

THE PRICE OF GREEN: LITHIUM, ORE, AND GRAIN CORRIDORS, AND BRAZIL'S SACRIFICE ZONES BUILT WITHOUT FREE, PRIOR AND INFORMED CONSENT

Representatives of Indigenous A'uwẽ-Xavante and Jequitinhonha Valley communities (Indigenous and Quilombolas) in Brazil, and Cultural Survival

November 2025



Cultural  Survival

EXECUTIVE SUMMARY

The pursuit of a low-carbon future is creating a profound paradox: under the banner of climate mitigation and clean energy, the extraction of “transition minerals” and the expansion of industrial agriculture, in biomes that are critical for Brazil’s just transition, are destroying the very communities and ecosystems that have long safeguarded our planet for generations. Across Brazil, from Jequitinhonha Valley to the Cerrado^[i], Indigenous Peoples, Quilombola and Traditional Communities face escalating threats from lithium mining, agro-industry and associated infrastructure projects such as railway, highway and hydroelectric expansion, all justified in the name of sustainability, development and energy transition. The Cerrado has been framed as the “centre stage of the soybean-powered Green Revolution”^[ii], just like the Jequitinhonha Valley, as the Lithium Valley^[iii].

This brief, grounded in the experiences of Brazilian Indigenous Peoples, such as Aranã Caboclo, Pataxó, Pankararu, A’uwẽ-Xavante, and Quilombola communities in the Jequitinhonha Valley and Cerrado, resisting the Central-West Integration Railway or FICO (Ferrovia de Integração do Centro-Oeste), reveals how Brazil’s green transition and development plans risk deepening Brazil’s sacrifice zones^[iv], where environmental and racial injustice, as territorial dispossession and human rights violations against Indigenous Peoples, are the norm, not the exception.

“ **Sacrifice zones are not merely impacted areas but actively constituted through a violent logic that designates certain bodies, territories, and their cosmologies as expendable. This process systematically destroys the vital, relational bonds between communities and their ancestral lands, which are not merely resource-rich areas but the very source of cultural identities, spiritual memory, and meaningful existences. The destruction of these geographies undermines climate policies, weakens the ability of communities and territories to adapt, and causes the collapse of biodiversity.**”

- Edson Krenak (Krenak) & Djalma Ramalho (Aranã Caboclo)



THE JEQUITINHONHA VALLEY: A FLAWED TRANSITION CREATING NEW SACRIFICE ZONES BY LITHIUM MINING

In the Jequitinhonha Valley, north of Minas Gerais, one of Brazil's most historically marginalized sacrifice zone, the global race for lithium^[v] reveals the true cost of the "green transition". This pre-existing sacrifice zone now faces intensified extraction under the banner of the "Lithium Valley". While companies and government agencies promise progress, more than 248^[vi] Traditional communities, Indigenous Peoples, and Quilombola face dispossession and systematic rights violations. Indigenous Peoples such as Aranã Caboclo, Pataxó, Pankararu, comprising over 150 families, in different communities, continue to face prolonged delays in the land demarcation and homologation of their ancestral territories. Meanwhile, Quilombola communities endure constant threats, intimidation, and insecurity from the absence of proper consultation, lack of access to information, and systematic abuses by companies and local authorities. Their territories remain unprotected. Their voices were unheard. Their rights sacrificed.

The Problem: Sigma Lithium Corporation and the Grota do Cirilo Complex

A concrete example of this situation is the Sigma Lithium's Grota do Cirilo complex. Sigma Lithium Corporation is a Canada-based global lithium producer dedicated to producing electric vehicle batteries. The company is headquartered in Vancouver (British Columbia, Canadá) with offices in Sao Paulo, Brazil. Sigma Lithium owns 100% of the Grota do Cirilo operation through its subsidiary Sigma Mineração S.A. (Sigma Brasil). This is the 100% owned Brazilian operating branch that holds licenses and operates the Grota do Cirilo project.

Scale of Environmental Destruction

In its technical report, the company estimates that its operations will generate approximately 195.6 hectares of waste rock and tailings deposits, representing about 30% more land use than comparable mines operating in Brazil^[vii]. According to environmental experts, this expansion will cause profound and irreversible impacts on local ecosystems and water resources in an area where water is scarce for communities and local agriculture^[viii]. The region has more than 130 cataloged water sources and is considered the natural water reservoir for the municipality of Araçuaí and dozens of surrounding communities. The Área de Proteção Ambiental (Environmental Protected Area) da Chapada do Lagoão, in the municipality of Araçuaí, is rich in fauna, flora, and freshwater springs.

