

# Human rights violations and health impacts: Violence against the peoples of the Cerrado

*Violações de direitos e impactos à saúde: as violências contra os povos do Cerrado*

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**ABSTRACT** The essay examines how Indigenous peoples and traditional communities of the Cerrado have their territorial, social, and health rights systematically violated in the context of environmentally driven conflicts marked by escalating violence. Its purpose is to analyze the relationship between environmental injustice and the health impacts experienced by these populations, highlighting the multiple dimensions through which violence operates. The research draws on cases documented by the ‘Mapa de Conflitos Envolvendo Injustiça Ambiental e Saúde no Brasil’, selecting ‘paradigmatic examples’ such as those involving the Guarani and Kaiowá in Mato Grosso do Sul, the Guajajara and Awá-Guajá in Maranhão, the Kalunga Quilombola Territory in Goiás, the Estrondo estate and water-related conflicts in Correntina (Bahia), and the Araguaia-Tocantins Waterway (Pará/Tocantins). A qualitative content analysis was applied to this documentary corpus. The findings show that collective, socio-environmental, physical, institutional, and symbolic forms of violence function as strategic mechanisms to undermine and displace traditional ways of life, driven by interests linked to agribusiness, water-intensive enterprises, mining, and other sectors. The cases also reveal persistent barriers to accessing healthcare, ongoing territorial loss, and the urgent need for public policies capable of addressing the specific realities and rights of these peoples.

**KEYWORDS** Indigenous peoples. Rural population. Violence. Environmental health. Map.

**RESUMO** O ensaio examina como os povos originários e as comunidades tradicionais do Cerrado têm seus direitos territoriais, sociais e à saúde violados em contextos de conflitos ambientais marcados pela violência. O objetivo é analisar a relação entre injustiças ambientais e impactos na saúde dessas populações, evidenciando as múltiplas dimensões da violência. A pesquisa utilizou como referência relatos publicados pelo ‘Mapa de Conflitos Envolvendo Injustiça Ambiental e Saúde no Brasil’, selecionando ‘casos paradigmáticos’, como os dos Guarani e Kaiowá/MS, Guajajara e Awá-Guajá/MA, o Território Quilombola Kalunga/GO, a Fazenda Estrondo e a luta pela água em Correntina/BA e a Hidrovia Araguaia-Tocantins (PA/TO). Ao corpus documental, foi aplicada uma metodologia de análise qualitativa de conteúdo. As principais conclusões a partir dos conflitos apresentados indicam que as violências coletivas, socioambiental, física, institucional e simbólica atuam como estratégia de inviabilização dos modos de vida tradicionais, impulsionadas por interesses do agro e hidronegócio, mineração e outros setores. Os casos também evidenciam a precariedade do acesso à saúde, a perda territorial e a necessidade urgente de políticas públicas que considerem as especificidades desses povos.

**PALAVRAS-CHAVE** Povos indígenas. Comunidades rurais. Violência social. Saúde e ambiente. Mapas.

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## Introduction

The purpose of this essay is to examine how the social and territorial rights of indigenous peoples and traditional communities in the Cerrado have been violated, particularly the right to health in its broadest sense, and the role of violence in these situations of environmental conflict.

Violence is today a major concern in the field of public health. Although it has likely been part of the social landscape since the dawn of humanity, and the monopoly on its legitimate use can even be seen as one of the defining criteria of the modern state<sup>1</sup>, since the mid-1980s, this issue has mobilized the health sector in Brazil. It has been the field of public policy proposals that advocate for a different role for the State, this time as a strategic agent in confronting and mitigating the negative effects of violence on health. In particular, through health assistance, prevention, and promotion policies developed in the process of creating and consolidating the Unified Health System (SUS).

Furthermore, organized civil society has also been active on this front of social action, particularly since the last two decades of the 20th century, due to the increased strategic importance that the environmental issue has assumed geopolitically and the growing organization and struggle for rights by traditional peoples and communities, now seen as important agents in the preservation of life on a planet plagued by climate change and the advance of the deleterious effects of the capitalocene<sup>2,3</sup>.

As a political-coercive instrument, violence can trigger or repress social transformations. It can be used to eliminate political competitors or impose fear in a territory, thus making it susceptible to illegitimate domination. It has also been the object of many everyday practices of micropower, which means that much of human sociability is marked by interpersonal, family, community, interethnic, or collective violence, transforming fear into a powerful means of coercion and social control.

Whether within families, in dictatorships, or in genocides, living in society means being constantly exposed to the risk of violence and its negative consequences.

Although the literature on the subject highlights various ways of classifying violence, within the scope of this text, we are primarily interested in so-called 'collective violence', defined by Assis and Avanci as that

[...] identified by violent conflicts between nations and groups, rape as a weapon of war, movements of large groups of displaced people, gang wars and mass vandalism<sup>4(84)</sup>.

Violence, like environmental injustices, is linked to inequalities in the distribution of power, control of natural resources, and access to democratic participation and production. These factors contribute to heightened rivalries between social groups and rapid demographic changes. All of this demands action at various levels of existence, from the individual to the collective, from the protection of families to the promotion of social justice and democracy.

As Assis and Avanci<sup>4(89)</sup> point out, combating structural violence and promoting health means

[...] the mobilization of individuals, institutions, communities and society in general, an essential condition for a shared confrontation of responsibilities and duties when facing violence.

Therefore, we believe that analyzing environmental conflicts can give us some clues about how environmental disputes, amidst violent scenarios, have consequences for the health of populations and put pressure on the SUS.

