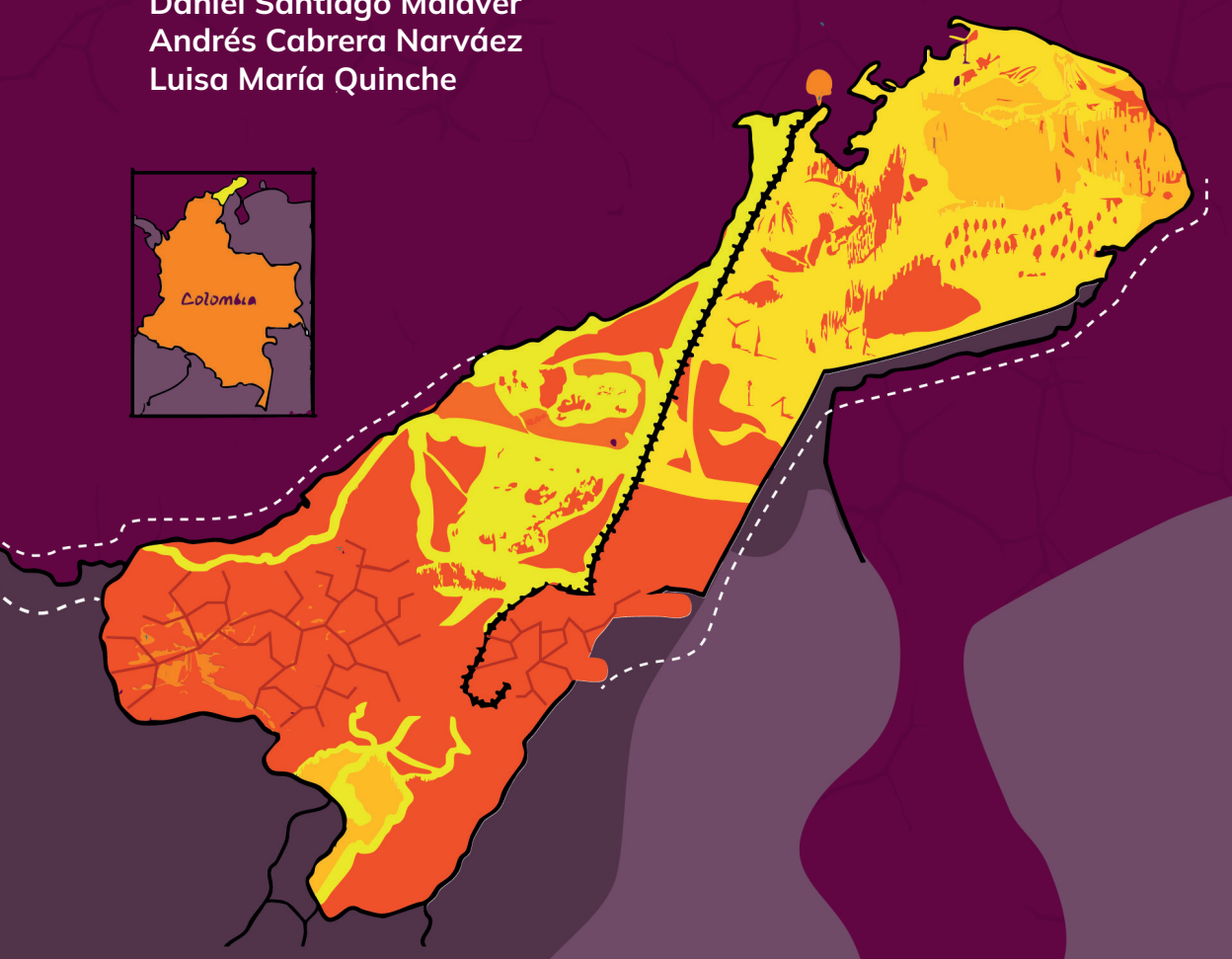
CENSAT AGUA VIVA

Climate Architecture & Corporate Impunity:

The Glencore's Climate Policy in La Guajira Case

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Mining conflicts

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Introduction

Climate crisis is not only a biophysical phenomenon, but also an expression of historic unequal production, consumption and accumulation patterns. Although average global temperature raised 1,1 °C between 2011 and 2020 regarding preindustrial levels (IPCC, 2023), institutional answers have privileged an emission metrics management. This reduction of production processes, historical responsibilities, and territorial damage to tons of CO_2 equivalent creates a climate architecture that, far from questioning the foundations of the fossil model, allows extractive corporations, such as Glencore, to reposition themselves as protagonists of the solution.

In Glencore's case, the announcement of their Colombian subsidiary, Carbones del Cerrejón, by 2024 does not necessarily represent a disruption with extractive model, but a strategic reorganization. Whilst the corporation adopts energetic transition narratives, instrumentalizes climate metrics to disguise the accumulated damages in La Guajira, as the erosion of 17 Streams, particulate matter pollution and erosion of biocultural bonds of Wayúu and Afro-descendant communities. So, technical management of emissions works as a veil towards ecologic and social responsibilities accumulated for more than 40 years of extraction.