Professor Klemens Laschefski from the Department of Geology at Federal University of Minas Gerais observes:

“ Sigma chose the cheapest and most destructive path, turning the Jequitinhonha Valley into a victim territory of consumerism in the Global North. While local firms operate efficiently with lower impacts, Sigma devastates sensitive areas and disregards viable technical solutions.”^[ix]



SYSTEMATIC BREACH OF RIGHTS

Violation of Free, Prior and Informed Consent

Sigma “initiated the environmental assessment studies in January 2021 and filed for its environmental license in July 2022,”^[xi] and received an operating license in March 2023 in Minas Gerais to sell and export lithium for the production of electric vehicle batteries. The company received the license despite violating the rights of multiple communities by failing to obtain their Free, Prior and Informed Consent. The affected communities include the Pataxó and Pankararu Peoples of the Aldeia Cinta Vermelha-Jundiba Indigenous Territory, the Aranã Caboclo Indigenous Peoples (whose members live in various locations awaiting the demarcation of their territory), the rural community of Piauí Poço Dantas, and the Quilombola communities of Giral, Malhada Preta, and Córrego do Narciso do Meio^[xi].

Brazil has ratified international agreements that protect the rights of Indigenous Peoples, such as Convention 169 of the International Labour Organization (ILO Convention 169), which establishes the right to Free, Prior, and Informed Consent (FPIC) for any activity affecting Indigenous or tribal lands^[xii]. FPIC becomes mandatory whenever legislative initiatives, policies, or development undertakings generate consequences for Indigenous Peoples, as in the case of Sigma Lithium's Grota do Cirilo complex. These obligations are reinforced by the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which requires States to consult and cooperate in good faith with Indigenous Peoples through their representative institutions. The business involved must also act in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGPs), conducting comprehensive human rights due diligence (HRDD) processes to identify, prevent, mitigate, and report any actual or potential adverse impacts on the rights of Indigenous Peoples.

Cleonice Pankararu, an Indigenous woman and activist, explains the depth of this violation:

“**The company destroys the soil and the subsoil. We Indigenous people feel this deeply. For us, material and immaterial heritage, the natural and supernatural, are inseparable and indivisible. A stone has value, a cave has value, a stream, a river, a spring. All of this is essential to our life, our orientation, our culture, our social and spiritual organization.**”^[xiii]

Violation of Constitutional Environmental Safeguards

Sigma Lithium's Grota do Cirilo complex proceeds without cumulative impact assessments, violating both Brazilian constitutional principles and international human rights law. Brazil's Federal Constitution (Article 225, § 1º, IV)^[xiv] mandates prior environmental impact studies for activities potentially causing significant environmental degradation, a requirement judicially interpreted to include cumulative and synergistic effects as established by CONAMA Resolution 01/1986^[xv]. The failure to assess cumulative impacts from existing operations (such as Companhia Brasileira de Lítio) and Sigma's planned nine-mine expansion violates constitutional principles of precaution and prevention consistently upheld by Brazil's Supreme Federal Court^[xvi].

Moreover, this omission breaches international obligations under ILO Convention 169, ratified by Brazil through Decree 5.051/2004, which requires States to conduct studies assessing social, spiritual, cultural, and environmental impacts of development activities on Indigenous Peoples (Article 7.3). The Inter-American Court of Human Rights has established that environmental and social impact assessments, including cumulative effects analysis, constitute mandatory requirements before granting concessions in or near Indigenous territories^[xvii]. Brazil's failure to conduct such assessments before licensing Sigma's operations, thus violates not only domestic constitutional mandates but also binding international human rights obligations to which Brazil is a party.

Regardless, the Public Ministry and local Quilombola organizations had recommended further studies before the start of mining activities, as the region has more than 130 cataloged water sources and is considered the reservoir for the municipality of Araçuaí^[xviii]. Sigma Lithium's Grota do Cirilo complex continues its operations without accountability.

The failure to conduct a cumulative impact assessment and inform the communities clearly violates constitutional principles of precaution and prevention established by Brazil's Constitution, threatening the rights to a healthy environment, water, and health. Existing operations, such as those of CBL (Companhia Brasileira de Lítio), and all of Sigma Lithium's planned future expansions^[xix], as well as the neighboring mines planned by other companies, not only call into question the evaluation of environmental viability but also violate Brazil's constitutional principles of precaution and prevention.

The Climate Hypocrisy: Public Funds Financing Violations

Sigma Lithium's Grota do Cirilo complex received over R\$486 million from the National Development Bank (BNDES) through the Fundo Clima^[xx], Brazil's public climate fund created to finance adaptation and sustainability^[xxi]. Instead of protecting ecosystems or building community resilience, this climate finance bankrolls mining operations in the Área de Proteção Ambiental da Chapada do Lagoão in Araçuaí municipality^[xxii], a biodiverse region rich in fauna, flora, and freshwater springs that serves as a natural water reservoir for dozens of surrounding communities^[xxiii].

This represents perhaps the starkest contradiction of Brazil's "green transition": climate finance meant to build resilience is instead financing the dispossession of the very communities whose territories provide critical ecosystem services. Funds designated for sustainability are enabling a project that proceeds without FPIC, without cumulative impact assessments, and in violation of constitutional environmental safeguards.

Guilherme Queiroz from the Graduate Program in Society, Environment and Territory of the State University of Montes Claros warns:

“ We cannot allow the Jequitinhonha Valley to become a frontier of negligence where extractivism masquerades as sustainability. A just energy transition cannot repeat colonial violence.”