Since the early 2000s, Brazil has approved sectoral and intersectoral policies to combat all forms of violence, some of which target sectors of society that have historically been most vulnerable and subject to the consequences related to them, involving both the health sector and the justice or social protection

system. Among these, we highlight: the National Plan on the Impacts of Violence on Health, Reduction of Violence and Accidents (PNARMAV)<sup>5</sup>, the Statute of the Child and Adolescent (ECA), the Maria da Penha Law, the Statute of the Elderly Person, national policies to combat human trafficking, comprehensive care for the black or LGBTQIAPN+ population, among others<sup>4</sup>.

In the PNARMAV, violence is defined as “actions carried out by individuals, groups, classes, nations, that cause physical, emotional, moral and/or spiritual harm to oneself or others”<sup>5(51)</sup>, and interinstitutional and intersectoral programs and actions are proposed to address it, since it is recognized as a multifactorial phenomenon with “roots in social, economic and political structures, as well as in individual consciousness”<sup>5(51)</sup>. That is, although it exerts pressure on the SUS, it cannot be seen only as an isolated event to be treated in the care network; its prevention requires the formulation of actions that also engage with educational, economic, environmental public policies, policies to combat social inequalities and even with the justice system<sup>5</sup>.

Beyond the suffering and pain it inflicts on victims, their families, and communities, violence also intertwines with the economy in other ways. Not only can development projects and social inequalities trigger violent situations, as we will see throughout this essay, but it is also estimated that violence is associated, directly or indirectly, with an economic cost of approximately 6% of the Gross Domestic Product (GDP). Furthermore, this loss goes beyond the financial dimension, since the State and society bear both the loss of work capacity and the suffering associated with premature deaths; violence ultimately leaves a trail of misery and suffering, disrupting family lives, communities, and social groups, especially when leaders and guardians of ancestral knowledge are murdered<sup>6</sup>.

On the other hand, as Minayo and Lima<sup>7</sup> point out, civil society and social movements have been fundamental in pressuring the

State for public policies that address the use of violence as a strategy of power, territorial and social control, and in interpersonal relations. After all, we live in a society built under the aegis of indigenous genocide, the enslavement of Africans and their descendants, various forms of racism and discrimination, and permeated by long periods of political authoritarianism, the most recent being the post-1964 military dictatorship, which, even after its official end, is used as a reference by far-right groups involved in recent coup attempts, such as the one that occurred from the last months of 2022 until January 8, 2023 – and let’s not omit the various massacres that occurred in the countryside and in the cities.

Therefore, for us, it is fundamental to analyze how environmental conflicts can result in processes of social organization to confront collective and everyday violence, whether through actions of self-defense and self-care by social movements, or through campaigns to defend rights by the State, as well as through permanent presence in the spaces of participation and social control established in the Brazilian State since the 1988 Constitution, especially in public policy councils, both in the SUS and in environmental management systems, among others.

To this end, cases of environmental conflicts exposed in the ‘Map of Conflicts Involving Environmental Injustice and Health in Brazil’<sup>8</sup>, involving indigenous peoples, quilombola communities, riverside dwellers, *geraizeiros*, *vazanteiros*, peasants, *fundo* and *fecho de pasto* communities, *veredeiros*, flower gatherers, and family farmers in the Cerrado biome, will be revisited. This biome is a strategic space for understanding ongoing conflicts in Brazil, since, while preserving immense socio-biodiversity, it also harbors some of the ecosystems most threatened by hegemonic economic policies, especially those associated with the frontiers of mining, agribusiness, water-based businesses, and logistical infrastructure. In this essay, the Map of Conflicts is used as a methodological and analytical basis,

as an instrument for interpreting the territory, enabling the analysis of various forms of violence affecting the peoples of the Cerrado.

In pursuit of a more comprehensive understanding of the conflicts in the Cerrado region, we followed the guidelines of Porto-Gonçalves<sup>9(46)</sup>: “It is necessary to listen to the Peoples of the Cerrado, just as Guimarães Rosa did!”. Thus, the Conflict Map seeks to contribute to amplifying the voices of those who fight for the defense and promotion of the socio-biodiversity of the Cerrado.

We therefore begin with complaints about the impacts of production processes and the absence or ineffectiveness of public policies affecting their territories; that is, how these policies determine the expropriation of natural resources that ensure the survival of these communities and the deleterious effects of these processes on their ways of life, related to the expansion of agribusiness, deforestation, land grabbing, the indiscriminate use of pesticides and chemical fertilizers, and the appropriation of water. Similarly, negative effects of public policies – which supposedly should protect or compensate for the environmental impacts of large-scale projects – are also frequent, through the creation of fully protected conservation units that overlap with traditional territories, in addition to advances in energy and logistics infrastructure.

These environmental conflicts underscore the diverse ways in which the health-disease-care relationship is associated with ecosystems and the ways of life that protect and depend on them. They highlight the various ways in which environmental degradation, pollution, environmental contamination, exposure to toxic substances – many of them endocrine disruptors, carcinogens, and teratogenic – and food and water insecurity affect the health of these communities.

For the purposes of this essay, we work with the idea of ‘paradigmatic cases’, based on the idea proposed by Agamben<sup>10</sup>, widely discussed by Malheiro and Cruz<sup>11</sup>, that certain empirical cases can have an exemplary function for

understanding a broader context, due to their capacity to represent certain characteristics and phenomena.

From this, we intend to advance on the main issues affecting the health of the affected communities, as well as identify which issues are priorities for the Cerrado today. For this analysis, we selected the following cases as paradigmatic: those of the Guarani and Kaiowá/MS, Guajajara and Awá-Guajá/MA indigenous peoples; the Kalunga Quilombola Territory/GO; the Estrondo Farm, in Formosa do Rio Preto/BA; the Araguaia-Tocantins Waterway (PA/TO); and the traditional communities in Correntina/BA.