This report develops a critical analysis of Glencore's and Carbones del Cerrejón' climate policies. Its purpose is to show that an action focused exclusively on management of greenhouse gases (GHG) results insufficient to answer for territory damage.

To do so it examines the governance, transparency and corporate reporting mechanisms that allow Glencore to project «net zero» targets for 2050, even though its profitability remains linked to fossil commodities and with reported emissions, for 2025, of 18.7 $MtCO_2e$ in scopes 1 and 2 and 381.2 $MtCO_2e$ in scope 3.

This global scaffolding is articulated with a national configuration in which monitoring and register state systems validate corporate narratives and displace historical responsibilities towards 381,2 abstract compensations, omitting territorial and hydric crises in La Guajira. The main objective of the research was to problematize the climate policies and actions of Glencore, showing how their goals are subordinated to politic and economic interests, and how the "transition minerals" speech legitimate new extractive frontiers and extend the enclave logic in Carbones del Cerrejón.

Methodologically speaking, the research combined the academical, theoretical, and corporate documentation revision in contrast with corporate speech and territorial knowledge of Wayúu and Afro-descendant communities. This triangulation allowed us to analyze Glencore as a global corporation, situating Carbones del Cerrejón as a subordinate territorialized expression of Colombia to the global economy, and confronting corporate notions as "forestry rehabilitation" with the effects observed by the communities.

The report is arranged in four moments. In chapter 2 we examine the centrality of carbon metrics and its limits to comprehend socio-ecologic crisis. In chapter 3 we developed Glencore's, Carbones del Cerrejón, and its climate policies characterization. In chapter 4 we confront those policies with climate justice, energetic transition, and socio-ecologic reparation principles. In chapter 5 we contrast corporate speech with perceptions and communal concerns.

In general, the report states that Glencore's climate policies operate as a global architecture of legitimation and that Carbones del Cerrejón works as their local expression. A fair energetic transition demands fixing at the core hydric justice, integral reparation, and territory autonomy, otherwise, corporate decarbonization can become a new phase of dispossession.

2.

How did we get here? Those responsible for the problem now claim to be solving it.

Over the years climate change has been explained by the sustained increase of atmospheric greenhouse gases (GHG), whose infrared retention capacity disrupts the energetic balance of earth. According to the Intergovernmental Panel on Climate Change (IPCC), human activity had caused global warming through the emission of these gases, with an increase of average temperature of earth's surface near 1,1 °C above levels of 1850-1900 than in the period between 2011-2020 (IPCC, 2023).

Under this viewpoint, climate change tends to be managed as a climate problem focused on measuring, reducing, compensating or removing GHG through technical, financial and regulation instruments (Lohmann, 2009; Bumpus & Liverman, 2008). This reading allows us to acknowledge the central dimension of global warming, but it focuses on climate actions in terms that can be only expressed in tons of CO_2 equivalent to (tCO2e) (Carton et al., 2021; Lohmann, 2009). Therefore, climate change should also be understood as a socio-ecological, historical, and political crisis associated to forms of production, extraction, consumption, and accumulation that depend on fossil fuels, minerals, intensive energy infrastructure, and unequal territory appropriation processes (IPCC, 2023; Newell & Mulvaney, 2013; Muttitt y Kartha, 2020).

This climate crisis management has structured global and Colombian governance surrounding mitigation goals, national obligations, monitoring, reporting, and verification systems, carbon market, compensations, and corporate divulgation schemes (UNFCCC, 2015; MinAmbiente, 2018). Within this framework emissions translate into productive processes, energetic decisions, technological changes, and territory projects in verifiable and comparable data (Lohmann, 2009; Carton et al., 2021), transforming carbon into a political and technical strategy that governments, international organizations, and corporations set responsibilities, announce commitments, and report advances (UNFCCC, 2015; World Resources Institute & World Business Council for Sustainable Development, 2004). However, this translation limits what is visible: that which can be expressed in tons of CO_2 equivalent circulates more easily in reports, records and markets, while the damages associated with the extraction of minerals and fossil fuels, water use, the transformation of ecosystems, the impact on livelihoods, and territorial conflict are relegated (Lohmann, 2009; Bumpus & Liverman, 2008; Carton et al., 2021).

In this sense, companies have acquired a relevant role in contemporary climate action, precisely because the measurement and communication of GHG emissions allows them to present themselves as agents capable of managing, reducing, or offsetting their climate impact through plans, targets, indicators, and reports (World Resources Institute & World Business Council for Sustainable Development, 2004; Megura & Gunderson, 2022). Thus, corporate climate policy is constructed in a language that combines efficiency, energy transition, technological innovation, offsetting, and sustainability (Megura & Gunderson, 2022; Paim, 2025). The central point, then, is to show how actors historically linked to extractive activities manage to reposition themselves within climate solution narratives, when they are not, as former President Gustavo Petro pointed out at the un General Assembly: "The market does not solve the climate crisis, let's be clear about that once and for all, because it itself produced it" (Petro, 2025).

Therefore, this section provides context for the climate crisis and the role that corporate actors have acquired in constructing narratives of solutions. The aim is to understand how companies historically linked to generating climate and territorial impacts are currently positioning themselves as agents of transition, sustainability, and climate action. To this end, the section develops four key points: i) the current state of the climate crisis, ii) the place of GHG emissions in contemporary climate governance, iii) international and national initiatives to address climate change, and iv) the role of governments and businesses.