Community Voices: Resistance and the Right to Self-Determination

The voices from affected communities cut through the technical language of environmental licensing, revealing the human cost of these violations. Djalma Ramalho Gonçalves (Aranã Caboclo) articulates the fundamental principle at stake: **“We are not against development, but we are against a predatory model that violates life and destroys Mother Earth without our consent. This is our land, and our voice must be the first and the last of its future.”**

These statements reveal that communities demand their constitutional and internationally recognized right to determine what happens on their ancestral territories. The extraction continues not because communities consent, but because their lack of legal land security makes their dissent invisible to licensing processes. By failing to complete land demarcation and obtain genuine FPIC, Brazil transforms constitutional rights into administrative formalities, enabling projects like Sigma Lithium's to proceed while communities bear the costs of dispossession, environmental destruction, and cultural erasure.

The Imperative of Land Demarcation and Binding Consent

The Jequitinhonha Valley case demonstrates how Brazil's "green transition" risks replicating the same patterns of colonial extraction that created sacrifice zones in the first place. Sigma Lithium's operations, financed by Brazil's own climate fund, reveal a system where constitutional rights to FPIC are violated with impunity, where environmental safeguards such as cumulative impact assessments and precautionary principles are systematically bypassed, where climate finance enables rather than prevents dispossession, where corporate interests override Indigenous and Quilombola territorial rights, and where communities are systematically excluded from decision-making about their own lands.

Ensuring that Indigenous and Quilombola lands are demarcated and territories protected is not only a constitutional duty under Article 231 of Brazil's 1988 Constitution, but also the cornerstone of any credible climate and human rights policy. Without completed demarcation, binding FPIC protocols, and enforcement of environmental safeguards, the "Lithium Valley" will remain a sacrifice zone—a place where the promise of a green future is built on the destruction of the communities and ecosystems that have protected these territories for generations.

The question is not whether Brazil can afford to respect Indigenous and Quilombola rights in its energy transition. The question is whether a transition built on the violation of these rights deserves to be called "green" or "just" at all.

THE CERRADO: INFRASTRUCTURE COLONIALISM AND AGRO-INDUSTRIAL EXPANSION WITHOUT FPIC

The Cerrado: The Cradle of the Amazon

The Cerrado is not just Brazil's savanna. It is the world's most biodiverse savanna, a vast mosaic of grasslands, incredible twisted forests, and critical water springs that sustain other biomes, including the Amazon rainforest. This cradle of water feeds South America's major rivers and sustains the lives and cultures of dozens of Indigenous Peoples and Traditional communities who have cared for and protected this unique biome for millennia. Yet the Cerrado is being systematically sacrificed for soy, rare earth minerals, and export infrastructure under the banner of "clean energy," economic development, and "sustainable" commodity production.

The real impact of agro-industrial projects without traceability and without FPIC in the Cerrado reveals a development model that continues to create sacrifice zones where Indigenous and other marginalized Peoples and ecosystems are destroyed for profit and to serve the interests of wealthy nations. This is not an aberration but the logical outcome of a system that treats Indigenous consultation as an administrative formality rather than a constitutional obligation.

The A'uwẽ-Xavante Peoples Facing Existential Threat from FICO Railway

The A'uwẽ (Xavante) Peoples (population 25,000)^[xxiv] are facing an existential threat from the FICO railway (Ferrovia de Integração do Centro-Oeste). This project is a key piece of infrastructure designed to shorten transport routes, reduce shipping costs, and facilitate the use of "clean energy"^[xxv] transportation for grains and minerals such as rare earths from the neighboring state of Goiás^[xxvi] to be exported to ports on the Pacific Ocean for Asian markets and the Atlantic Ocean for Europe. The project will negatively impact over 31,000 Indigenous people from over 20 distinct ethnic groups residing in over 24 Indigenous Territories^[xxvii].

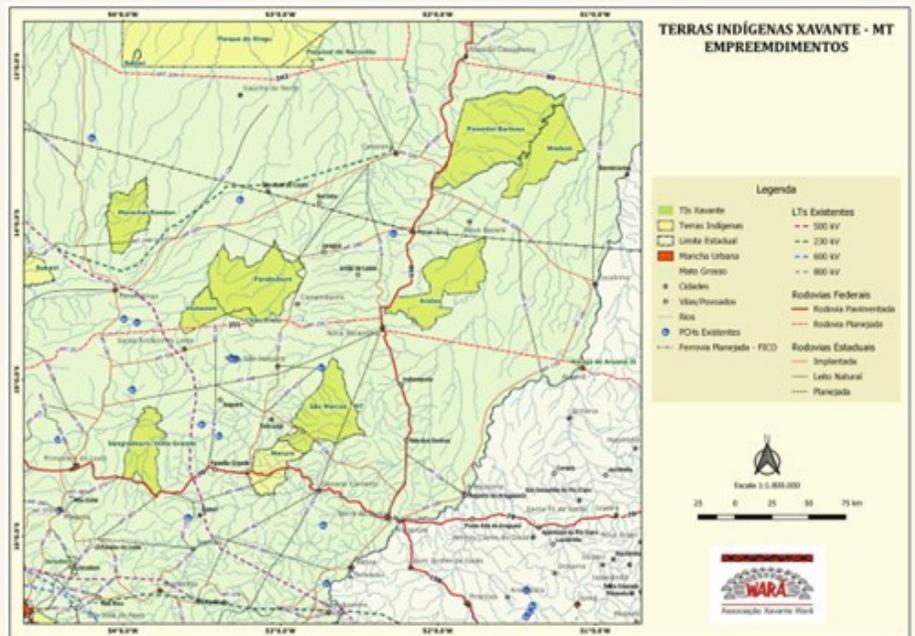
On the government project website, the highway concession process is listed as involving studies, public consultations, agreements, bidding, approval, and contracts. Yet it completely excludes the large number of Indigenous Peoples affected^[xxviii]. The planned FICO railway skirts the northern edge of the Areões Indigenous Land in an undemarcated area between Areões and T.I. Pimentel Barbosa territory.