## Material and methods

The ‘Map of Conflicts Involving Environmental Injustice and Health in Brazil’ is a research project developed at the Oswaldo Cruz Foundation (FIOCRUZ) since 2008. Over the years, we have approached and engaged in dialogue with public bodies, social movements, civil society organizations, universities, ministries, and public defenders’ offices, among others. Since 2010, almost 690 cases of environmental conflicts have been published, and at least 5 more are added or updated on the project’s webpage each month.

More than just situating each case historically and spatially, the goal of the mapping is to report, as completely as possible, the dynamics and social processes that determine the situations of environmental injustice experienced by historically discriminated and vulnerable peoples and communities in Brazil, as well as the ways in which they fight for their rights.

To construct each case, we gather information available from public sources, such as documents produced by the social agents who are protagonists or involved in the conflicts, reports produced by public institutions, legal and juridical repositories, academic works, news, reports, opinion articles and, increasingly frequently, even written or audiovisual material available on social networks. All data

is systematized and, based on a standardized structure, made available on the Map's website.

This systematization occurs through the comparison of information available in the sources, complemented by theoretical-conceptual analyses carried out by the project's research team based on an interdisciplinary framework that reflects very diverse academic trajectories and backgrounds. In each account, readers can find a summary and a longer text that, from a historical perspective, reconstructs the trajectory of struggle of each people or community affected by environmentally damaging projects, their search for alternatives and coping strategies that translate into demands for public policies, as well as any responses from the State or other agents in the conflict.

These dynamics are also subject to classifications that allow not only for a periodic 'assessment' of what is happening in the country in terms of environmental conflicts, but also, through the project's website, for filtering cases according to research interests.

It was through this tool that we sought the emblematic cases that we will reference from now on, selected from a sample of all existing conflicts in the states included in the Cerrado. Among the 303 cases resulting from it, we prioritized those that had been worked on or updated less than two years ago. This time frame reduced the sample to 38 cases. Each researcher on the project was responsible for analyzing a certain number of cases and, among them, listing the three that they considered the most emblematic. We then held a workshop to discuss which ones would be explored in this essay and reached a consensus regarding those mentioned in the introduction.

In order to ensure that we worked with a minimal lag in relation to the latest developments in each conflict, a task force was organized to update the selected individuals before the analyses of the documentary corpus were carried out.

The research underlying this essay is exempt from ethical review as it uses only publicly available information, pursuant to Law No. 12,527, of November 18, 2011<sup>12</sup>.

## Results and discussion

### **The genocide of indigenous peoples in the Cerrado: The Guarani and Kaiowá in Mato Grosso do Sul and the Guajajara and Awá-Guajá in Maranhão**

The territory of the Guarani and Kaiowá peoples is concentrated in the state of Mato Grosso do Sul, near the border with Paraguay. Since European colonization and especially after the Paraguayan War, they have been expelled and/or confined to reserves created between 1915 and 1928 by the former Indian Protection Service (SPI) – and indigenous lands assigned and expanded by the current National Foundation for Indigenous Peoples (FUNAI) since its creation in 1967. As most of their lands have been invaded by farmers, land grabbers, and agribusiness, the indigenous people live in areas unsuitable for maintaining their traditional way of life. Overpopulation has created an environment conducive to conflict and various health problems: traffic accidents, violent deaths, alcoholism, suicides, epidemics, child malnutrition, femicides, etc.

Violence is the main threat to the Guarani and Kaiowá today. According to the Pastoral Commission for the Land (CPT)<sup>13</sup>, in 2023 alone, 116 land conflicts were recorded in the state, with 43 murders; among these, 6 cases occurred among the Guarani and Kaiowá, according to the report published by the Indigenous Missionary Council (CIMI) in 2024<sup>14</sup>. The cases stem from both intra-ethnic and inter-ethnic tensions. Gunmen, at the behest of farmers and even police officers, sometimes make violence and death a constant in the lives of the indigenous people, who live with shootings, fires and expulsions.

According to Oliveira<sup>15</sup>, historically, relations between indigenous and non-indigenous people in Brazil have been marked by tensions and conflicts, albeit latent, which he calls 'interethnic frictions'. The great contradiction he

sees in the ‘interethnic system’ formed after contact between distinct societies is that none of them can return to their previous state, as a relationship of interdependence is established between them, causing relations to sometimes move towards moments that could be considered ‘armed peace’, and sometimes towards open violence. In his work, Oliveira<sup>15(3)</sup> states:

Interethnic friction, often being in a latent state, manifests itself episodically. This is because the mechanisms that led to the constitution of the interethnic system remain fully in force and operation: the diametrically opposed interests that unite the ethnic groups in contact, such as those expressed in the Indian’s dependence on the material resources made available to him by the alien, a member of the surrounding national society; and the latter’s dependence on resources made available to him by the Indian: the Indian offering raw materials — which include land and/or labor — and the ‘civilized’ offering manufactured goods.

This is what is analyzed, for example, in another emblematic case involving the Araribóia Indigenous Territory (TI), located in the state of Maranhão, the scene of intense struggles by the Guajajara and Awá-Guajá peoples in defense of their territories and rights to health and life. Historically, these peoples have faced massacres, persecution, and expulsions, with loggers being the main agents of violence. In addition to threats and assassinations, the presence of loggers brings negative impacts to the health of the Guajajara and Awá-Guajá peoples, such as alcohol and other drug abuse, sexual violence against minors, and sexually transmitted infections<sup>16</sup>. As highlighted by the Indigenous Missionary Council:

Between 2003 and 2021, the Caci platform, which maps cases systematized by the CIMI report ‘Violence against Indigenous Peoples in Brazil’, recorded 50 murders of indigenous people from the Guajajara tribe in Maranhão; of these, 21 were indigenous people from the TI Araribóia<sup>17</sup>.