2.1. Actual State of Climate Crisis

The climate crisis has already brought about observable changes in ecological and human systems. These changes have manifested themselves in the warming of the atmosphere, the ocean, and the land, that in turn has impacted extreme weather events, water availability, food security and sovereignty, health, infrastructure, communities, economies, and ecosystems. Table 1 summarizes the changes in ecological and human systems.

Table 1. Transformations in ecologic and human systems

Climate System Component	Observed Changes	Ecological and Human Effects
Atmosphere and water cycle	Surface warming, changes in precipitation and humidity	Droughts, floods, extreme weather events, impacts on health, agriculture, and water
Ocean	Increased heat content, changes in salinity, acidification	Damage to marine ecosystems, fisheries, coastlines, and food sovereignty
Cryosphere	Loss of sea ice, reduced snow cover, glacier retreat	Changes in water availability, risks to mountainous regions, sea-level rise
Carbon cycle	Changes in CO_2 concentrations and cycles	Climate feedbacks, pressure on ecosystems and natural sinks
Land climate	Increased warming over land	Heat stress, soil degradation, impacts on agriculture, health, and livelihoods

Source: IPCC (2023).

These transformations show that the climate crisis goes beyond emissions measurements and manifests itself in impacts on water, ecosystems, health, infrastructure, food security, and livelihoods (IPCC, 2023). However, these impacts do not affect the population or different regions uniformly. Vulnerable communities that have historically contributed the least to climate change are now the ones most disproportionately affected by its impacts (IPCC, 2023). In fact, vulnerability increases in contexts marked by poverty, limited access to basic services, conflict, dependence on climate-sensitive livelihoods, marginalization, inequality, and historical forms of inequity, including colonialism (IPCC, 2023). For this reason, the climate crisis reveals a geography of responsibilities, benefits, and harms that demands we ask not only how much GHG is emitted, but also who sustains the production and consumption models driving the climate crisis, who has benefited from these models, and who, in turn, survives their consequences —if they do at all— precisely because the effects of the climate crisis jeopardize future generations.

In this regard, Muttitt & Kartha (2020) argue that a fair response to the climate crisis requires consideration of the historical responsibility associated with the extraction and consumption of fossil fuels, as well as the differing capacities of countries and actors to phase out these activities. This discussion takes on a clear geopolitical dimension when one considers that China, the United States, and India account for 42.6% of global greenhouse gas emissions, while the 100 countries with the lowest emissions represent just 2.9% of the global total (WRI, 2023). This asymmetry shows that the energy transition cannot be demanded uniformly, as countries with greater historical responsibility, greater economic clout, and greater technological capacity —as the United States and European countries— have differentiated obligations compared to those that, although they have contributed only marginally to the climate crisis, face its impacts disproportionately.[1]

Given these circumstances, the persistence of the climate crisis cannot be explained solely by a lack of information, technological delays, or insufficient international coordination. It also reflects power relations that perpetuate the economic, energy, and political conditions of the fossil-fuel-based order (Alizart, 2020). In this regard, debt plays a structural role, as it has reinforced the dependence of many countries in the Global South on extractive activities aimed at generating foreign exchange. As Peña (2025) points out, to service their debt, various governments in the Global South are pressured to expand the extraction of natural common goods —as minerals, fossil fuels, monocultures, and timber—exacerbating deforestation, pollution, land appropriation, and subordination to global financial capital. In the case of Colombia, this approach helps us understand how coal has functioned as a strategic source of foreign exchange and as a pillar of an extractive economy linked to the payment of external obligations. From this perspective, the defense of fossil fuels, regulatory delays, the undermining of historical responsibilities, and the production of transition discourses can function as mechanisms for preserving interests associated with coal accumulation (Peña, 2025).

1 Tuvalu exemplifies this climate inequality. Despite its negligible emissions, it faces rising sea levels, salinization, and a loss of habitability. Its vulnerability shows that a just transition is not limited to technological change but requires defining who reduces emissions first, who finances and compensates for damages, and who participates in decision-making, since every transition involves disputes over power, distribution, employment, territories, and development models (Newell & Mulvaney, 2013).

In areas historically affected by extractive activities, climate impacts overlap with land-use changes caused by mining, infrastructure, intensive water use, pollution, resettlements, loss of livelihoods, and land conflicts. These damages are not always expressed in terms of climate change mitigation and its standard unit —metric tons of CO_2 equivalent— but they define how communities and ecosystems experience the crisis. For this reason, analyzing the climate crisis in extractive contexts requires considering the differentiated impacts on, among other things, water, biodiversity, health, livelihoods, territory, territorial autonomy, participation, and reparations.