In the words of one A'uwẽ leader, the project "divides our ancestral territory in half, threatening A'uwẽ's access to hunting, fishing, other natural resources, and sacred sites, and "produces divisions and war among us." The A'uwẽ leader emphasizes: "Any project that affects one of our territories is a problem for the entire A'uwẽ Xavante Peoples."



Progress of the FICO construction: 35% completed. Photo ANTT^[xxix]

This map shows Indigenous Lands alongside state and industrial projects in Mato Grosso, Brazil. Federal highways are marked in red (paved) and dashed red lines (planned). Yellow highlighted territories are the Xavante Indigenous Lands (TIs), not all of which are fully legalized. The planned FICO railway skirts the northern edge of the Areões Indigenous Land in a not demarcated area between Areões and T.I. Pimentel Barbosa territory.



This struggle represents far more than a dispute over infrastructure routing. The A'uwẽ-Xavante's fight to protect their land, resources, and way of living is not just about rerouting a train. It is about confronting the fundamental premise of development in Brazil and defending the right to determine their own future on their own land. Also, this represents a direct challenge to Brazil's prevailing development model, which, under the banner of progress, continues to sacrifice Indigenous and other marginalized Peoples and ecosystems for profit and to attend to the interests of wealthy nations.

Without genuine and good-faith consultation through Xavante governance institutions, with representatives of all Xavante territories, and without respecting A'uwẽ sacred territories and ancestral protocols, Brazil risks more than legal noncompliance. It risks losing moral and environmental credibility on the world stage.

The Violations: Institutional Harassment and FPIC Breakdown

Most critically, the process led by Fundação Nacional dos Povos Indígenas - FUNAI, Brazil's state agency mandated to protect Indigenous Peoples, constitutes what some A'uwẽ term 'institutional harassment.' The A'uwẽ representatives state clearly: "If the Brazilian State intends to build infrastructure for the export of commodities, that cannot be on our lands and resources."

In violation of ILO Convention 169 and UNDRIP's requirement for FPIC, FUNAI and the railroad construction company INFRA S.A. have presented fragmented and selective information about the FICO railway to leaders of different Xavante territories. This deliberate strategy fosters division among communities and conceals the full extent of the project's cumulative impacts on A'uwẽ Xavante lands and livelihoods.

This process reflects structural weaknesses in Brazil's legal and institutional framework, where consultation is treated as an administrative formality rather than a constitutional obligation. The absence of binding FPIC legislation systematically undermines Indigenous Peoples' right to self-determination. In effect, Brazil's current environmental and infrastructure governance mechanisms transform the constitutional principle of precaution into bureaucratic convenience, giving projects like FICO power and freedom while Indigenous Peoples bear the social, ecological, and spiritual costs.

The Broader Context: Agribusiness, Deforestation, and Environmental Destruction

The fact that the Brazilian State is vigorously pushing for economic development projects in the Cerrado region without adequate participation of Indigenous Peoples and little regard for A'uwẽ's rights or their traditional ways of life creates more sacrifice zones. As Katarzyna Górka documents in the International Journal for Equity in Health, "The construction of roads, hydroelectric dams, and agribusiness ventures led to significant deforestation and environmental degradation, further undermining the Xavante's subsistence practices and connection to their ancestral lands"^[xxx].

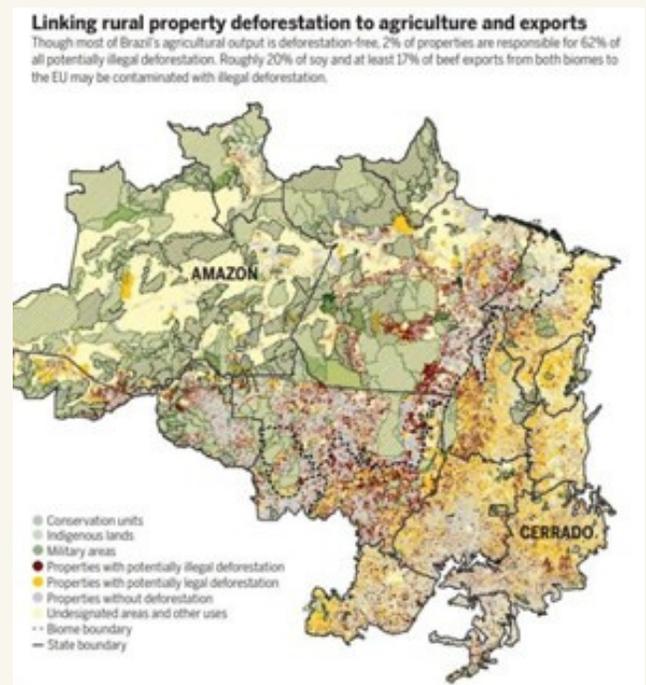
According to geographer Maria Lúcia Cereda Gomide, the Agro Xavante project represents a dual threat: environmental destruction and a fundamental breach of law. "The little bit of Cerrado left inside the reserve will be deforested, and there will be poison from agrottoxins," she warns.