## Land grabbing in the Cerrado: Communities of the Kalunga Quilombola Territory (TQK) in Goiás and the *geraizeiros* in western Bahia

The Kalunga Quilombola Territory (TQK) is located in northeastern Goiás, in the Chapada dos Veadeiros region, inhabited for over three centuries by quilombola communities formed by people who escaped slave labor in mining activities. Currently, the Kalunga Historical and Cultural Heritage Site (SHPCK) is home to approximately 1,500 families – about 7,500 quilombola people – distributed across 39 communities that experience multiple forms of violence. The most evident of these is territorial violence, marked by land grabbing, invasions, and disputes over land ownership<sup>18</sup>.

The delay in land regularization – with only 13% of the territory definitively titled – favors territorial conflicts that threaten the permanence of families on their traditional lands, causing psychological suffering, fear, chronic stress, and mental illness in the communities, especially due to abandonment and omission on the part of the State<sup>19,20</sup>. In addition, episodes of illegal deforestation compromise the quality of the soil, water, and air, directly impacting the environmental and food health of the Kalunga<sup>21</sup>.

In addition to this, there is institutional negligence and racism in health services: after the withdrawal of the Mais Médicos Program in 2018, the lack of qualified medical care in the region worsened. Consultations and examinations ceased to be carried out, especially in cases of pregnant women and the elderly, and reports of racial discrimination in care at local hospitals are recurrent, revealing how the health of the quilombola population is structurally precarious<sup>22,23</sup>.

It is noticeable that there is a history in the process of appropriation of quilombo lands in the region that is very similar to what occurs in other areas of the Cerrado. For example, in the municipality of Formosa do Rio Preto/BA, live the *geraizeiras* communities of the Rio Preto Valley. This is a territory marked

by environmental conflicts led by traditional populations, social movements and academic partners who fight against economic and political agents linked to the Cachoeira do Estrondo Condominium Agribusiness – Estrondo Farm. The project and its agents promote violations of the rights to territory, sovereignty and food security, water, and the lives of local populations.

The farm, one of the largest producers of cotton, corn, and soybeans in Brazil, has been denounced for the illegal appropriation of more than 400,000 hectares of land near the Rio Preto. According to the Permanent Peoples' Tribunal (TPP)<sup>24</sup>, the enterprise uses the strategy of land grabbing of public lands and has been promoting this for at least 45 years:

[...] expulsions, deforestation, water contamination, restriction of the right to come and go, territorial control, theft and killing of animals, physical and psychological violence, threats and attempted assassinations of leaders<sup>25</sup>.

Regarding the health risks to the population, the use of pesticides by Estrondo Farm has caused serious water contamination, promoting diseases, water insecurity, and exposure to environmental risks associated with the toxicity of the substances used, which threatens the very existence of the people of the Rio Preto Valley. Data published by the Water Quality Surveillance Information System for Human Consumption (SISAGUA) indicated the presence of approximately 20 chemical substances in the treated water of the municipality between 2018 and 2020, including alachlor, atrazine, carbendazim, benomyl, and glyphosate<sup>26</sup>. Studies by the Brazilian Association of Collective Health (ABRASCO) indicate that “chemical products, such as glyphosate, interfere with the axis of the central nervous and endocrine systems”<sup>27(100)</sup>.

The dispersion of chemical pollutants into the environment has negative impacts

on human health and ecosystems, altering the relationships that communities establish with nature, their ability to produce food, and the ecological relationships in which they participate, which translates into various illnesses, including psychological ones<sup>26</sup>. Faced with this serious scenario, the National Campaign in Defense of the Cerrado achieved the holding of a Special Session of the TPP to judge the crimes of ecocide and genocide in the biome, including those associated with the Estrondo Farm.

### **Disputes over water management in the Cerrado: The cases of the Araguaia-Tocantins Waterway and the 'death of the waters' in Correntina, Bahia**

The Tocantins-Araguaia Basin, located between the North and Central-West regions of Brazil, has historically been used for the installation of hydroelectric power plants (HPPs), such as the Cana Brava/GO, Estreito/TO, Serra da Mesa, and Tucuruí/PA hydroelectric plants. Currently, a project to expand the Araguaia-Tocantins Waterway will impact approximately 2,500 km of the hydrographic basin, aiming to facilitate the transport of commodities for export, such as corn, iron ore, soybeans, and oils, according to the National Agency for Waterway Transportation (ANTAQ). To achieve this, approximately 90 sections of the Araguaia, das Mortes, and Tocantins rivers will be altered through destructive techniques, such as implosions and dredging. One of these stretches, the Pedral do Lourenço, in Itupiranga/PA, is considered a fundamental location for food and nutritional security and the ways of life of riverside communities, quilombola communities, and indigenous peoples (Apinajé, Krahô-Kanela, and Krikati ethnic groups).

Other socio-environmental and health damages predicted with the waterway are: increased risk of erosion and silting; threats to socio-biodiversity; overlapping of fishing areas

by the waterway channel; food insecurity; impacts on the income of families and municipalities; pollution by agrochemicals or solid waste associated with economic activities; fuel oil released into the rivers during cargo handling; intensification of vessel traffic; increased prevalence of various infectious and parasitic diseases; deforestation; replacement of native flora by monocultures; loss of soil fertility; soil salinization; occupation of riverbanks by mining and prospecting; changes in lifestyle; and loss of well-being of local populations<sup>28</sup>.