In this context Martínez-Alier (2021) shows that many environmental conflicts arise when the ecological costs of extraction, production, or consumption fall on communities with less decision-making power over the projects that transform their territories. Svampa (2019) points out that Latin American neo-extractivism has intensified disputes over common goods, territories, and life forms, while simultaneously producing discourses of development, progress, and investment that seek to legitimize extractive expansion. From this perspective the climate crisis is intertwined with pre-existing territorial conflicts and with forms of accumulation that affect ecosystems, local economies, and community relations. Consequently, the current state of the climate crisis goes beyond GHG emissions. While emissions remain a central indicator for understanding global warming, their impacts are diversifying and manifesting in territories, bodies, ecosystems, infrastructure, and livelihoods. This perspective is key to evaluate corporate climate action, as it allows us to contrast the commitments outlined in reports, targets, and indicators with the social, ecological, and territorial harms that fall outside their primary metrics.

2.2. The Ambivalent Character of Emissions

GHG emissions play an ambivalent role in contemporary discussions about climate change. Measuring them allows different gases —carbon dioxide, methane, nitrous oxide, or hydrofluorocarbons— to be expressed in a common unit called tCO_2e. This standardization facilitates comparison, reporting, and carbon accounting, but it also reduces the diversity of gases, production processes, affected territories, and socio-ecological damages to an abstract unit susceptible to economic circulation. From a critical perspective this approach is not neutral, as it allows the climate crisis to be managed through

market-based instruments, offsets, carbon credits, and financial mechanisms that promise to address the damage caused by the dominant economic model without fundamentally transforming the modes of production, extraction, and consumption that generate it. In this sense, the centrality of CO_2e can expand the capacity for climate measurement, but it can also reduce the visibility of other forms of ecological, social, and territorial harm that are not expressed with the same force in carbon accounting.

This ambivalence is evident in the scientific assessment of climate change itself. The latest IPCC report (2023) notes that average annual global emissions during 2010–2019 were higher than in any previous decade and that, in 2019, net anthropogenic emissions reached approximately 59 $GtCO_2$-e. This evidence highlights the importance of emissions in understanding the behavior of global warming and defining mitigation actions. At the same time, the IPCC (2023) cautions that GHG metrics express different gases in a common unit and that every metric has limitations, as it simplifies the complexity of the climate system and its response to past and future emissions.

The relationship between economic growth and emissions shows that the climate crisis depends not only on the volume of economic activity, but also on the organization of the economy, its energy mix, and the distribution of profits in carbon-intensive sectors. The Kaya Identity links emissions to population, gdp per capita, energy intensity, and carbon intensity; therefore, income growth drives up emissions when it is not accompanied by sufficient efficiency and decarbonization (IPCC, 2023). Although the global economy grew by more than 3% in 2024 and energy emissions rose by only 0.8%, emissions peaked at 37.8 $GtCO_2e$, indicating that decoupling remains insufficient (IEA, 2025). Furthermore, few countries have managed to sustainably decouple gdp from emissions associated with both production and consumption, and even in high-income economies, the reductions observed remain far from the Paris Agreement trajectory (Hubacek et al., 2021; Vogel & Hickel, 2023). This concentration is also evident at the corporate level: in 2024, 166 oil, gas, coal, and cement producers were linked to 34.7 $GtCO_2e$, and only 32 companies accounted for more than half of fossil fuel and cement emissions (InfluenceMap, 2026). Therefore, the discussion must not only focus on the carbon intensity of growth but also on how determined

sectors and companies continue to accumulate profits while shifting their climate costs onto the most vulnerable regions.

This concentration of climate-related benefits and responsibilities is also reflected geographically in the global chains of fossil fuel extraction and consumption. The separation between extraction territories and receiving markets constitutes a form of ecologically unequal exchange. In 2024, 74.27% of the fob value of thermal coal exports registered under the names of Cerrejón Zona Norte S. A. and Carbones del Cerrejón Limited was shipped to Asia, primarily to China, Turkey, and South Korea, while Europe received 15.95%, with the Netherlands, Spain, and Germany among its most significant destinations. In 2025 Asia's share declined to 33.95%, although South Korea remained one of the main destinations, along with Turkey and India. In contrast, Europe's share increased to 27.03%, driven mainly by shipments to the Netherlands, Spain, and Germany, while North America's share rose from 1.93% to 15.78%, due primarily to growth in exports to Mexico (DIAN, n.d.). These flows show that the energy and economic value embedded in the coal mined in La Guajira circulates toward external industrial and energy markets, while the water-related, ecological, health, and territorial costs of extraction remain within the region. This asymmetry reduces the territorial visibility of the fossil metabolism of the recipient economies and contributes to shifting their environmental burdens onto communities with little decision-making power over global production and consumption chains (Rice, 2007; Givens, 2019; Dorninger et al., 2021).

That said, from a mitigation perspective, emissions make it possible to set targets, identify priority sectors, and evaluate the progress of climate policies. Climate action is structured around reduction deadlines, carbon budgets, decarbonization scenarios, low-emission technologies, neutrality commitments, and offset mechanisms. This logic points to an environmental hierarchy where prevention should come first, followed by mitigation, remediation, and compensation. However, many climate strategies tend to focus on reducing, correcting, or compensating impacts rather than on avoiding the sources that generate them. The Paris Agreement solidified the role of national targets by establishing Nationally Determined Contributions (NDCS) as the mechanism through which countries communicate their priorities and levels of climate ambition. The IPCC acknowledges that the UNFCCC, the Kyoto Protocol,

and the Paris Agreement have helped raising national ambition and expanding climate policies at various levels of government, particularly through targets, transparency, and reporting on climate actions (IPCC, 2023; UNFCCC, 2015). In this context, the growing importance of carbon markets, certificates, and compensations require an assessment of whether mitigation reduces absolute emissions at the source or merely allows for the accounting-based continuation of carbon-intensive activities.