Furthermore, she states unequivocally: "Agribusiness flies in the face of the Constitution. Indigenous lands can't be leased. A parcel of it cannot be leased. So, it is contrary to legislation."^[xxxii]

The suspension and end of the Amazon Soy Moratorium by the Brazilian antitrust regulator CADE (Conselho Administrativo de Defesa Econômica / Administrative Council for Economic Defense) is directly linked to infrastructure expansion, like FICO. This decision will increase deforestation, enable further deregulation, and create more threats to Indigenous Peoples. Arguments concerning illegality and economic nationalism cannot impose the burden of self-regulation on foreign multinationals while simultaneously jeopardizing Brazil's ability to meet its international climate commitments.

The Cerrado biome, as well as the Amazon biome, is under threat given the lack of adequate regulation and respect for Indigenous Peoples' constitutional rights as well as rights to FPIC. Research affirms that the current development model is linked to increased deforestation in both biomes. Rajão and colleagues, writing in Science Magazine in 2020 in their article "The rotten apples of Brazil's agribusiness," document that:

“ Roughly 120 ± 26 thousand properties (15% of our sample) in both biomes were deforested after 2008. About 36 thousand of these properties in the Amazon (84%) and 27 thousand in the Cerrado (35%) carried out this deforestation, in all likelihood illegally”^[xxxii].



From Sacrifice Zones to Indigenous Sovereignty

The FICO railway case exposes how Brazil's infrastructure and agribusiness expansion systematically violate Indigenous rights while claiming to advance climate solutions. The project proceeds despite clear violations of ILO Convention 169, UNDRIP, and Brazil's own constitutional obligations. FUNAI, the very agency charged with protecting Indigenous rights, has become an instrument of "institutional harassment," presenting fragmented information to divide communities and conceal cumulative impacts.

The linkage between FICO, the suspension of the Amazon Soy Moratorium, and the Agro Xavante project reveals a coordinated assault on the Cerrado and its Indigenous protectors. This is not development: it is the systematic conversion of Indigenous territories into sacrifice zones for export commodities and minerals destined for wealthy nations. The construction proceeds without genuine consultation and consent, without respect for sacred sites, and without recognition that the A'uwẽ-Xavante's territorial integrity is inseparable from the Cerrado's ecological integrity.

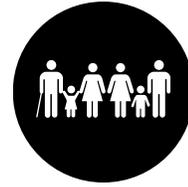
If Brazil cannot respect Indigenous sovereignty in the Cerrado, a biome that functions as the water source for the Amazon itself, then its claims to climate leadership are hollow. The question before the international community at COP30 is whether the global climate regime will accept infrastructure branded as "clean energy" that is built through the violation of Indigenous rights, or whether it will demand that genuine climate solutions be constructed on the foundation of binding FPIC, completed land demarcation, and Indigenous co-governance.

Brazil must stop licensing destruction in the name of "just transition" or "sustainability" to be a climate leader. It must commit to achieving binding Indigenous consent, environmental justice, and Indigenous co-governance. The path to a livable planet runs not through sacrifice zones, but through the sovereign territories and visionary leadership of Indigenous Peoples and Quilombola communities.

Pataxó and Pankararu Peoples prepare a spiritual ceremony. Cinta Vermelha Indigenous Land, Jequitinhonha Valley. Photo by CS Staff.



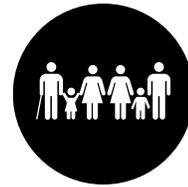
RECOMMENDATIONS



To the Federal Government of Brazil:

- Urgently complete the demarcation of the Arana Caboclo, Pataxó, and Pankararu Indigenous territories in Minas Gerais, the undelimited zone between Areões and T.I. Pimentel Barbosa in Mato Grosso, as well as the land titling processes for Quilombola lands affected by mining operations.
- Guarantee the protection of lands in demarcation processes by prohibiting the authorization, licensing, or implementation of any extractive projects involving transition minerals or large-scale agribusiness expansion in Indigenous territories and Quilombola lands until demarcation and titling processes are fully completed and Free, Prior and Informed Consent has been obtained from affected communities in accordance with international human rights standards.
- Ensure that local and regional legislative and policy decisions regarding extractive projects and infrastructure development comply with constitutional and international human rights obligations, particularly regarding Indigenous Peoples' rights.
- Immediately suspend Sigma Lithium mining operations, FICO railway construction, and the Agro Xavante project until Free, Prior and Informed Consent is obtained from all affected Indigenous Peoples and Quilombola communities through their representative institutions and customary governance structures, and until all related territorial demarcation and land titling processes are completed in accordance with ILO Convention 169 and the UN Declaration on the Rights of Indigenous Peoples.
- Conduct mandatory cumulative impact assessments by independent third parties covering all mining operations (Sigma Lithium and CBL), the FICO railway project and associated developments, with full participation of affected Indigenous Peoples and Quilombola communities in accordance with ILO Convention 169. Establish a Water Safety and Ecological Integrity Zoning and Management Plan for the APA Chapada do Lagoão with co-management authority and adequate resources for Indigenous Peoples and Quilombola communities.
- Adopt precautionary zoning mechanisms and strengthen compliance enforcement to prevent the creation and accumulation of sacrifice zones, ensuring that Brazil's "green transition" does not reproduce patterns of internal colonialism or violate constitutional and international human rights obligations.
- Investigate allegations of "institutional harassment" by FUNAI and strengthen its capacity to protect Indigenous Peoples' rights in accordance with international standards.
- Ensure that local and regional legislative and policy decisions regarding extractive projects and infrastructure development comply with constitutional and international human rights obligations, particularly regarding Indigenous Peoples' rights.
- Establish a reparations framework for communities harmed by mining operations, including compensation for environmental and cultural damages, legal support, and resources for ecological restoration and community-led development alternatives.
- Guarantee effective access to justice for Indigenous Peoples and Quilombola communities affected, including effective judicial remedies and access to international human rights protection mechanisms.

RECOMMENDATIONS



To the COP 30 Presidency and United Nations Framework Convention on Climate Change Secretariat:

- Integrate Indigenous Peoples and Quilombola-led Nationally Determined Contributions (NDCs) as subnational implementation mechanisms into the official COP30 agenda and climate reporting frameworks, recognizing Indigenous Peoples' essential role in climate governance and their right to participate effectively in all climate-related decision-making processes.
- Recognize territorial integrity and Indigenous and Quilombola land stewardship as measurable climate contributions under the Paris Agreement, acknowledging that Indigenous Peoples are essential actors in meeting global climate targets.
- Establish direct access modalities to climate finance for Indigenous-led organizations and community-based projects that protect critical ecosystems such as the Cerrado and Jequitinhonha Valley, ensuring that climate finance reaches those who have historically protected these territories while respecting Indigenous Peoples' right to self-determined development.

To Climate Finance Mechanisms (Green Climate Fund, Loss and Damage Fund, Adaptation Fund):

- Ensure direct, flexible, and long-term funding mechanisms specifically designed for Indigenous-led climate action platforms, managed by Indigenous organizations themselves, in accordance with their right to self-determination and cultural integrity.
- Develop and adopt robust Free, Prior and Informed Consent verification protocols for all climate finance, particularly from private sector sources, to prevent extractive models disguised as green investments. These protocols must ensure that climate projects genuinely protect biodiversity, cultural continuity, and community economies, and do not create new sacrifice zones in the name of climate action.

To the UN Permanent Forum on Indigenous Issues, Expert Mechanism on the Rights of Indigenous Peoples, and Special Rapporteur on the Rights of Indigenous Peoples:

- Conduct an urgent thematic investigation on human rights violations in sacrifice zones created by the so-called "green transition," with Brazil's transition mineral extraction and agro-industrial expansion as a key case study. Document how lithium, nickel, rare earth mining, industrial soy, monocultures, and infrastructure corridors systematically violate Indigenous Peoples' rights to their lands, territories, resources, and Free, Prior and Informed Consent.
- Advocate for binding global safeguards that establish legal accountability mechanisms for states and corporations involved in transition mineral extraction and climate-related infrastructure projects, preventing green colonialism and ensuring that climate action respects Indigenous Peoples' rights and supports Indigenous-led pathways to just and rights-based transitions.

END NOTES

^[i] In a recent Report, the World Bank framed Cerrado as a critical biome in terms of sustainability and just transition as a green economy frontier for its bioenergy potential. See: <https://www.weforum.org/publications/the-cerrado-production-and-protection/>

^[ii] IDS Bulletin, Frontier Territories: Countering the Green Revolution Legacy in the Brazilian Cerrado. <https://bulletin.ids.ac.uk/index.php/idsbo/article/view/3189/3249>

^[iii] BNamericas, Minas Gerais creates 'lithium valley' to attract investment. <https://www.bnamericas.com/en/news/minas-gerais-state-creates-lithium-valley-to-attract-investment>

^[iv] In his 2021 report on the UN Human rights Council, David R. Boyd stated: "Sacrifice zones are places where profit and private interests are prioritized over human rights, human health and the environment. The people living in these zones are disproportionately poor, marginalized and disempowered." Boyd, David R. Business, Planetary Boundaries, and the Right to a Clean, Healthy and Sustainable Environment. Report to the Human Rights Council, Fifty-fifth session, 26 Feb.-5 Apr. 2024, Agenda item 3, UN Doc. A/HRC/55/43. United Nations, 2024. At <https://docs.un.org/en/A/HRC/55/43>

