

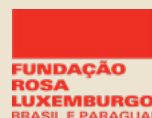
# In the name of the climate:

A critical mapping of energy transition  
and the financialization of nature

## Executive summary



Programa de Pós-Graduação de  
Ciências Sociais em Desenvolvimento,  
Agricultura e Sociedade | UFRRJ



**PART I**

# **A critical analysis of energy transition in Brazil:**

Wind power,  
green hydrogen and  
strategic minerals



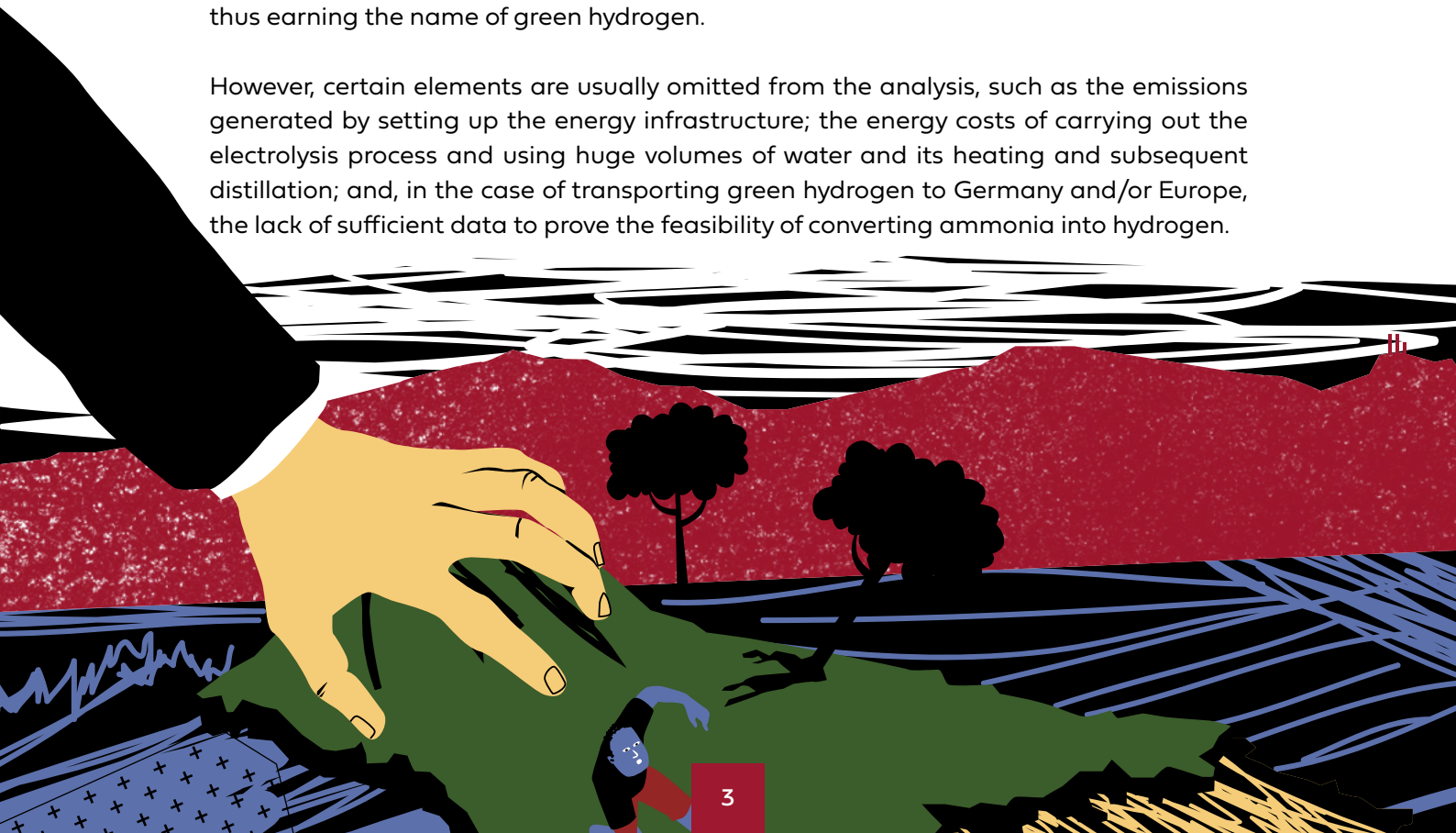
## Introduction

Analyzing the main projects and policies involving energy transition in Brazil and their implications, was the central objective of this thematic axis of the research “In the name of climate: critical mapping of energy transition and financialization of nature.” To this end, we discuss the geopolitics of energy and green hydrogen, with an emphasis on European policy in general and more specifically Germany’s strategy towards Brazilian projects and policies; onshore and offshore wind power in the Brazilian states of Ceará and Rio Grande do Sul; and the relationship between energy transition and mining. The study was based on research using official, bibliographic and documentary information to quantitatively and qualitatively map out data on projects underway in the country, corporation and social actors involved, territories affected, and the main governmental policies and measures. The research also mapped federal and state government legislation and regulations on the subject.

### **Geopolitics of Energy: green hydrogen in Germany’s current geostrategy**

With the deepening energy crisis in Europe and the need for the region to free itself from its dependence on natural gas from Russia, in 2022 the European Commission launched the REPowerEU Plan, a package of policies aimed at accelerating energy transition and adopting renewable energies in the bloc by 2030. As a reaction to changes in the international balance of power, the decarbonization of the energy system and the green economy are central elements, including in regards to European security policy. To face this challenge and meet the decarbonization targets, Germany is relying on its chemical industry to make the big bet: hydrogen. To secure its status as a “green alternative”, electrolysis must be carried out using electricity from renewable sources, such as wind plants, thus earning the name of green hydrogen.

However, certain elements are usually omitted from the analysis, such as the emissions generated by setting up the energy infrastructure; the energy costs of carrying out the electrolysis process and using huge volumes of water and its heating and subsequent distillation; and, in the case of transporting green hydrogen to Germany and/or Europe, the lack of sufficient data to prove the feasibility of converting ammonia into hydrogen.



It is important to note that half of Germany's demand for hydrogen, 10 million tons, will have to be imported. Faced with this scenario, the country's climate diplomacy is advancing and Brazil is entering the equation due to its climate and geography, conducive to the generation of renewable energy, with low production costs compared to the world average and an abundance of water. As a result, green hydrogen hubs have been created, mainly in the ports of Pecém (CE), Suape (PE), Açú (RJ) and Rio Grande (RS). In the case of Ceará, the green hydrogen hub already has a partnership with the port of Rotterdam, in the Netherlands, as well as memorandums of understanding with companies including the German Linde, the Dutch Transhydrogen Alliance and the French Qair and Total Eren.

Despite these advances, Brazil lacks a federal regulatory framework for green hydrogen, considered a major obstacle for private investors. Among the key players involved in this debate, according to Bill 1.878, that created the National Green Hydrogen Policy (PNH2), are the companies Vale, Porto do Açú, AES Brasil, EDP Raízen, Huawei, Nova Engevix, Quinto Energy, Thyssenkrupp and Unigel.

An analysis of the progress of the bills, both for hydrogen and for related offshore wind power generation, showed that the institutional debate is guided by private interests, with strong interference from German agencies and institutions. The only moment in the current congressional debate that made room for people not linked to international capital and from the affected territories to participate, was the public hearing on the socio-environmental impacts of building wind plants in 2023, in the Commission on Human Rights, Minorities and Racial Equality of the Chamber of Deputies.