Also involving water management, another paradigmatic case occurs in the municipality of Correntina, in western Bahia, as a result of intensive water extraction for agribusiness, impacting traditional populations such as riverside dwellers, *geraizeiros*, and *fundo* and *fecho de pasto* communities. In this region, agribusiness expansion projects are financed by the Japanese-Brazilian Cooperation Program for the Development of the Cerrado (Prodecer), in an area that covers 73 million hectares.

According to mapping carried out by CPT<sup>29</sup> from 2023 to 2024, approximately 300 stretches (or more than 7,000 kilometers in length) of the Carinhanha and Corrente rivers and their tributaries have dried up, including river headwaters and springs. The main cause is the use of intensive extraction methods, such as retention basins and center pivot irrigation systems, as well as the drilling of large wells, which reduce the volume of water in the river basin and neglect the recharge of aquifers.

The socio-environmental impacts associated with the exploitation of water resources mobilized communities to pressure the state of Bahia to meet the needs of the population, while simultaneously holding public demonstrations against the Igarashi Group, accusing it of drying up the Arrojado River. Beyond the process of private appropriation of water, the context of the disputes in Correntina has generated tensions and threats to communities, deforestation of native flora, destruction of infrastructure and improvements (such as

fences, corrals, and houses), shootings, and ambushes against residents at the behest of landowners. The resistance of the people of Correntina has involved more than a third of the municipality's nearly 35,000 inhabitants in demonstrations.

## **Violence against the peoples of the Cerrado and its impacts on the health of these populations**

In the case of the Guarani and Kaiowá people in Mato Grosso do Sul, the confinement of communities to small areas and overpopulation are structural factors that worsen the poor living conditions of these populations, threatened by agribusiness agents. In addition to invading traditional territories, ranchers, land grabbers, henchmen, and gunmen promote constant armed attacks, fires, and expulsions. As a result of this genocide, the effects on health are devastating: malnutrition, alcoholism, suicides, the spread of diseases and epidemics. Young people and women are also more prone to violence, being targets of murder and femicide, respectively.

The territory of the Guajajara and Awá-Guajá peoples gained visibility in light of cases of human rights violations, especially those related to illegal logging and negligence by the Brazilian state. Records of threats, assaults, and murders of indigenous people, coupled with environmental devastation, reveal a scenario of public calamity and have distinct impacts on the health of these indigenous groups. The repercussions of the case intensified with the launch of a campaign by Survival International, which presented the Awá-Guajá as the 'most threatened indigenous group in the world', placing them at imminent risk of extinction<sup>30</sup>.

The violence faced by the Kalunga communities not only violates constitutional rights but also directly impacts the collective health of the population by disrupting ties to the territory, ways of life, and social and emotional support networks. The issue

of land regularization constitutes a form of expression of the various forms of violence experienced. Approximately 45% of the territory is untitled, and this legal insecurity has led to recurring land conflicts and invasions by farmers and companies<sup>18</sup>.

Another act of great severity and impact on the physical and mental health of the victims was the discovery, in 2015, of a network exploiting Kalunga girls aged 5 to 14 sexually, subjected to slave-like labor and sexual abuse after being taken out of the community under the pretext of study and care. The crimes involved politicians and self-employed professional, and the trauma caused by this violence impacts the physical and mental health of the victims and the community, affecting trust in institutions and social cohesion<sup>23</sup>.

Other violations were felt in the provision of health services. The community was affected by the closure of the Mais Médicos Program, as mentioned. Essential assistance was interrupted, and reports of precarious care multiplied<sup>23</sup>.

With regard to the Araguaia-Tocantins Waterway expansion project, there are socio-environmental and health damages to traditional Cerrado communities that rely on the flow of rivers for their livelihood, such as riverside dwellers, fishermen, quilombola communities, and indigenous people. The violence translates into the impossibility of maintaining their ways of life, since the waterway will cause a loss of environmental quality, prevent free access to the rivers for artisanal fishing, and generate risks of food insecurity. Soils, water, and the atmosphere will be triply affected: by the increased use of pesticides in the soil, as a result of the expansion of paved agricultural projects in the production of commodities; by the increased disposal of fuel waste in the water; or by the increased emission of polluting gases into the air due to the greater flow of vessels.

In turn, the case of agribusiness expansion in Correntina is symptomatic of how riverside dwellers, traditional communities, and *fundo*

and *fecho de pasto* communities have been neglected as a result of the drying up of the region's main water sources. The scarcity of access to water constitutes violence through exclusion from access to a common good fundamental to life and, moreover, unfolds into a series of other forms of violence, such as threats, destruction of community structures, attacks, and ambushes, with consequences for the physical and psychological health of these communities and the urban populations of the municipality.

The acts of violence perpetrated by agents of the Estrondo Farm against the traditional communities of the Rio Preto Valley/BA are based on practices of land grabbing and judicial corruption, which, through territorial control, environmental devastation, water contamination, and the restriction of the community's access to basic public policies, promote the expropriation of families' territories and threaten their survival. Collective violence is widespread: hired gunmen, the formation of militias formalized as security companies, and the complicity of state agencies. Reports of this nature have generated a cycle of violence in the region: community leaders have been arbitrarily arrested, some tortured; homes have been raided without warrants, in addition to the killing of animals, seizure and damage to community equipment, and attempted murders<sup>24</sup>. This context has had drastic consequences for the physical and mental health of the traditional communities.

It can be observed, from these cases, that violence manifests itself in various dimensions in the still preserved territories of the Cerrado and its traditional populations, which, consequently, are the priority targets of the processes of economic expansion and violence in this biome. According to Aguilar, cited by Rougemont<sup>31(252)</sup>:

[...] capitalism constantly strives to break down political forms that outline other types of relationships or social bonds that are not based on values such as individualism or that

are outside, partially or totally, the logic of commodification, private appropriation, and profit production. Thus, it delegitimizes the meanings of the bonds and relationships connected to policies of defense and reproduction of life and the common good, of collective articulations, always replacing them with sterile regimes of individuality and property.