Adaptation introduces a different dimension to climate action; while mitigation focuses on reducing sources or increasing sinks of greenhouse gases, adaptation seeks to reduce the vulnerability of territories, communities, infrastructure, and ecosystems to climate impacts that are already occurring or are considered foreseeable. However, this response continues to face a significant funding gap. The United Nations Environment Programme estimates that developing countries will require between USD 310,000 million and USD 365,000 million annually for adaptation by 2035, while international public funding allocated for this purpose amounted to just USD 26,000 million in 2023 (UNEP, 2025).

This shortfall is even more critical when considering loss and damage, those impacts that cannot be prevented through mitigation or reduced through adaptation. In this regard, the report The Cost of Delay notes that, by 2021, government funding specifically announced for loss and damage amounted to a mere $16 million, a negligible figure compared to the $525 billion in economic losses associated with climate change faced by G20 countries between 2000 and 2019 (Loss and Damage Collaboration, 2022). Consequently, a climate policy focused exclusively on emissions may show partial progress in mitigation while, at the same time, offering limited responses to damage affecting water, health, infrastructure, food, livelihoods, and the continued presence of communities in their territories. The contemporary climate debate therefore requires coordinating mitigation, adaptation, and financing for loss and damage, so that emissions reductions are accompanied by effective local capacities and sufficient, new, and additional resources to address the social and economic costs of the climate crisis.

In fact, the energy transition lies at that crossroads. In public debates is often presented as the shift from fossil-fuel-based systems to energy sources with

lower emissions. This helps identifying the technological changes needed in the electricity, transportation, industrial, and building sectors. However, the transition must also involve decisions regarding minerals, infrastructure, employment, territories, financing, access to energy, and the distribution of costs. Newell & Mulvaney (2013) show that a just transition requires analyzing who bears the costs of change, who participates in decision-making, and which sectors or communities are exposed to new forms of inequality. Therefore, a just energy transition must also seek to reorganize value chains, material demands, extraction territories, and labor relations. This discussion links the energy transition to climate justice, as decarbonization pathways also depend on how historical responsibilities, economic capacities, and the territorial costs of change are distributed.

At this point carbon accounting allows us to pinpoint the critical core of the ambivalence under analysis. By framing climate, ecological, and territorial conflicts as issues of measurement, equivalence, and management, this accounting can sideline substantive questions about justice, the permanence of reductions, corporate power, and territorial reparations (Lohmann, 2009; Bumpus & Liverman, 2008; Carton et al., 2021). Therefore, the problem does not lie in measuring emissions, but in assuming that this measurement is sufficient to evaluate climate action. In territories affected by extractive activities, reduction, compensation, or removal goals must be weighed against the material conditions under which business operations take place. From this perspective, the climate indicators reported by companies must be evaluated alongside their impacts on water, land, ecosystems, communities, livelihoods, and reparations.

2.3. International and National Initiatives to Face Climate Change

International and national initiatives to address climate change have established a framework of progressive commitments, differentiated responsibilities, and monitoring rules. From the Kyoto Protocol to the Paris Agreement, climate governance has shifted toward frameworks by which states report goals, update their ambition, and endorse their progress through information and verification systems. In Colombia, this architecture is embodied in the NDC, the Monitoring, Reporting, and Verification (MRV) system, and RENARE,

instruments that link international commitments with national procedures for recording, recognizing, and tracking mitigation actions. In this way, climate action is framed within an institutional language that allows for the organization of public commitments, but also defines which actions gain visibility within the national climate accounting system.

A key precursor to this framework was the Kyoto Protocol, adopted in 1997, that translated the principle of common but differentiated responsibilities into stricter obligations for industrialized countries, particularly through emission reduction or limitation targets for the countries listed in Annex I of the Convention. In addition, it incorporated instruments designed to ensure compliance with those targets, as emissions trading, joint implementation, and the Clean Development Mechanism. Although the Paris Agreement reorganized this framework under a broader and more universal scheme, where all countries submit nationally determined contributions, the political commitment to equity and the differentiation of responsibilities has not disappeared; rather, it has been reformulated based on differing capacities, national circumstances, and levels of responsibility in the face of the climate crisis.

The Paris Agreement is the primary international framework for climate action. This agreement, adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), sets forth the goal of keeping the global average temperature rise below 2 °C above pre-industrial levels and pursuing efforts to limit it to 1.5 °C. To this end, it guides the global response through progressive commitments to mitigation, adaptation, financing, transparency, and international cooperation (UNFCCC, 2015). Its significance lies in the fact that it shifts climate action toward a framework of national commitments that must be updated periodically and become increasingly ambitious.