## Wind Energy in Brazil: the cases of Ceará and Rio Grande do Sul

While in 2012 Brazil ranked 15th in the world in regards to installed capacity of wind power, by 2023 the country was already in 6th place, with more than 27GW. There are more than 10,000 wind turbines in operation; 90% of which are concentrated in the Northeast. Among the states with onshore wind plants already in operation are Bahia (286 projects), Piauí (109 projects), Ceará (100 projects), Rio Grande do Norte (261 projects) and Rio Grande do Sul (81 projects). The tendency is for the number of projects to double in the coming years. Data for 2023 from the National Electric Energy Agency (ANEEL) shows that there are a further 5.7 GW of power plants under construction in seven different states, totaling 145 projects, and a further 20.3 GW of power plants that have already been contracted by ANEEL but have yet to start construction, totaling a further 491 projects.

Data from the same agency on the seven states with onshore wind plants under construction, shows Bahia in the lead with 68 projects, followed by Rio Grande do Norte with and Piauí with 17. In terms of projects awaiting construction, Bahia and Rio Grande do Norte remain in first place, with 207 and 83 projects respectively. However, Ceará comes next, with 69 onshore

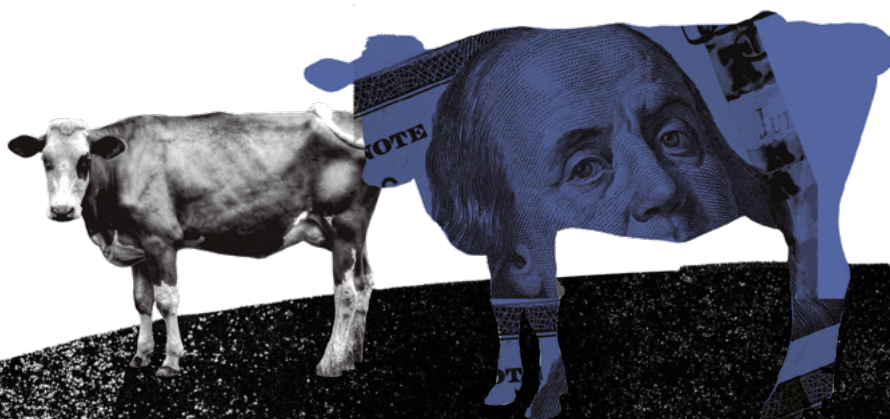
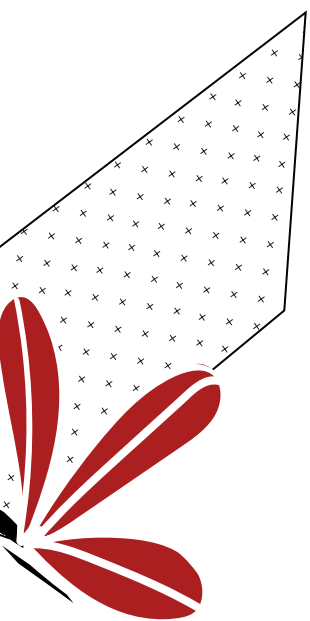
projects awaiting to start construction. In addition to the mainland plants, there are also plans for offshore projects which, taken together, put Brazil in a prominent position internationally in terms of generation from this source of energy

As for the expansion of offshore wind plants, most of the new projects are related to the production of green hydrogen. In July 2023, there were 78 projects under environmental licensing throughout Brazil, 24 of them in Rio Grande do Sul and 23 in Ceará. Although Brazil lacks specific legislation for this activity, Bill 11.247/2018, known as the “legal framework for offshore wind plants”, is already being processed in the Chamber of Deputies. This regulation meets the interests of governments and corporations jointly seeking to expand the sector.

Until July 2023, Ceará had the most advanced project in Brazil in terms of environmental licensing: the Caucaia offshore power plant, expected to be installed in the municipality of the same name, owned by Italian company BI Energia. However, the project had its preliminary license rejected by the federal environmental agency due to inconsistencies in the Environmental Impact Study/Environmental Impact Report (EIA/RIMA, in Portuguese).

In the case of onshore power plants, there are examples of environmental legislation becoming more flexible in order to allow for the installation of renewable energy projects. Among them is the simplification of the environmental licensing procedure for onshore wind projects in Ceará, such as National Environmental Council, Conama Resolution 462/2014, which classifies onshore wind power generation projects as having low polluting potential, waiving the need for an EIA/RIMA.

The implementation of wind plants in the coastal zone of Ceará has significantly altered the ecological and morphological characteristics of the region's ecosystems, resulting in negative impacts on the environment. In addition, the blocking of access to dunes, mangroves and beaches, due to the privatization of public areas by the wind plants, results in rights violations and impacts the cultural and economic activities of the communities.



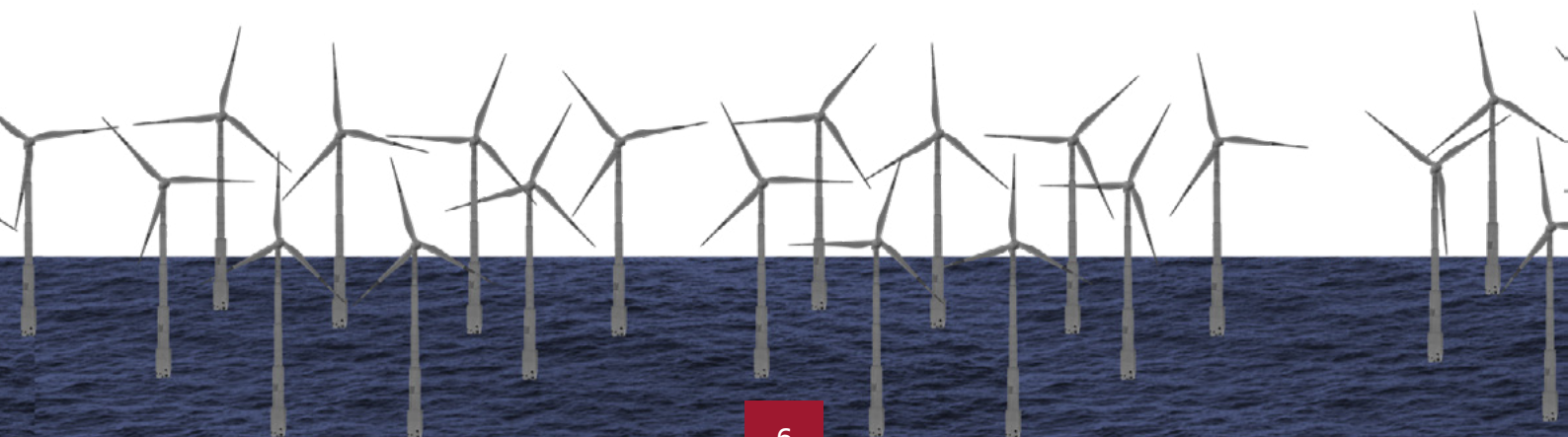
Artisanal fishing is also threatened by the possible installation of offshore wind farms on the coasts of the far west (Camocim), west (Jangada and Asa Branca projects), Fortaleza and the metropolitan region (Caucaia Project). The estimate is to set up 23 overlapping plants in Ceará, with almost 4,000 wind turbines, plus cables and supporting port infrastructure. There have already been reports of environmental racism in the communities of Cumbe, in Aracati, and Caetanos de Cima, in Amontada, amongst others.