For Aguilar, Navarro and Linsalata, also mentioned by Rougemont<sup>31</sup>, community is the essential attribute of life, as it is the core that provides the conditions for reproduction, and “the common is the expression attributed to the set of practices guided by the material and immaterial reproduction of social life”<sup>31(251)</sup>. However, the processes of dispossession and exploitation result in the impossibility of realizing life, in a broader sense, and community life, in a more specific sense. By dispossessing the common as a way of life, collective

and community struggles around it are also dispossessed.

Given these findings and in an attempt to group together most of the forms of violence to which the peoples of the Cerrado are subjected, even without intending to exhaust the subject, we carried out the synthesis exercise based on *table 1* below, demonstrating the different orders of manifestations of violence that appear in the paradigmatic cases analyzed so far. For its elaboration, we used four priority axes for systematizing the forms of violence, the first three being based on and adapted from Rougemont<sup>31</sup>, and the fourth proposed for the purposes of this essay. They are: 1) Violence and violations of a socio-environmental and community nature; 2) Violence and violations of a psychological and physical nature; 3) Violence and violations of a state, institutional, corporate and/or business nature; and 4) Violence and violations of a symbolic nature.

Table 1. Typology and examples of violence identified in the analyzed territories

<b>Violence and violations of a socio-environmental and community nature</b>	<b>Violence and violations of a psychological and physical nature</b>	<b>Violence and violations of institutional, corporate, and/or business state order</b>	<b>Violence and violations of symbolic order</b>
Deforestation, burning, and arson in villages, reclaimed lands, forests, farms, pastures, and plantations.	Threat, intimidation, persecution, coercion and constraint.	Criminalization of leaders, struggles, and social movements.	Disregard/denial of traditional knowledge, rituals, and customs in public policies.
Assassination of animals.	Enticement and co-opting of community leaders and members.	Collusion/connivance of federal, state, and municipal officials with private interests.	Restriction of traditional forms of care by healthcare professionals.
Poisoning and pollution of water, air and soil.	Physical and psychological aggression.	Recruitment of police officers and hiring of security guards, thugs, and private militias.	Encouraging prejudice and various forms of discrimination.
Restriction or deprivation of access to natural or extractive resources.	Rape, harassment, sexual violence, pedophilia, and misogyny.	Land grabbing, document forgery, and institutional corruption.	Encouraging prejudice and various forms of discrimination.

Source: Own elaboration, adapted from Rougemont<sup>31</sup>.

## Final considerations

Based on the paradigmatic cases listed here, and using the ‘Map of Conflicts Involving Environmental Injustice and Health in Brazil’ as a reference, this study sought to examine how these cases impact the health of traditional peoples and communities in the Cerrado, using the dimension of violence and violations of rights of various kinds as an analytical key. To this end, a systematization of cases was proposed that highlight a set of problems concerning the biome, such as the genocide of indigenous peoples, land grabbing, and disputes involving the appropriation and management of water resources.

In the end, the systematization of these issues was proposed, based on the construction of a framework containing the main orders and expressions of violence identified in the contexts of communities and their environmental conflicts. Based on the discussions in this essay, some syntheses can be deduced that help us identify the main problems of the Cerrado today.

First, we consider that today, in the Cerrado, violence has been used as a strategy to render the traditional way of life and forms of resistance in the territories unviable. The Cerrado has been the scene of persecution, threats, and extermination of indigenous peoples<sup>32</sup> and traditional communities, such as *geraizeiros*, quilombolas, *fundo* and *fecho de pasto*, fishermen, and countless others. The ecocide of the Cerrado biome, therefore, is associated with the genocide of people and communities, using the most varied forms of violence, in its socio-environmental, community, psychological, physical, institutional, corporate, business, and symbolic manifestations.

Furthermore, the Cerrado has been appropriated by the State and Capital as a privileged space for the production and installation of logistical infrastructure, including energy generation, to position the country as one of the largest global exporters of agricultural and mineral commodities (in addition to the

water incorporated in these goods), resulting in the deepening of the expropriation of its peoples and the destruction of rivers and water sources.

It is also clear from the case analysis that the biome is today a ‘central pivot’ in the processes of private appropriation of water and the production of a ‘Geography of thirst’ – as rightly pointed out by the CPT. Despite this, in Correntina and Western Bahia, resistance and popular organization have been fundamental in the struggle for access to water as a common good.

Although we have not analyzed the resistance strategies, since this will be the subject of future work, there are some examples that deserve to be highlighted here, even if briefly. Always considering the paradigmatic cases worked on in this essay, although they are present in many others throughout Brazil, we emphasize the search for partnerships with other peoples, communities and movements involved in similar struggles, such as the riverside dwellers, fishermen and those affected by dams, in the case of the Araguaia-Tocantins Waterway, or the riverside dwellers, *fundo* and *fecho de pasto* communities and the *geraizeiros* in Correntina, Bahia:

1. The identification and establishment of alliances with civil society institutions, such as the CPT, CIMI, the Association of Lawyers for Rural Workers (AATR), TPP, as well as universities, non-governmental organizations, and national and international networks focused on defending human rights and the environment;
2. The call for national public bodies (starting with federal and state ministries and public defenders’ offices) and international bodies (including agencies and bodies of the United Nations, such as the International Labour Organization – ILO) to denounce, propose and strengthen actions in defense of their rights;

3. The creation of their own organizations, associations and collectives, such as the Guajajara's 'Guardians of the Forest', to defend them, or the Quilombo Kalunga Association (AQK), to legitimately represent them; and

4. The use of culture, through videos, documentaries, campaigns, websites, caravans, among others, to publicize their complaints and seek solidarity, support, and partnerships. In this field, it is worth highlighting, as an example, the participation of the urban population of Correntina in the joint struggle with riverside dwellers, *geraizeiros*, and *fundo* and *fecho de pasto* communities, for the common right to water.