In this regard, the NDCs are the instrument through which each country communicates its commitments under the Paris Agreement. Through them, countries present their emission reduction targets, adaptation priorities, means of implementation, and support needs. In Colombia, the 2020 NDC update incorporated three components: greenhouse gas mitigation, adaptation to climate change, and means of implementation; and it also established the

goal of reducing greenhouse gas emissions by 51% by 2030 compared to the baseline scenario, a commitment that was subsequently enshrined in Law 2169 of 2021 on climate action and carbon neutrality (MinAmbiente, 2020; Congress of Colombia, 2021). More recently, the declaratory version of NDC 3.0, presented in 2025, reaffirmed the national target for 2030 and incorporated new commitments for 2035, although it continues to face the central challenge of translating these targets into action plans with verifiable financing, implementation, and monitoring (Comisión Intersectorial de Cambio Climático, 2025). In this way, the NDC serves as a bridge between the international framework of the Paris Agreement and national climate planning.

This logic requires information systems capable of tracking climate actions. As a result, monitoring, reporting, and verification have become central elements of climate governance. In general, these systems make it possible to record actions, estimate emissions reductions, assess progress, and avoid problems as double counting. However, these capabilities were not initially developed in a symmetrical manner across all countries. Under the Kyoto Protocol, GHG accounting, reporting, and emissions markets were primarily associated with the industrialized countries listed in Annex I of the Convention and with the mechanisms created to ensure their compliance with their targets. With the Paris Agreement this approach expanded into a more universal framework for transparency and reporting, where all States must communicate their national commitments and strengthen their monitoring capabilities.

In Colombia these commitments are translated into tools for recording, monitoring, and accounting for mitigation actions. Resolution 1447 of 2018 established regulations for the MRV System, the GHG Emission Reduction and Removal Accounting System (SCRR-GHG), and RENARE, applicable to public or private initiatives seeking to access results-based payments or offsets derived from emission reductions or removals (MinAmbiente, 2018). Subsequently, Resolution 0418 of 2024 assigned the administration of RENARE to the Ministry of the Environment (MinAmbiente), and in 2025, the agency announced its gradual reactivation in compliance with this regulation, Article 230 of Law 2294 of 2023, and Resolution 1447 of 2018 (MinAmbiente, 2024; 2025). However, until today there has been no evidence of RENARE's reactivation for proponents of mitigation initiatives, nor is the platform active for the public.

These tools demonstrate that national climate action requires data and record-keeping infrastructure. Mitigation initiatives must be formulated, recorded, monitored, and reported in accordance with a set of rules that allow for their incorporation into the country's climate accounting. This framework is essential for tracking the NDC, aligning national commitments with public and private initiatives, and generating information for decision-making. It also allows various territorial, sectoral, or corporate actions to be presented as measurable contributions toward national climate goals.

Carbon accounting plays a central role here, as it enables the management of GHG reductions and removals under common rules, so that they can be compared, aggregated, and reported. Its function is to ensure the traceability of climate outcomes and prevent issues such as double counting, overlaps, or estimates of carbon reductions outside national reference levels. In Colombia's case, RENARE and the MRV System serve as tools that link projects to national and international commitments. Thus, a localized initiative can be translated into results expressed in metric tons of CO_2 equivalent and linked to national targets, market-based instruments, results-based payment schemes, offset mechanisms, or progress reports.

Based on the foregoing, international and national initiatives to address climate change establish an institutional framework through which governments, businesses, and other stakeholders present their climate actions. By defining what should be measured, how it should be reported, and under what conditions it can be verified, these instruments transform climate commitments into public information, institutional records, performance indicators, and accountability narratives. This framework will be relevant for analyzing corporate climate policy, as many companies engage with it through targets, reports, mitigation projects, offsets, or climate contribution statements.

2.4. The Role of the States and Companies

Relationships among states, international organizations, businesses, markets, and civil society are key to shape contemporary climate action. Within this framework States define international commitments, adopt national targets, create regulations, design public policy instruments, manage information systems, and establish monitoring mechanisms. Companies participate

through decarbonization plans, sustainability reports, emissions reduction targets, offset mechanisms, technological investments, and narratives on the energy transition. This relationship demonstrates that climate policy is shaped within a space of constant interaction between government regulation and corporate action. And it is thanks to the Paris Agreement that this framework, in which nations communicate their commitments, update their targets, and report on progress, was consolidated (IPCC, 2023; UNFCCC, 2015).

Public policy operates in a field shaped by institutional capacities, economic interests, sectoral pressures, and social disputes. Governments set climate goals and establish conditions to ensure that these goals are achievable, verifiable, and compatible with social rights and expectations as well as the protection of territories. This involves regulating carbon-intensive sectors[2] , guiding the energy transition, strengthening information systems, preventing double counting of reductions, overseeing compensation mechanisms, and requiring consistent reporting on impacts, risks, and responsibilities. In this regard, government climate action must create conditions for accountability and transparency, in addition to promoting commitments.

From this perspective, corporate climate action must be analyzed in relation to the continuity of the fossil fuel order (Malm, 2020). Carbon-intensive companies not only respond to the climate crisis through policies, targets, and reports, but they may also participate in reshaping their own legitimacy within that crisis. Therefore, the problem is not merely a matter of verifying whether a company declares reduction targets, adopts reporting standards, or finances offset mechanisms. The central question is whether these actions alter the material structure of its business or whether they allow it to maintain that structure under a renewed rhetoric of transition, efficiency, and sustainability.