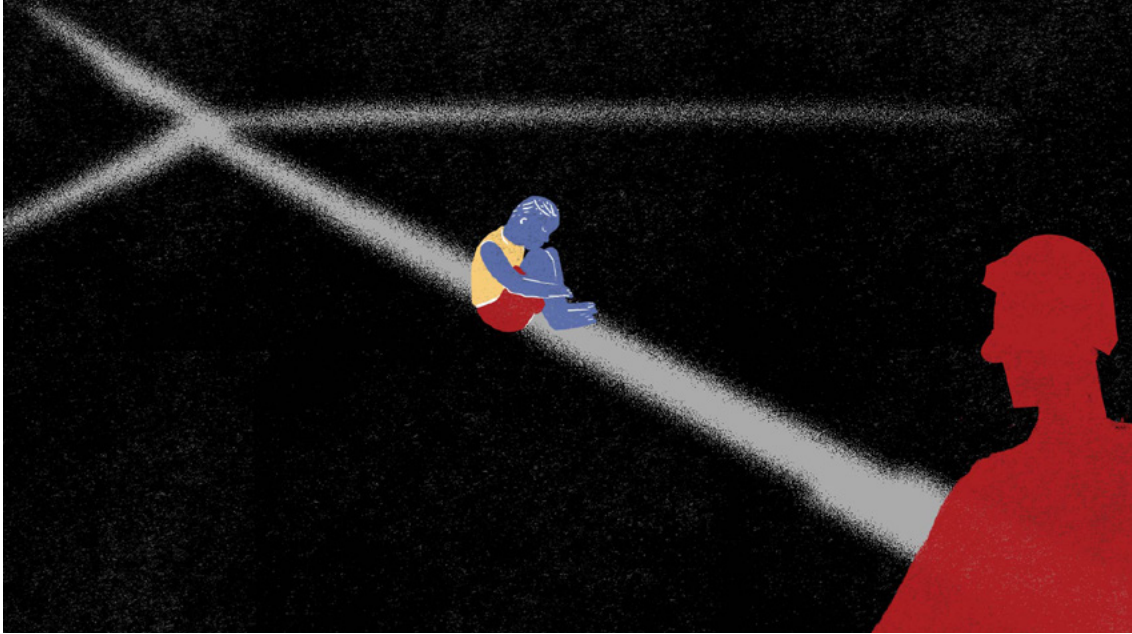
Looking at the business sector in the state, there is a significant concentration of assets and investments in a small number of economic groups. These include Argentina's Energimp, France's Engie, the US's Ibitu Energia and China's State Grid Corporation. In the case of the offshore projects under analysis in Ceará, we can find, for example, BI Energia (Italy), Neoenergia (Spain), Shell (UK), Qair (France), Total (France), Equinor (Norway), Shizen (Japan) and H2 Green Power (Germany). Another important company in the state is Germany's Wobben Windpower, a subsidiary of the Enercon group, which was responsible for the first large-scale wind plant in the state, on Taíba beach, on the west coast of Ceará.

With regards to finance, the largest share of loans have been made by the National Bank for Economic and Social Development (BNDES, in Portuguese). From April 2020 to February 2022, BNDES financed more than R\$3 billion in projects to build wind plants in the Brazilian Northeast. Furthermore, in 2023 the federal government announced the New Growth Acceleration Program (PAC, in Portuguese), in which R\$22 billion is earmarked for the "Energy Generation" sub-axis. Ten onshore wind plants are planned for Ceará in the municipality of Icapuí.

Accompanying Ceará in this expansion of offshore wind plants, is Rio Grande do Sul (RS), one of the five states with the highest level of wind power generation in 2022, accounting for 76% of the system (5.37 TWh). And, like Ceará, it is also the scenario of conflicts and rights violations. Currently, 81 wind plants are in operation, 47 of which have not started construction and three are under construction.

Rio Grande do Sul already has laws and regulations in place, such as Law No. 14.014/2012, which provides government support for new investments in this sector, and Decree No. 57.173/2023, which "Institutes the Program for the Development of the Green Hydrogen Production Chain in the State of Rio Grande do Sul - H2V-RS". In addition, the state government has nine memorandums of understanding with companies to develop green hydrogen projects: White Martins; Enerfin; Ocean Winds; Neoenergia; CMPC; Equinor-Portos RS; CPFL Energia; Green EN.IT; Ventos do Atlântico Energia Eólica S. A.

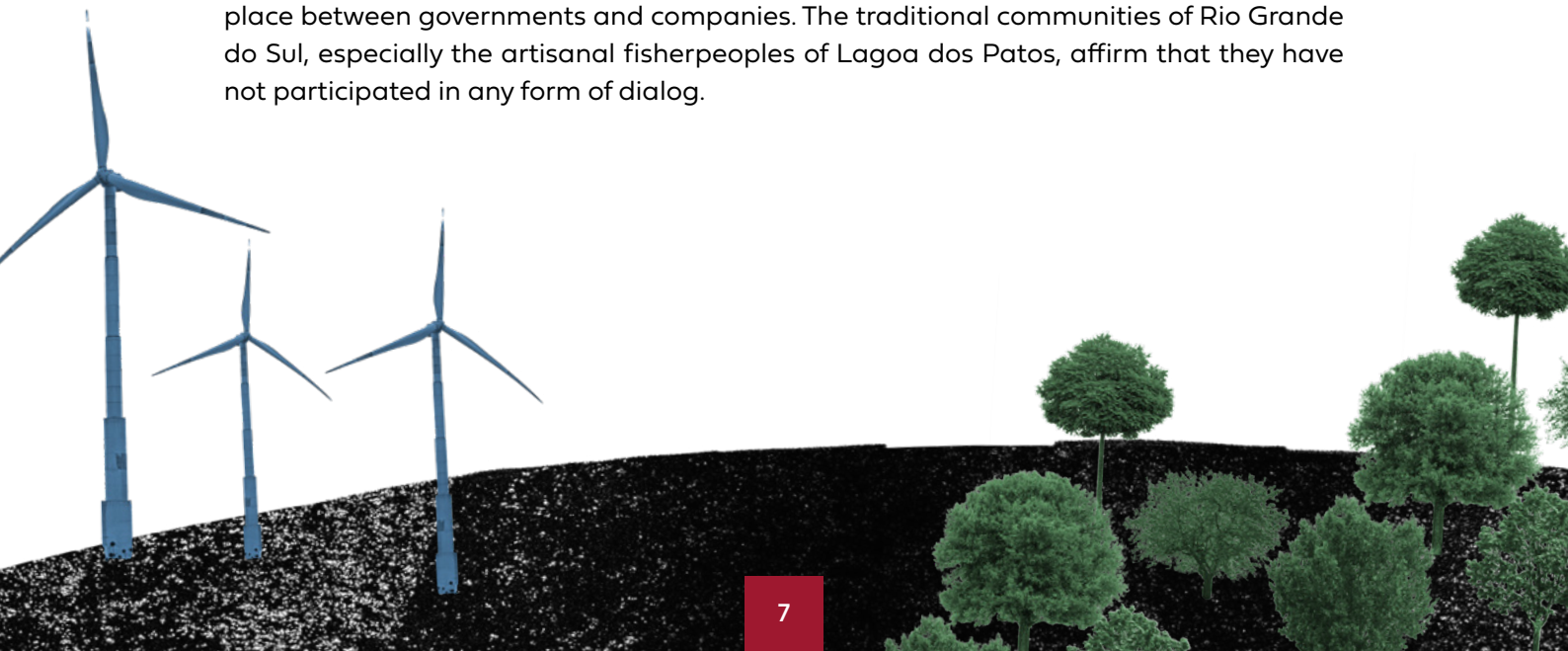




Among the projects undergoing state licensing processes is that of Companhia de Geração e Transmissão de Energia Elétrica do Sul do Brasil (CGCGT Eletrosul), which plans to inaugurate the Coxilha Negra Wind Plant in Santana do Livramento in 2024, spread over 8,644 hectares with a capacity of 302.4 MW. It is worth mentioning that Eletrosul controls seven wind power plants (UEE) in Santana do Livramento, which began operating between 2011 and 2015. Also on the list are Atlantic CGN (China), Aura Mangueira VI; Enerplan Pontal (Grupo Oleoplan and Pontal Energia), and Honda Energy's CGE Xangri-Lá. In addition to the projects of the companies mentioned, between 2019 and 2023 the state government granted 22 preliminary licenses and five installation licenses to other wind energy companies.