Finally, we analyzed that, although all socioeconomic and environmental processes have serious repercussions on the health situation and needs of the populations involved in situations of environmental injustice in the Cerrado, there are still deficiencies and/or difficulties in accessing public health policies that, added to the absence of public actions that address the specificities of the territories in conflict, deepen the vulnerability of the social groups analyzed. This consideration points to the need for structural measures that favor greater access to health services, as well as the participation and social control of these groups throughout the implementation

cycle of health promotion actions, also indicating the need for critical environmental and health education programs within the SUS, developed from intercultural dialogue with the experiences and knowledge of traditional peoples and communities.

With this in mind, the aim is to contribute to the field of public health, both in its methodological sense, insofar as the Conflict Map presents itself as a tool for consultation and identification of the main aggravating factors to health – highlighting a pattern of impacts and violence that affect the peoples of the Cerrado – and in its theoretical and political sense, given that this exercise can broaden the field of discussion of the causal links between the aggravation of situations of violence and violations of rights and the aggravation of health problems and, consequently, the overload or generation of inefficiencies and ineffectivenesses in the SUS (Brazilian Unified Health System) care network in this biome.

## Authorship contributions

Rocha DF (0000-0002-7909-2125)\*, Rougemont L (0000-0002-5939-8573)\*, Kassiadou A (0000-0002-2970-1164)\*, Pacheco T (0009-0002-4826-4358)\* and Viana GB (0000-0002-3990-2250)\* also contributed to the preparation of the manuscript. ■

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## References

1. Weber M. Política como vocação e ofício. Petrópolis: Vozes; 2021. 120 p.
2. Krenak A. Futuro Ancestral. São Paulo: Cia das Letras; 2022. 128 p.
3. Moore JW, organizador. Antropoceno ou Capitaloceno? Natureza, história e a crise do capitalismo. São Paulo: Elefante; 2022. 344 p.
4. Assis SG, Avanci JQ. É possível prevenir a violência? Refletindo sobre risco, proteção, prevenção e promo-

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- ção da saúde. In: Njaine K, Assis SG, Constantino P, et al., editores. Bases conceituais e históricas da violência. Rio de Janeiro: Fiocruz; Ensp; 2020. p. 77-105. DOI: <https://doi.org/10.7476/9786557080948>
5. Ministério da Saúde (BR), Gabinete do Ministro. Portaria de Consolidação nº 2, de 28 de setembro de 2017. Consolidação das normas sobre as políticas nacionais de saúde do Sistema Único de Saúde [Internet]. Diário Oficial da União, Brasília, DF. 2017 out 3 [acesso em 2025 abr 22]; Edição 190, suplemento; Seção I:61-192. Disponível em: <https://bit.ly/3XgTRmk>
  6. Minayo MCS, Souza ER, Assis SG. É preciso retomar com força a Política Nacional de Redução da Morbimortalidade por Acidentes e Violência (PNRMAV). *Ciênc saúde coletiva*. 2023;28:1598-98. DOI: <https://doi.org/10.1590/1413-81232023286.02822023>
  7. Minayo MCS, Lima CA. Processo de formulação e ética de ação da Política Nacional de Redução da Morbimortalidade por Acidentes e Violências. In: Njaine K, Assis SG, Constantino P, et al., editores. Bases conceituais e históricas da violência. Rio de Janeiro: Fiocruz; Ensp; 2020. p. 43-56. DOI: <https://doi.org/10.7476/9786557080948>
  8. Fundação Oswaldo Cruz. Mapa de conflitos envolvendo injustiça ambiental e saúde no Brasil [Internet]. Rio de Janeiro: Fiocruz; 2025 [acesso em 2025 abr 22]. Disponível em: <https://mapadeconflitos.ensp.fiocruz.br/>
  9. Porto-Gonçalves CW. Dos cerrados e de suas riquezas: de saberes vernaculares e de conhecimento científico [Internet]. In: Aguiar D, Santos VP, organizadoras. Rio de Janeiro: Fase; Goiânia: CPT; 2019 [acesso em 2025 mar 26]. 48 p. Disponível em: <https://bit.ly/3OMWFBO>
  10. Agamben G. Estado de exceção: Homo sacer II. São Paulo: Boitempo; 2004. 144 p.
  11. Malheiro BC, Cruz VC. Geografias dos Grandes Projetos de Des-envolvimento: Territorialização de exceção e governo bio/necropolítico do território. *GEOgraphia*. 2019;21(46):18-31. DOI: <https://doi.org/10.22409/GEOgraphia2019.v21i46.a30317>
  12. Presidência da República (BR). Lei nº 12.527, de 18 de novembro de 2011. Regula o acesso a informações previsto no inciso XXXIII do art. 5º, no inciso II do § 3º do art. 37 e no § 2º do art. 216 da Constituição Federal; altera a Lei nº 8.112, de 11 de dezembro de 1990; revoga a Lei nº 11.111, de 5 de maio de 2005, e dispositivos da Lei nº 8.159, de 8 de janeiro de 1991; e dá outras providências [Internet]. Diário Oficial da União, Brasília, DF. 2011 nov 18 [acesso em 2025 abr 20]; Edição 221-A; Seção I:1. Disponível em: <https://bit.ly/3XTIdxH>
  13. Comissão Pastoral da Terra. Conflitos no campo Brasil 2023 [Internet]. Goiânia: CPT Nacional; 2024 [acesso em 2025 abr 20]. 214 p. Disponível em: <https://shre.ink/MTXA>
  14. Conselho Indigenista Missionário. Relatório Violência Contra os Povos Indígenas no Brasil – Dados de 2023 [Internet]. 21ª ed. Brasília, DF: Conselho Indigenista Missionário; 2024 [acesso em 2025 abr 20]. 252 p. Disponível em: <https://shre.ink/MTXV>
  15. Oliveira RC. Povos indígenas e mudança sócio-cultural na Amazônia. In: Oliveira RC. A Sociologia do Brasil Indígena. Rio de Janeiro; Brasília, DF: Tempo Brasileiro; Ed. UnB; 1978. p. 173-196.
  16. Conselho Nacional de Justiça (BR). Terra Indígena Araribóia recebe ações de regularização fundiária e de cidadania. Agência CNJ de Notícias [Internet]. 2023 mar 13 [acesso em 2025 abr 21]; Notícias do Judiciário. Disponível em: <https://shre.ink/MkQb>
  17. Miotto T. Violência na TI Araribóia: dois jovens Guajajara são baleados e Guardiões encontram corpo de Awá isolado. Conselho Indigenista Missionário [Internet]. 2023 jan 10 [acesso em 2025 mar 26]. Disponível em: <https://shre.ink/MG1D>
  18. Fundação Oswaldo Cruz. Comunidade Kalunga: ainda em busca da titulação plena e da reconquista de suas terras [Internet]. In: Porto MFS, Rocha DF, Pacheco T, coordenadores. Mapa de Conflitos Envolvendo Injustiça Ambiental e Saúde no Brasil. [Rio de Janeiro]: Fiocruz; 2023 [acesso em 2025 maio 7]. Disponível em: <https://shre.ink/ewKf>