2 According to Colombia's National Inventory of Atmospheric Emissions and Removals, the economic sectors or groups with the highest emissions in the 2021 inventory were forest land management, with approximately 102,000 kt CO_2eq; agriculture and livestock, with 53,800 kt CO_2eq; transportation, with 38,800 kt CO_2eq; mining and energy, with 28,900 kt CO_2eq; and industry, with 28,370 kt CO_2eq. Within this group, the mining and energy sector is particularly significant because its emissions stem not only from combustion, mainly methane, in addition to coque production included in the estimate presented by the In In Energetica inventory, but also from fugitive emissions associated with oil and gas production and coal mining (Ideam, 2024).

In this context, companies have carved out a niche for themselves within climate action. Many companies present climate policies, transition plans, net-zero emissions targets, sustainability reports, GHG inventories, and offset projects. In these inventories, the World Resources Institute and the World Business Council for Sustainable Development, in their Greenhouse Gas Protocol (2004; 2011), distinguish three scopes for corporate accounting and reporting (see Table 2). This classification helps structure corporate emissions reporting and, at the same time, raises questions about the actual scope of corporate climate responsibility, especially when the most significant emissions occur outside the company's direct operations. In Colombia, the NTC-ISO 14064-1:2020 standard classifies these emissions as direct and indirect GHG emissions.

Table 2 : Types of emissions and scopes

NTC-ISO	Protocol	Description
GHG direct emissions	Alcance 1: Emisiones directas de GEI	These emissions come from sources owned or controlled by the company. For example, emissions from combustion in boilers, furnaces, vehicles, etc., that are owned or controlled by the company; emissions from chemical production in the company's own or controlled process equipment (p. 29).
Indirect GHG emissions	Scope 2: Indirect GHG emissions associated with electricity	This includes emissions from the generation of electricity purchased and consumed by the company. Purchased electricity is defined as electricity that is bought or brought within the company's organizational boundary. Scope 2 emissions physically occur at the facility where the electricity is generated (p. 29).
	Scope 3: Other indirect emissions	These emissions result from the company's activities but occur at sources that are neither owned nor controlled by the company. Examples of Scope 3 activities include the extraction and production of purchased materials; the transportation of purchased fuels; and the use of products and services sold (p. 29).

Source: Prepared by the author based on NTC-ISO 14064-1:2020 and the World Resources Institute and the World Business Council for Sustainable Development (2004, 2011).

These tools enable companies to demonstrate that their activities align with the concepts of mitigation, efficiency, technological innovation, and sustainability. The literature on corporate climate action shows that corporate reports serve as mechanisms through which companies explain their social role, manage the expectations of external stakeholders, and build legitimacy with investors, regulators, communities, and consumers (Boiral, 2013; Cho et al., 2015; Megura & Gunderson, 2022).

Tension arises when corporate climate action is situated between regulatory obligations that are still incomplete, institutional initiatives under development, and voluntary commitments defined by the companies themselves[3] . In Colombia, Law 2169 of 2021 established the Mandatory Greenhouse Gas Emissions Report (ROE), the Financial Superintendency has made progress on guidelines for disclosing information on environmental and social issues, including climate-related ones, for securities issuers and the Superintendency of Companies has promoted corporate sustainability reporting, although the latter remains primarily voluntary. However, these instruments do not always guarantee verifiable transformations in companies' operations, technologies, and production models. Consequently, voluntary reporting frameworks and carbon markets can improve the availability of information but may also create asymmetries between what a company chooses to disclose and what affected communities, authorities, or stakeholders need to know. This tension deepens when companies prioritize carbon offsets over direct reductions in their emissions, even though integrity standards (the *Oxford Principles for Net Zero Aligned Carbon Offsetting, the VCMI Claims Code of Practice, and the SBTi's Corporate Net-Zero Standard*) specify that offsets should be complementary and targeted specifically at residual emissions, once internal reduction measures have been exhausted. Therefore, climate accountability requires evaluating the consistency between goals, investments, technological changes, operations, territorial impacts, the use of compensations, and remediation mechanisms.

This tension has been discussed in the literature on greenwashing. Delmas & Burbano (2011) note that greenwashing arises when there is a gap between a company's environmental performance and its positive communication about

3 Sometimes, voluntary commitments to disclose information on climate-related issues stem from compliance with standards as those of the Global Reporting Initiative (GRI) or the International Sustainability Standards Board (ISSB).

that performance. Lyon & Montgomery (2015) show that these practices can take various forms, ranging from selective claims to broader reputation-building strategies. In the climate context this discussion takes on particular significance because companies may communicate commitments to reduction, carbon neutrality, or transition while continuing carbon-intensive activities, relying on compensations, or shifting the emphasis toward future actions. The United Nations High-Level Expert Group on Net-Zero Emissions Commitments by Non-State Actors warns that corporate commitments must be based on integrity, verifiable plans, short-, medium-, and long-term goals, effective emissions reductions, and clear limits on the use of compensations (United Nations High-Level Expert Group, 2022).

