequalities, made for a complex governance puzzle when coupled with the arrival of COVID-19 in the region. This scenario would have required united and targeted coordination among different agencies and levels of the federation. In contrast, the political weaponization of the health debate and the apparent readiness to let people die deepened the crisis in the Amazon. The inaction, lack of coordinated effort, and willful use of misgovernance as a distracting tool to allow for corruption and the furthering of environmentally degrading and ethnically biased political agendas have grossly undermined the conditional factors in peoples' lives to attain social quality. Analyzing the interconnectedness of governance interventions impacting the mortality figures shows that COVID-19 along with the instrumentalization of the pandemic disproportionately impacted peoples and territories of the Amazon, justifying the interpretation that sees the unfolding results as necropolitics.

In the frontier region of the Amazon, necropolitics worked diffusely through actions (instruments and policies) and inactions (laissez-faire attitude) at different times, outsourcing the risk of contraction, lack of appropriate treatment, and death to the most vulnerable sectors of the population, who have been burdened by the systemic violation of conditional factors for an acceptable standard of social quality: a fair standard of living, health, food security, a healthy environment, mobility, and access to public goods and services. Ultimately, the deaths of people pertaining to specifically protected groups, and the subsequent deaths of their ways of life, weaken their territorial claims, and open them up to other forms of occupation. This includes the "passing the herd" strategy alluded to by the former Minister of the Environment, which was done while everyone was worrying about the pandemic, not looking close enough at regulatory changes. This is a strategy of frontier expansion that deploys necropolitics (applied to people, cultures, and natural spaces upon which people's livelihoods depend). A mix of regulation and laissez faire in the name of sector-specific economic interests further impoverishes the local social quality of peoples' lives. The unveiling and denouncing of the applied necropolitical tools, as well as the scientific analysis of their impacts on the territories, natural environments, and the social quality of certain vulnerable groups, are extremely important. It is a necessary step for lobbying for and designing policies to redress the cumulative impacts of the COVID-19 pandemic, concomitant vulnerabilities, and preexisting historical inequalities.

Contrary or perhaps complementary to Mbembe's work, the regulation of life and death at the frontier through the action or willful inaction of the government has been engrained in the formation of the Brazilian state. The territories and people living at the Amazonian frontier are not "extra-legal spaces" (Russo Lopes and Bastos Lima 2020), but they have been constantly historically interplaying with the global processes of frontier expansion that materializes through instruments of the territorialization of state powers (legal-political tools), responding to the societal complexities of time and place.

The ethnoracial and territorial bias, expressed so categorically by the pilot launching of the Ministry of Health's Trat.Cov app and the experimental use of treatment protocols on places and peoples at the frontier, has led this article to open the social quality analytical framework up to conceptual/analytical tools of the Global South, such as necropolitics. And beyond that, it warranted a decolonial epistemology of frontier (or border) thinking to understand the combined result of necropolitics and long-term colonial patterns of power enshrined in the misgovernance of the pandemic. This misgovernance ultimately contributed to a continuous process of frontier expansion at the expense or disposability of certain bodies and territories.

Considering the preexisting conditions of the northern region and the racialized inequalities that became so apparent in this region, it was known in advance whose bodies and ways of life were going to become disposable at the sight of an uncontrolled COVID-19 pandemic. Public data about the inequalities of the distribution of the health system's resources and infrastructure, the historical preexisting vulnerabilities of traditional groups of the Amazon, including indigenous peoples, and the systemic assaults on Amazonian territories already pointed to an enhanced risk in the case of exposure to the pandemic in comparison with other groups of Brazilian society. Given this existing knowledge, the political choices that were made about what to do, when to act, or when not to act speak volumes. In social quality theory, four normative criteria are formulated in order to morally evaluate societal processes aiming at improving the circumstances of peoples' daily lives. It needs no argument that in the practices of misgovernance that recently took place Brazil moral principles such as social justice, solidarity, equal value, and human dignity were trampled underfoot.

Regarding the theoretical and methodological aspects of this study, it is my conviction that the analytical framework explains the burdens that have been inflicted on the peoples of the Amazon. In the presentation of analytical framework in Figure 1, I assumed that theoretical and methodological connections can be made between practices of necropolitics, and SQT and the SQA. Further elaboration of these connections is one of the great opportunities for future studies. Both theories and approaches may be enriched by such a goal. This seems even more important, because in many other societal situations of gross inequality deprivation and neglect may indeed lead to necropolitics if no action is taken. It is my assumption that this scientific approach can contribute to the further development of theoretical/analytical frameworks needed to guide studies aiming at the comprehensive understanding of societal complexities that lie at the root of inequalities. Further critical conversations with SQT, other decolonial theories from the Global South, such as the one suggested here, need to be the subject for further research, debate, and development.

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Notes

1. The number system in Brazil follows the same one as in the United States, where one billion corresponds to one thousand million according to the number system adopted in Europe.
2. The Legal Amazon has been politically precluded by law since 1953 from the need to plan the economic development of the region. Today, the area corresponds to 59 percent of the Brazilian territory encompassing nine states (Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima, and Tocantins) and part of the State of Maranhão. It is home to 56 percent of Brazil's indigenous population.
3. A counter-example concerning different ways of governing the pandemic in the Amazon is French Guiana. Mathieu Nacher and colleagues (2021) compare this case with the Brazilian Amazonian states, and conclude that in French Guiana measures such as early lockdown, air traffic control, border closure, mass testing, and contact-tracing turned a similar public health situation around, whereas the inconsistency of measures in Brazil led to the collapse of the public health system.
4. *Passando a boiada* in Portuguese is a popular expression that denotes the passing or, in this case, the approval of (de)regulation measures in bulk.

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