But these are only the onshore projects. In the case of offshore power plants, by the end of 2023 Rio Grande do Sul was in the lead in terms of the number of licensing processes in the federal agency: 24. The capital of the companies varies, but European, Chinese and Australian companies predominate.

Dialogue on the implementation of onshore wind plants licensed by the state and projects on the coast of Rio Grande do Sul in the process of federal licensing, has only taken place between governments and companies. The traditional communities of Rio Grande do Sul, especially the artisanal fisherpeoples of Lagoa dos Patos, affirm that they have not participated in any form of dialog.



## Mining and Energy Transition: the cases of lithium and aluminum

The “transition to a low-carbon energy matrix” results in an increase in international demand for minerals, as solar photovoltaic plants, wind farms and electric vehicles, which require more mineral resources in their composition than other installations and vehicles, are increasingly produced. This implies an upsurge in mining-related conflicts around the world, especially in peripheral countries with a primary-export economy dependent on international markets, as is the case in Brazil.

These specific minerals associated with energy transition are often referred to as critical or strategic minerals. Bringing these notions closer to the Brazilian reality, it seems that the concept of critical minerals refers to minerals that are important for the ongoing process of “decarbonization”, aimed at “solving” the climate and environmental crises without changing the logic of the markets and extractive companies. They are important for the so-called energy transition. Strategic minerals, broadly defined in Decree 10,657/2021, refer to mineral that are fundamental to the Brazilian economy, with growing demand and importance in the country’s trade balance. This definition legitimizes extractive capitalism in the context of the green agenda.

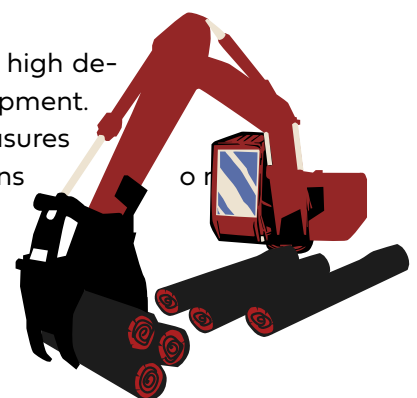
In recent decades, the mining sector has intensified its activities in Brazil and consolidated a process of expanding its activities. This expansion was accompanied by the amendment of the Mineral Code in 2022 and the arbitrary classification of the sector as an essential activity during the Covid-19 pandemic.

At the same time, the territorial effects of this expansion represent new and complex local and regional spatial dynamics. All indications are that investments will have to increase considerably to meet the demand for minerals critical to transition technologies, such as copper, aluminum, nickel and lithium.

Mining companies facing a crisis of legitimacy and reputation are having a field day with this, taking advantage of the scenario to co-opt the climate crisis discourse and defend what they call “sustainable mining”. As such, a rhetoric of mining expansion as the only way out of the climate crisis is established.

Two minerals stand out due to their existence in Brazil and their economic and technological importance: lithium and bauxite, the raw material for aluminum. Lithium, due to its importance in the manufacture of lithium-ion batteries, used in electric vehicles and renewable energy storage systems; and aluminum, a metal derived from bauxite, already widely used by various types of industries and, which, in order to meet the targets of the energy transition, should be highly demanded for the industrial production of electric cars, solar panels and wind energy towers.

Between 2017 and 2022, the demand for lithium tripled, mainly due to high demand from the energy sector to manufacture energy storage equipment. Given this scenario, in recent years Brazil has taken legislative measures to allow lithium mining to advance, such as the removal of restrictions





lithium exports and Bill 1.992/2020, to create the Lithium Mining and Industrial Hub in the Jequitinhonha and Mucuri Valleys, still in progress. In addition, there is the “Lithium Valley” initiative, aimed to attract foreign investment.

With incentives, legislative changes and increased demand, Brazil reached fifth place in the world ranking in 2020, with production of 1.4 kt of lithium carbonate equivalent (LCE), according to data from the U. S. Geological Survey.

Data from the Sigmine platform, as of September 10, 2023, indicated 1,371 mining rights granted for lithium from research requests between 2019 and 2023, out of a total of 2,930 processes since 1973. The other 1,559 processes, out of a total of 2,930, are mostly research authorizations (1,524). Among the states with lithium potential in the country, Minas Gerais stood out in terms of the number of research applications, with 679 in the same period. In Ceará, the number of research applications started in 2022, with 434. Overall, Minas Gerais is the state with the highest number of mining rights granted for lithium (1,593), and so far has the largest deposit of pegmatites in the country. Ceará is in second place, followed by Bahia, Rio Grande do Norte and Paraíba.

With Dutch, Australian and Canadian capital, the main companies operating in lithium prospecting or mining in Brazil are: Sigma Lithium, Companhia Brasileira de Lítio, AMG Lithium Brasil, Spark Energy Minerals Inc, Lithium Ionic MGLIT (subsidiary), Atlas Lithium, Latin Resources Limited (ASX: LRS), Foxfire Metals Ltda. Among these, Sigma Lithium stands out.

Operating in the Jequitinhonha Valley, Sigma claims to produce triple-zero green lithium: zero carbon, zero waste, zero chemicals. While not questioning the exploration of so called “natural resources”, it uses the sustainable discourse to advance the exploitation of minerals. As the political dimension of this process is undermined and no room is left for dialogue due to the notion that there is no other solution, the affected territories are now tasked with “saving the planet” from the climate crisis and enabling the energy transition, in Sigma’s case, by supplying lithium for electric cars.

Although the company’s discourse was intended to demonstrate environmental concern, it spared no effort in mobilizing the Chapada do Lagoão Environmental Protection Area (APA) Council to authorize research in the territory, which has more than 130 water springs, 399 families, most of them farmers, and among them traditional communities. The authorization to carry out the mineral survey was annulled after the mobilization of political leaders and the State Public Prosecutor’s Office. Furthermore, although the company claims that the quilombola and indigenous communities are not in the area of direct influence, residents report that the impacts of mineral exploration are already be-



ing felt in their territories. Just as serious as these problems is the fact that the first public hearing was held only two years after the plant began its operations.

According to the Ministry of Mines and Energy, aluminum is one of the major drivers of Brazilian mining and an example of how metals and minerals that are already widely used in industry will be of great importance in the energy transition. This metallic product is derived from the process of refining and reducing bauxite.