^[v] Cultural Survival, The Violent Cartography of Lithium in Brazil: Indigenous and Traditional Communities Struggle with the Giant of Transition Minerals in Brazil. <https://www.culturalsurvival.org/news/violent-cartography-lithium-brazil-indigenous-and-traditional-communities-struggle-giant>

^[vi] CEDEFES, MPF recomenda consulta prévia a povos tradicionais e suspensão de mineração de lítio no Vale do Jequitinhonha (MG) <https://www.cedefes.org.br/mpf-recomenda-consulta-previa-a-povos-tradicionais-e-suspensao-de-mineracao-de-litio-no-vale-do-jequitinhonha-mg/>

^[vii] Cultural Survival, Pegmatito Xuxa Sigma Lithium S. A. Nota Técnica sobre os estudos ambientais para a ampliação do Projeto Grota Do Cirilo. https://cs.org/sites/default/files/An%C3%A1lise%20EIA_RIMA%20Sigma%20Lithium%2016042025.pdf

^[viii] Observatório da Mineração, The greenwashing behind Brazil's lithium boom. <https://observatoriodamineracao.com.br/the-greenwashing-behind-brazils-lithium-boom/>

^[ix] Cultural Survival, Researchers Report Serious Social and Environmental Harm in Minas Gerais Caused by the Activities of Sigma Lithium. <https://www.culturalsurvival.org/news/researchers-report-serious-social-and-environmental-harm-minas-gerais-caused-activities-sigma>

^[x] Sigma Lithium, Sigma Lithium environmental license for Barreiro Mine is awarded with unanimous approval, enabling continuous industrial-mining integrated operations throughout the 16-year term of development bank financing. <https://sigmalithiumcorp.com/sigma-lithium-environmental-licen,,se-for-barreiro-mine-is-awarded-with-unanimous-approval-enabling-continuous-industrial-mining-integrated-operations-througho,,ut-the-16-year-term-of-development-bank-fi/>

^[xi] According to the UN Department of Economic and Social Affairs the FPIC is based on the right to self-determination: "It is a fundamental principle in international law, embodied in the Charter of the United Nations and the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights. The standard, Free, Prior and Informed Consent (FPIC), as well as Indigenous Peoples' rights to lands, territories and natural resources are embedded within the universal right to self-determination. The normative framework for FPIC consists of a series of international legal instruments including the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the International Labour Organization Convention 169 (ILO 169), among many others, as well as national laws.

^[xii] International Labour Organization Convention 169 (ILO 169), Art. 6.

^[xiii] Observatório da Mineração, Vendido como "verde", lítio da canadense Sigma afeta indígenas e quilombolas no Jequitinhonha

<https://observatoriodamineracao.com.br/vendido-como-verde-litio-da-canadense-sigma-afeta-indigenas-e-quilombolas-no-jequitinhonha/#:~:text=Uma%20pedra%20tem%20valor%2C%20uma,a%20permacultura%20e%20a%20agroecologia.&text=A%20press%C3%A3o%20sobre%20comunidades%20como,cheGAR%20a%2018%25%20em%202023.&text=Chapada%20do%20Lago%20C3%A3o,Foto:%20MAB>

^[xiv] Constituição da República Federativa do Brasil de 1988, Art. 225, § 1º, IV. Available at: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm

^[xv] CONAMA, Resolução nº 001, de 23 de janeiro de 1986, Art. 6, II. Available at: http://conama.mma.gov.br/?option=com_sisconama&task=arquivo.download&id=745

^[xvi] Supreme Federal Court (Supremo Tribunal Federal), Direct Action of Unconstitutionality 4,529/MT, Reporting Justice Min. Rosa Weber, Full Court, decided on November 22, 2022, DJe-243, released on November 30, 2022, published on December 1, 2022. Available at: <https://portal.stf.jus.br/processos/detalhe.asp?incidente=3951713>

END NOTES

[xvii] Inter-American Court of Human Rights, Case of the Saramaka People v. Suriname, Preliminary Objections, Merits, Reparations, and Costs, Judgment of November 28, 2007, Series C No. 172. Available at: https://www.corteidh.or.cr/docs/casos/articulos/seriec_172_ing.pdf

[xviii] Cultural Survival, The Violent Cartography of Lithium in Brazil: Indigenous and Traditional Communities Struggle with the Giant of Transition Minerals in Brazil. <https://www.culturalsurvival.org/news/violent-cartography-lithium-brazil-indigenous-and-traditional-communities-struggle-giant>

[xix] Sigma Lithium Corporation, Sigma Lithium Announces a Positive Feasibility Study with Forecast LOM Net Revenue of US\$1.4 Billion and EBITDA of US\$ 690 Million for the High-Grade Low-Cost Xuxa Deposit. <https://www.globenewswire.com/news-release/2019/10/01/1923210/0/en/Sigma-Lithium-Announces-a-Positive-Feasibility-Study-with-Forecast-LOM-Net-Revenue-of-US-1-4-Billion-and-EBITDA-of-US-690-Million-for-the-High-Grade-Low-Cost-Xuxa-Deposit.html>.