19. Pina R. Encurralados pela grilagem. Agência Pública [Internet]. 2021 nov 11 [acesso em 2025 maio 7]; Reportagem. Disponível em: <https://bit.ly/3WCKELp>
20. Procuradoria Geral da República (BR). MPF e parceiros promovem oficina sobre a Plataforma de Territórios Tradicionais em comunidade quilombola de Goiás. Combate Racismo Ambiental [Internet]. 2022 maio 24 [acesso em 2025 abr 22]. Disponível em: <https://bit.ly/3XTgxaZ>
21. Ministério Público Federal (BR). MPF apura desmatamento ilegal em território quilombola Kalunga, no município de Cavalcante, GO. Combate Racismo Ambiental [Internet]. 2020 jun 2020 [acesso em 2025 maio 22]. Disponível em: <https://bit.ly/3kTbKaS>
22. Campos S. Comunidades Kalungas vizinhas a Vão de Almas recusaram projeto de Alex Atala para baulha do Cerrado. De Olho nos Ruralistas [Internet]. 2019 jul 19 [acesso em 2025 abr 22]. Disponível em: <https://bit.ly/3DrbDto>
23. Procuradoria Geral da República (BR). MPF recebe relatório sobre exploração sexual de meninas Kalunga. Combate Racismo Ambiental [Internet]. 2015 jul 7 [acesso em 2025 maio 7]. Disponível em: <https://bit.ly/3JizgIx>
24. Tribunal Permanente dos Povos. Série Eco-genocídio no Cerrado. Comunidades tradicionais geraizeiras do Vale do Rio Preto [Internet]. Bolonha: TPP; 2023 [acesso em 2025 mar 26]. 23 p. Disponível em: <https://shre.ink/MGUP>
25. Mídia Ninja. Tribunal do Cerrado aproxima-se da audiência final e do veredito do júri. Mídia Ninja [Internet]. 2022 jul 8 [acesso em 2025 abr 21]; Opinião. Disponível em: <https://bit.ly/43Nwm80>
26. Repórter Brasil. Descubra o que tem na água de Formosa do Rio Preto (BA). Repórter Brasil [Internet]. 2021 [acesso em 2025 abr 21]. Disponível em: <https://shre.ink/MQMR>
27. Augusto LGS, Kuhn MF, Lucchese G, et al., organizadores. Dossiê danos dos agrotóxicos na saúde reprodutiva: conhecer e agir em defesa da vida [Internet]. Rio de Janeiro: Edição dos Autores; 2024 [acesso em 2025 mar 26]. 396 p. Disponível em: <https://shre.ink/M99G>
28. Ayres J. Caravana em defesa do rio Tocantins denuncia impactos de hidrovia no Pará. Combate Racismo Ambiental [Internet]. 2022 jan 31 [acesso em 2025 abr 20]. Disponível em: <https://shre.ink/2Ils>
29. Comissão Pastoral da Terra. A morte das águas no Oeste da Bahia. Comissão Pastoral da Terra [Internet]. 2024 set 3 [acesso em 2025 abr 20]. Disponível em: <https://shre.ink/M9UB>
30. Survival Brasil. Tribo mais ameaçada do mundo alerta para risco com caça e exige ajuda 'urgente'. Survival Brasil [Internet]. 2012 set 25 [acesso em 2025 mar 26]; Notícias. Disponível em: <https://shre.ink/M9HY>
31. Rougemont LS. À margem da voz: repensar a fronteira a partir da violência política e dos genocídios de gênero na Amazônia. Marília: Lutas Anticapital; 2021.
32. Casa Ninja Amazônia. Extermínio: 539 indígenas Guarani Kaiowá foram assassinados em 16 anos. Casa Ninja Amazônia [Internet]. 2021 out 21 [acesso em 2025 abr 20]. Disponível em: <https://bit.ly/3KDKsOi>

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