Aluminum has proved fundamental to the transition to a “decarbonized” future, since it is a metal widely used in the manufacture of different products and equipment for low-carbon technologies, including battery packs, hydrogen fuel cells, wind turbine blades, photovoltaic panels, power transmission infrastructure, among others.

In Brazil, this scenario is already beginning to be felt. According to a report by the Brazilian Aluminum Association (ABAL), the first half of 2023 saw an 11.5% increase in aluminum consumption by the Brazilian electricity sector, mainly due to wind and solar installations. In 2022, Brazil was the fourth largest bauxite producer in the world, accounting for 9.4% of global production. The state of Pará holds approximately 75% of national reserves, followed by Minas Gerais and Goiás. According to the Brazilian Aluminum Association, in 2020, the total bauxite produced in Brazil was 32.9 million tons. Of this total, Mineração Rio Norte (MRN) was responsible for 37%, followed by Norsk Hydro Brasil Ltda. (26.2%), Alcoa Alumínio S. A. (22.5%) and Companhia Brasileira de Alumínio (3.5%).

Bauxite extraction has historically been associated with agrarian conflicts with quilombolas and riverine communities in Pará and rural communities in Minas Gerais. In Oriximiná, Pará, riverside and quilombola communities have been living with the damage and impacts of bauxite mining by Mineração Rio do Norte (MRN) for over forty years.

## Main Conclusions

One of the main threads of this study was to highlight the drastic consequences of the ecologically unequal exchange imposed by green capitalism, which have a profound impact on the territories affected by the projects. The research showed how the proposal for an energy transition currently underway is based on the premise of inserting Brazil into the global value chain as an exporter of “natural resources” and energy as a way of combating the climate crisis.



Although there are several projects in different territories, a common problem is the risk of water scarcity, since they demand intensive use of water resources, as well as causing changes to the groundwater table. Access to water is one of the main causes of social conflicts in rural Brazil, which have been exacerbated in the last two decades by the expansion of the mining frontier. This has been one of the topics of contention in the expansion of Sigma Lithium's lithium mining activities in Minas Gerais.

At the same time, the expansion of the country's productive activity as a result of the energy transition agenda, it seems, will not necessarily mean an increase in the supply of energy for the domestic market and, therefore, a reduction in the energy exclusion that still exists in Brazil. For example, green hydrogen, a central element of Germany's energy policy and now also of Brazil's energy policy, is expected to supply part of the German market's demand in its pilot projects, assuming the status of a commodity. The same applies to the production of spodumene concentrate, to be exported to supply the international battery market.

In addition, it is evident that the logic of green capitalism also means the foreignization and monopolization of assets in a small number of economic groups located in the global North and Asia.

One of the results of this research was the finding that mining and "clean energy" projects overlap with the territories of rural communities. Despite this, there lacks an integrated analysis of the synergistic and cumulative effects of wind energy generation projects in Ceará, and apparently elsewhere in Brazil. The same goes for mineral exploration.

The expansion of businesses related to corporate energy transition led to intensified violence and social tension in the affected territories, whether in the case of wind plants or mineral extraction. Illegal land purchases, land grabbing, threats, psychological pressure and harassment have become a latent reality in the affected communities, as well as worsening social problems such as the increase in alcoholism among the youth, sexual exploitation, violence against women and unwanted teenage pregnancies.

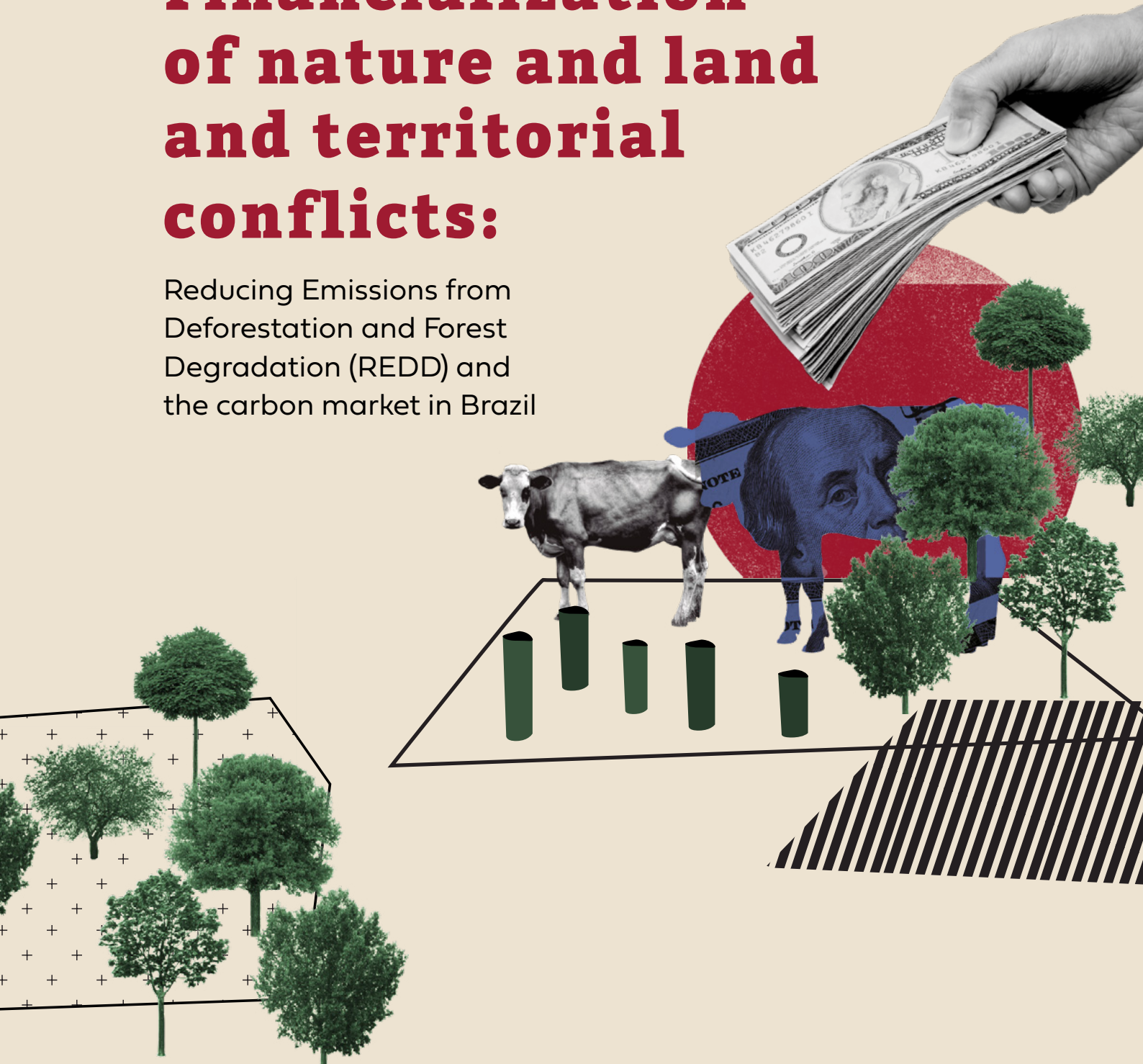
The scenario presented in the research reveals, therefore, that these processes, despite being painted green, have not shown any real impact in the fight against climate change, while at the same time perpetuating territorial conflicts and environmental racism. Through practices that legitimize environmental and human degradation in the name of "sustainable" development, it is naturalized that certain social sectors are affected not only by these projects, but also by the climate crisis; in the case presented, black communities, indigenous peoples and campesinos must sacrifice themselves for the sake of a greater benefit. In lithium mining, as in the case of wind plants, environmental racism is evident in the location of the projects, not coincidentally always in territories of traditional peoples; in the way companies and the state act, violating basic rights such as the right to consultation, and in the delegitimization and inferiorization of the knowledge of these peoples. Now in the name of the climate. By exposing the policies, projects, actors and implications of energy transition, we hope that this study can contribute to their struggles and the protection and promotion of their livelihoods.