[xx] BNDES, BNDES aprova R\$ 486,7 milhões para Sigma Lithium beneficiar lítio de forma sustentável. [https://agenciadenoticias.bndes.gov.br/industria/BNDES-aprova-R\\$-4867-milhoes-para-Sigma-Lithium-beneficiar-litio-de-forma-sustentavel/](https://agenciadenoticias.bndes.gov.br/industria/BNDES-aprova-R$-4867-milhoes-para-Sigma-Lithium-beneficiar-litio-de-forma-sustentavel/) <https://clima.info.org.br/2025/09/23/projeto-de-mineradora-questionado-pelo-mp-tenta-financiamento-do-bndes/>

[xxi] BNDES aprova R\$ 486,7 milhões para Sigma Lithium beneficiar lítio de forma sustentável [https://agenciadenoticias.bndes.gov.br/industria/BNDES-aprova-R\\$-4867-milhoes-para-Sigma-Lithium-beneficiar-litio-de-forma-sustentavel/](https://agenciadenoticias.bndes.gov.br/industria/BNDES-aprova-R$-4867-milhoes-para-Sigma-Lithium-beneficiar-litio-de-forma-sustentavel/)

[xxii] BNDES, Chapada do Lagoão is located in the municipality of Araçuaí, rich in fauna, flora and freshwater springs, the region functions as natural “water reservoir” for dozens of surrounding communities#. See also: Chapada do Lagoão: nada sobre o território sem ouvir quem o habita <https://www.brasilefato.com.br/colunista/jean-freire/2025/04/23/chapada-do-lagoao-nada-sobre-o-territorio-sem-ouvir-quem-o-habita/>

[xxiii] Brasil de Fato, Chapada do Lagoão: nada sobre o território sem ouvir quem o habita <https://www.brasilefato.com.br/colunista/jean-freire/2025/04/23/chapada-do-lagoao-nada-sobre-o-territorio-sem-ouvir-quem-o-habita/>

[xxiv] According to the State agency Xavante Special Indigenous Health District (DSEI Xavante): “it has a population of 25,364 Indigenous people, who live in 363 villages, distributed across 14 municipalities and 6 Base Centers”. <https://www.gov.br/saude/pt-br/composicao/sesai/planos-distritais-2024-2027/plano-distrital-xavante>

[xxv] According to Guilherme Theo Sampaio, director-general of the National Land Transport Agency (ANTT), the railway is expected to affect 11 municipalities: “We are talking about a railway that will boost regional development, reduce logistical costs, relieve highways, and significantly contribute to a cleaner and more efficient transport matrix.” See: <https://www.gov.br/antt/pt-br/assuntos/ultimas-noticias/ferrovia-que-ligara-goias-ao-mato-grosso-tem-35-das-obras-concluidas-e-ja-transforma-realidade-no-centro-oeste>

[xxvi] As part of the ongoing negotiations with the USA, the Brazilian government is offering not only the minerals, but also the infrastructure to transport it at low costs. See: CNN Brasil, Ministro confirma conversa com EUA sobre terras raras, mas pede soberania. <https://www.cnnbrasil.com.br/economia/macroeconomia/ministro-confirma-conversa-com-eua-sobre-terras-raras-mas-pede-soberania/>

[xxvii] “The construction of the Ferrovia de Integração do Centro-Oeste (FICO) is expected to impact 24 Indigenous Lands within the Legal Amazon, including 23 in Mato Grosso and one in Rondônia. A survey by InfoAmazonia further reveals that the railway will cross 105 springs and tributaries belonging to three major Brazilian river basins – the Xingu, Tocantins-Araguaia, and Tapajós – and could contaminate and destroy vital waterways essential to the region’s ecological balance.” ISA, Ferrovia de Integração Centro-Oeste afetará 24 terras indígenas em Mato Grosso e Rondônia. <https://terrasindigenas.org.br/pt-br/noticia/229242>

[xxviii] Programa de Parcerias de Investimentos (PPI), Corredor Ferroviário Leste-Oeste. <https://ppi.gov.br/projetos/corredor-ferroviario-leste-oeste/>

[xxix] Government of Brazil - Ministry of Transportation, Ferrovia que ligará Goiás ao Mato Grosso tem 35% das obras concluídas e já transforma realidade no centro-oeste. <https://www.gov.br/antt/pt-br/assuntos/ultimas-noticias/ferrovia-que-ligara-goias-ao-mato-grosso-tem-35-das-obras-concluidas-e-ja-transforma-realidade-no-centro-oeste>

[xxx] Katarzyna Górka, Colonial shadows – a systematic review of the Xavante health transformation. Int J Equity Health 24, 81. <https://doi.org/10.1186/s12939-025-02430-5>

[xxxi] Mongabay, Brazil soy deal that curbs Amazon deforestation to be suspended in 2026 <https://news.mongabay.com/short-article/2025/10/brazil-soy-deal-that-curbs-amazon-deforestation-to-be-suspended-in-2026/>

[xxxii] Raoni Rajão et al., The Rotten Apples of Brazil’s Agribusiness, Science, vol. 369, no. 6501, pp. 246–248. http://www.lagesa.org/wp-content/uploads/documents/Rajao_20_Rotten%20Apples_w_SM.pdf

Cultural Survival

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