## PART II

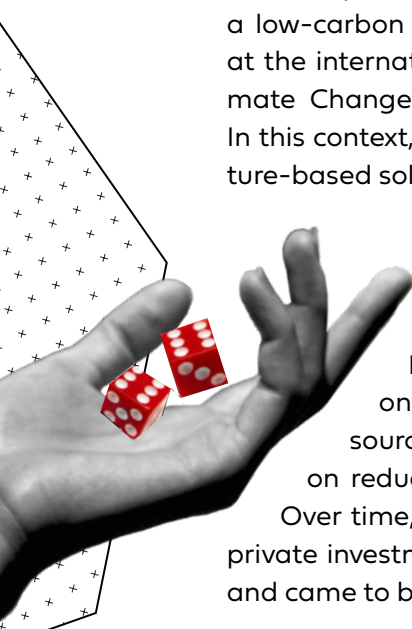
# Financialization of nature and land and territorial conflicts:

Reducing Emissions from  
Deforestation and Forest  
Degradation (REDD) and  
the carbon market in Brazil



## Introduction

Fundamental to shaping climate policies has been the construction of a narrative that highlights the removal of carbon from the atmosphere and the reduction of its emissions as priorities for mitigating climate change. Agreements and policies to promote a low-carbon or decarbonized economy have been discussed and agreed upon both at the international level, such as in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations, and at the national and sub-national levels. In this context, a scenario has grown in which so-called environmental services and nature-based solutions (NBS) are defined as essential drivers.



Among the policies being implemented are those based on Payment for Environmental Services (PES), involving “services” associated with human action to conserve or restore nature, and, more specifically, on Reducing Emissions from Deforestation and Degradation (REDD+). Based on the UNFCCC’s scientific diagnosis of deforestation as one of the main sources of greenhouse gas (GHG) emissions, REDD proposal initially focused on reducing deforestation by rewarding those who kept their “forests standing”. Over time, the understanding of REDD was broadened to also include public and private investments in forest management, conservation and increasing carbon stocks, and came to be known as REDD+.

The impasses in REDD+ negotiations are diverse. Some of them concern the methodology of accounting for the credits generated, traded and compensated; the need for safeguards to guarantee what have come to be known as co-benefits for communities as a result of several reports of conflicts; the construction of the so-called jurisdictional REDD, which would cover entire regions, states or countries, under the power of national and/or sub-national governments based on results-based payments, as a counterpoint to the problems identified in private projects; whether or not to allow financing through the carbon market; and whether or not to allow offsets, in other words, for countries and/or corporations to use credits generated by REDD to offset their emissions and thus “achieve” their targets without effectively reducing their own emissions.

Regarding the last two points, progress has been made since the Paris Agreement, which establishes in its Article 5 that countries must adopt measures to conserve and enhance GHG sinks and reservoirs, including forests, encouraging countries to implement and support measures, such as results-based payments, including REDD+. The language of the Agreement also led to the possibility of guaranteeing what has become known as “net zero emissions” or “carbon neutrality”. Article 6 of the agreement concerns financial mechanisms and approves the carbon market and offsets.

Carbon markets can be both regulated, as in the case of the Paris Agreement mechanisms or regional systems, and voluntary. The latter are known as such because they are not linked to mandatory targets for reducing countries’ GHG emissions, and can be negotiated by any company, individual, non-governmental organization (NGO) or government. Although REDD+ projects are not necessarily aimed at trading credits in the carbon markets, there has been an increase in the number of projects linked to this mechanism.

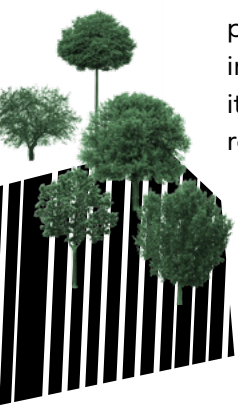
In order for the trading of carbon credits to take place in the voluntary market, it was necessary to stipulate rules for the implementation and operation of emission reduction projects. This resulted in the creation of international certification standards, governed by so-called “independent mechanisms”, or certifiers. These mechanisms are responsible for certifying that a given project has effectively reduced emissions or removed carbon from the atmosphere and can therefore generate carbon credits. They are responsible for assessing, validating, certifying and monitoring the projects, as well as issuing carbon credits.



Given this scenario, the primary objective of this research was to shed light on the main REDD+ policies and projects being developed in Brazil, the main contradictions and problems of a carbon market, voluntary and/or regulated, in constant expansion, and to present the conflicts perpetrated by the consolidation of REDD+. To this end, in addition to the conflicts analyzed in other studies, such as in the state of Acre, we highlight forest protection initiatives in the state of Pará, one of the main frontiers of capital accumulation in investments labeled as decarbonized in the current context.

The state of Pará was chosen as the focus of analysis because of efforts made to position the state as one of the main pillars of the forest carbon protection and compensation market, to host the UNFCCC COP-30. However, contrary to the “decarbonized” investments narrative, Pará is the Brazilian state that has contributed the most to deforestation in the country. It is also the champion state in regards to: the number of REDD+ projects; the largest number of hectares allocated to such projects; and the state with the largest number of publicly reported conflicts involving REDD+.

The information gathered in this study shows that the idea disseminated that it is possible to create more sophisticated carbon market and REDD related projects does not represent an improvement in the strategies and impact that climate mitigation projects focused on so-called forest protection and compensation can and are having. The expansion of modalities related to the supply of credits based on environmental programs in communities and forests opens up concrete margins for the spread of phantom credits, double counting, the creation of criteria and certifiers that, instead of correcting, corroborate with technical, or rather, political errors that found such a logic. What’s more,



they exacerbate socio-environmental conflicts and negative impacts in their most violent form. So far, it is clear that projects like REDD+ are not catalysts for reducing carbon emissions, nor are they programs for environmental and forest preservation. Similar practices to those described in this study deflect attention from central discussions on effectively addressing climate change, in particular its causes related to extractivist capitalism, and place the financing and profitability of projects as the main tone of measures, to the detriment of a system that is effectively redistributive and just. In addition, they blame, criminalize and expose indigenous, traditional and campesino peoples and communities and their respective territories to land and socio-environmental conflicts.

## REDD+ Policies in Brazil

The construction of Brazilian legislation on REDD+ began in 2015, with the launch of the National REDD+ Strategy (ENREDD+) and the creation of the National REDD+ Commission (CONAREDD+), set up with the aim of creating a national governance space responsible for coordinating, following up and monitoring the implementation of the National REDD+ Strategy. Paralyzed during Jair Bolsonaro's government in 2019, the Commission was reactivated in October 2023 by the current government of President Luiz Inácio Lula da Silva.

As far as state-level jurisdictional REDD programs in the country are concerned, all nine states in the Legal Amazon, i.e. Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima, Tocantins and Maranhão, have processes already established or under construction, most notably Acre's Environmental Services Incentive System, SISA. With the exception of Rondônia, the other eight states have submitted proposals to provide forest carbon credits to the LEAF Coalition, a public-private partnership created during COP26 in 2021 with the aim of channeling resources to national and sub-national governments in countries with tropical forests through the purchase of jurisdictional REDD+ credits.



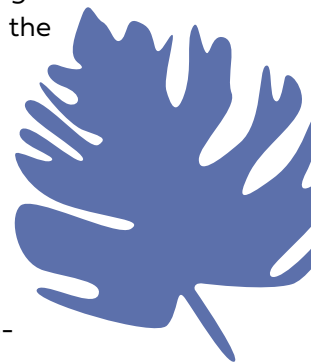
Acre was the first Brazilian state to sign a memorandum of understanding with the Coalition. It should be noted, however, that studies on the implications of the jurisdictional systems in Acre and Mato Grosso reveal problems such as the inability to reduce deforestation and contain the predatory operations of agribusiness, support for initiatives unrelated to reducing deforestation, problematic relations with indigenous and traditional peoples, as well as methodological problems such as double-counting of avoided emissions due to the lack of alignment between private projects and the jurisdictional program.

In addition to jurisdictional REDD programs, Brazil also has specific legislation on PES. Initially state-level, such programs were present in Rio de Janeiro, Espírito Santo, São Paulo, Santa Catarina, as well as Paraná, Minas Gerais, Paraíba, Bahia, Acre and Amazonas. In 2021, under the government of Jair Bolsonaro, a law was passed establishing the National Policy for Payments for Environmental Services (PNPSA), defining concepts, objectives, actions and criteria for its implementation.

In 2023, under the presidency of Luiz Inácio Lula da Silva, the Federal Senate approved Bill 412/2022, which regulates the Brazilian Emissions Reduction Market (MBRE). In the text approved by the Senate, companies that emit more than 10,000 tons of greenhouse gases a year will have to submit reports on their emissions to the body that will regulate the carbon market, the Brazilian Greenhouse Gas Emissions Trading System (SBCE). Carbon credits can be obtained by companies from projects or programs to reduce or remove greenhouse gases carried out by public or private entities. It is worth noting that the bill was blocked by agribusiness, and was only approved after the agriculture and livestock sector was removed from regulations. The sector intends to avoid any form of obligation, while being able to benefit from PES. The text, currently being considered by the Senate, focus of our concern, also establishes the National Jurisdictional REDD+ System.

In the process of consolidating a regulated carbon market in Brazil, the current government also launched the Ecological Transformation Plan or Ecological Transition Plan in August 2023. The aim is to transform Brazil from an agricultural power to an agri-environmental power on a planetary scale, as the basic text of the plan indicates. However, the actions envisaged by the plan are once again limited to the capitalist extractive development logic through financial investments based on a supposedly sustainable and environmentally just narrative.

As far as the state of Pará is concerned, the Pará State Policy on Climate Change (PEMC/PA) was established in 2020, aimed at monitoring, planning and overseeing environmental quality and the sustainable use of natural resources, imposing an obligation on environmental authorities to monitor carbon market contracts. It should also be noted that the project to build Jurisdictional REDD in the state is moving forward, with the participation and leadership of the State Secretariat for the Environment and Sustainability (SEMAS-PA) and the conservationist NGO The Nature Conservancy (TNC).

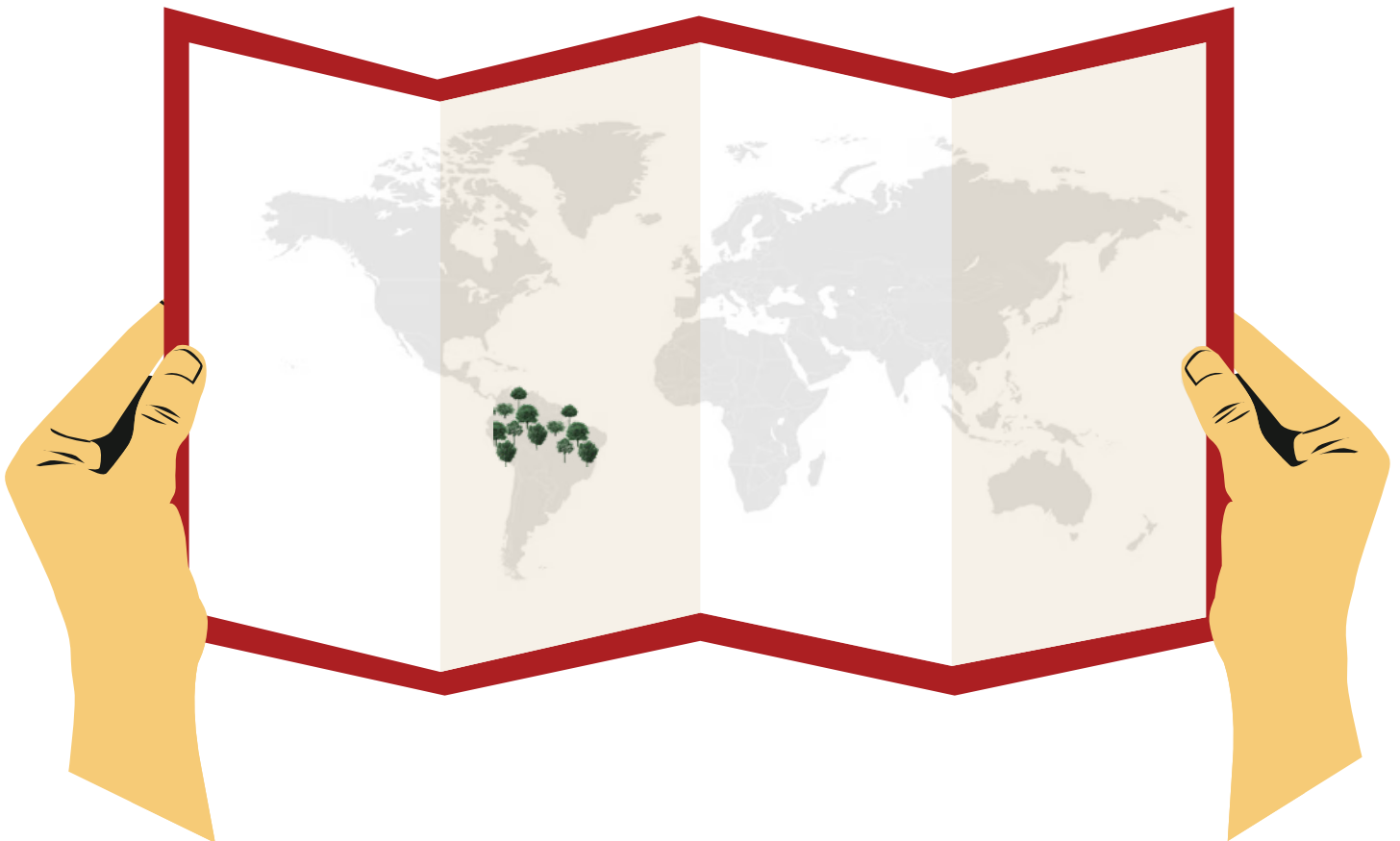




## REDD Projects in Brazil

REDD+ projects may or may not involve the trading of carbon credits. Although initiatives and projects that do not involve carbon trading are more difficult to identify, as they are not associated with a certification body, we mapped the projects related to the Amazon Fund. The Amazon Fund is a financing instrument for REDD+ actions proposed by Brazil in 2007 at COP13, and officially created in 2008. Its purpose is to support projects aimed at preventing, monitoring and combating deforestation and promoting conservation in the Legal Amazon. The Fund supports 42 projects that are currently underway, as well as another 60 that have already been completed. Of the projects that are currently active, 22 are located in Pará, of which 6 take place exclusively in the state, making Pará the state with the largest number of projects supported by the Fund. In addition to Pará, the Amazon Fund has projects in Amazonas, Mato Grosso, Rondônia, Acre, Maranhão, Bahia, Espírito Santos and Tocantins.

With regard to private REDD+ projects, aimed at selling credits on the Brazilian carbon market, 107 projects were mapped in the country, at different stages of execution and implementation: "development", "validation", "approval of registry and verification request submitted", "registered". Once registered, carbon credits can be issued. Together the projects total almost 19 million hectares. REDD+ projects in Brazil are certified by three mechanisms: the Verified Carbon Standard (VCS) and the Climate, Community & Biodiversity Standards (CCB), both administered by Verra, and Cercarbono. Among the projects mapped, 87 already have or are in the process of obtaining the VCS standard, of which 37 are also registered with the CCB label. The other 20 projects are registered with Cercarbono and are still in the implementation phase.



The VCS is the most widely used greenhouse gas credit program in the voluntary market in the world. The CCB is an additional standard that certifies that projects guarantee, in theory, benefits for the communities involved and affected by the project and for local biodiversity, in addition to climate-related benefits. Both are managed by Verra, which has been the target of complaints concerning the methodology used to issue its credits as well for providing false information on community involvement. Two studies pointed out that the projects registered by the certifier were probably “ghost credits” and did not represent effective carbon reductions, with an overestimation of the threat of deforestation in the project areas. Cercarbono is a Colombian carbon certification standard created in 2016, which issued its first certifications in 2019.

Among the projects mapped in this research, 32 are located in Pará, the state with the highest number of projects; 22 in Amazonas; 18 in Mato Grosso; and 16 in Acre. The other projects are divided between Rondônia, Tocantins, Amapá, Mato Grosso do Sul, Minas Gerais, Paraná and Piauí, as well as projects located in more than one state. It is worth noting that since the text of the research was finalized at the end of 2023, 10 further projects are on the certifiers’ lists, under development: 1 in Amazonas, 1 in Rondônia, 3 in Mato Grosso, 1 in Mato Grosso do Sul, 3 in Pará and 1 involving Pará and Amapá.

It should also be noted that of the 87 projects registered with Verra, 57 have one of the nine companies that appear as proponents in more than one REDD+ project. In general, these are companies focused on developing carbon or environmental preservation projects, which are either hired to advise other companies or individuals who claim to own land where a project is to be developed, or can develop their own projects.

A project is able to issue and trade carbon credits from the moment it obtains registration with the certifier. In Brazil, there are currently 26 registered REDD+ projects, all certified by Verra, including the Jari/Pará project, which is currently under suspension after having obtained registration and being able to trade credits. Of these 26 projects, 24 had issued and traded credits. By September 2023, 65,928,762 carbon credits had been issued, of which 33,634,709 had been traded. Among the buyers of credits are large companies such as AirFrance, Delta Airlines, Barilla, BNP Paribas, Banco Bradesco, TotalEnergies, TIM, Petrobras, Uber, Globo, BTG Pactual, Santander, L’Oreal, Banco do Brasil, iFood, Itaú, among others.

We also mapped 16 projects with public denunciations of conflicts, covering approximately 6 million hectares. All of them are registered with Verra, and 10 currently have a VCS registration. The state with the highest number of conflicts is Pará, where 7 cases have been publicly denounced. The other denounced projects are in Acre, Amazonas, Rondônia and Mato Grosso. The complaints involve processes of deterritorialization; intensification of land conflicts and changes in the traditional way of life of communities from the affected territories; overlapping of projects with public lands; false promises made to communities; and irregularities in the community consultation processes, among others. As these are areas where indigenous, campesino and traditional communities live, there has been no effective reduction in deforestation caused by agents of the hydro-agro-energy-mineral complex.

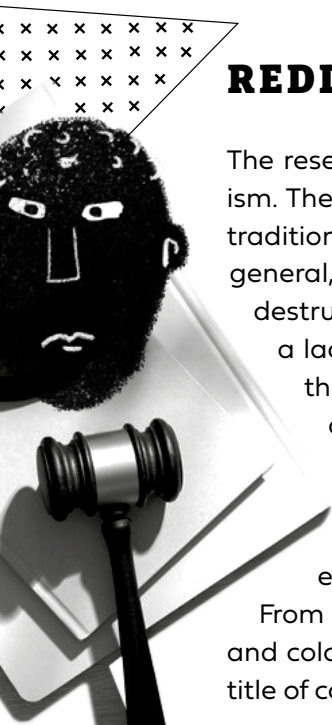
## REDD and Environmental Racism

The research carried out also shows the links between REDD+ and environmental racism. The discourses and practices related to forest protection and conservation attack traditional peoples and communities, indigenous territories and black populations in general, holding them responsible for deforestation, placing them as environmentally destructive, as possessing obsolete practices of material production of life and with a lack of knowledge. The reduction of effective climate and environmental issues to the dynamics of technification, metrics and numbers, to the logic of the market and financialization, constructs a social imaginary that indigenous, campesinos and traditional peoples and communities should be blamed for environmental and climate problems, and not the accumulation regime and development paradigm based on the hydro-agro-energy-mineral complex. This dynamic establishes restrictions on and criminalizes the traditional use of these territories.

From the data and analysis presented in this research, we can clearly see the race and color of the peoples held responsible and paying the costs, even if they receive the title of co-beneficiaries.

To illustrate how environmental racism is present in REDD+, two projects were selected in Pará - the Jari/Pará Project and the Agropalma Project - to be analyzed in greater depth. Both projects are run by Biofílica, a company that specializes in developing GHG emissions reduction projects through forest conservation and carbon sequestration through reforestation. Biofílica is currently one of the main REDD project developers in the country, responsible for 9 of the projects mapped in this study, as well as being the company with the largest number of projects in Pará. The research points out that both the companies proposing the projects - Grupo Jari and Agropalma - are linked to processes of deterritorialization of traditional communities in the territories in which they operate and to changes in the ways of life of these populations, in addition to the fact that their REDD+ projects identify small and medium-sized farmers as "agents of deforestation". In the case of the Jari/Pará Project, the project's registration was also suspended following accusations that it was located on public land.

As such, with this research, we seek to understand and problematize the policies and mechanisms being constructed and legitimized in the name of the climate. Policies and mechanisms that do not reduce deforestation; do not benefit communities; and generate conflicts. While communities are identified as "agents of deforestation," they conceal the structural responsibility of the hydro-agro-energy-mineral complex by claiming the possibility of compensating for destruction. Compensation often results in the expansion of private appropriation of land, when not land grabbing, representing a new global race for land and territory. The countries of the Global South continue to play a subordinate and dependent role in global capitalism: "we are once again enslaved labor so that capitalism can continue to function as usual," said a quilombola affected by a PES project. Now in the name of the climate. But what about the climate? What problems are we truly facing with these policies and projects? Who is responsible for climate change? Who pays? We hope to encourage debate about what is being done in the name of the climate and to support the struggles of indigenous, campesino and traditional communities and peoples.



# In the name of the climate: A critical mapping of energy transition and financialization of nature

## Original title

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