The relationship between governments and companies must be analyzed through the lens of the tension between regulation and legitimization. Governments establish rules, reporting systems, and monitoring mechanisms, while companies use these frameworks to present their climate strategies. This relationship can help systematize information, mobilize resources, and drive technological change. It can also create areas of ambiguity when regulatory frameworks allow voluntary commitments, compensations, or corporate reporting to take on the appearance of climate responsibility without transforming the territorial and productive conditions that cause harm. Therefore, the central question is to examine how these goals relate to a company's business model, operations, investments, impacts, and obligations toward communities and territories.

In the case of extractive companies this question is crucial. These actors have historically been involved in activities associated with the extraction of fossil fuels and minerals, energy-intensive infrastructure, and territorial transformation. They present themselves as agents of transition, suppliers of minerals for low-carbon technologies, financiers or users of emission reduction and removal projects, and actors committed to sustainability. These projects may be associated with the AFOLU[4] sector, through forestry, agriculture, or land-use initiatives, but also in sectors as energy, industry, and hydrocarbons[5] , through

4 Agriculture, Forestry, and Other Land Use.

5 These types of projects include initiatives such as "On-site Electric Power Supply through Generation Using Associated Gas for the Casabe Peñas Blancas Field," "Project for the Recovery and Use of Casinghead Gas from the La Cira Field," and "Technical and Economic Energy Dispatch in the GRB," all of which are aimed at reducing emissions in the hydrocarbons sector.

energy efficiency measures, fuel substitution, or the utilization of gases that generate tradable credits in carbon markets. This dual stance requires comparing corporate rhetoric with the reality of its operations. Corporate climate action must be evaluated based on its reduction targets and reports, along with its impacts on water, land, ecosystems, health, livelihoods, participation, and reparations.

Thus, the role of governments and companies in contemporary climate action reflects a relationship of interdependence and conflict. Governments define the regulatory and institutional framework, while companies produce discourses, indicators, commitments, and transactions that seek to position them within narratives of climate solutions. This tension deepens with the expansion of carbon markets, where offsets[6] and certificates can function as instruments to finance emissions reductions or removals, but also as tradable assets that turn carbon into a commodity and create economic circuits around the measurement, certification, intermediation, and commercialization of offsets. In carbon-intensive sectors, as hydrocarbons and mining, these mechanisms can open up new sources of revenue or climate legitimacy without fundamentally transforming emissions-generating operations. Therefore, accountability emerges as the intersection between these two spheres: public regulations, verifiable information, transaction traceability, and the effective participation of affected communities are necessary conditions for assessing whether corporate climate action produces tangible transformations or merely serves as a strategy for legitimization and economic reproduction.

6 Offset refers to carbon offsets, the mechanism by which greenhouse gas emissions generated by an organization or activity are offset through reductions, avoided emissions, or removals occurring outside the source that generates those emissions and represented by carbon credits (Lovell & Liverman, 2010; Peña, 2024).

3.

The Diverse Faces of Capital: Glencore in the World and Carbones del Cerrejón in Colombia

3.1. About Glencore: The Headquarters of Extraction

Glencore is a transnational corporation engaged in the global extraction, processing, and marketing of natural resources and commodities. Its operations encompass two closely related areas. On the one hand, it operates extractive and production assets related to metals, minerals, and energy, including exploration, project acquisition and development, mining, beneficiation, processing, smelting, refining, and the production of raw materials. On the other hand, it acts as a marketer, intermediary, and logistics operator for more than 60 commodities through activities as sourcing, transportation, storage, blending, quality optimization, regional arbitrage, and delivery to industrial customers (Glencore, 2024a; 2025; 2026). This integration allows the company to operate at various stages of the value chain: it extracts resources from the ground, processes or refines them as appropriate, transports them via its own or contracted infrastructure, and distributes them globally by capitalizing on differences in price, availability, quality, location, and demand. Its portfolio includes metals as copper, nickel, zinc, cobalt, aluminum, vanadium, gold, silver, and ferroalloys, along with other mineral resources and energy products as thermal coal, metallurgical coal, oil, gas, and derivatives. Consequently, Glencore cannot be understood solely as a mining company, but rather as a global corporation focused on transforming territories, mineral deposits, energy, labor, logistics, and market information into international commodity flows (Foster et al., 2011; Suwandi & Foster, 2016; Harvey, 2004).

Glencore's international presence reflects a form of global economic occupation based on the extraction, processing, circulation, and commercialization of natural common goods that are strategic for capitalist development (Suwandi & Foster, 2016; Gudynas, 2015). The multinational, headquartered in Switzerland, operates on six continents, in more than 30 countries, with a workforce of over 140,000 people, including employees and contractors, and with a territorial distribution that combines corporate headquarters, commercial offices, and extraction sites (see Figure 1). This global footprint is not neutral; its operations are located in territories where value creation depends on access to minerals, coal, oil, gas, water, energy, rail infrastructure, ports, public permits, labor relations, and community agreements. Therefore, its international expansion must be understood as a network of intensive extraction with high socio-ecological sensitivity, where revenue generation is sustained by complex

relationships with local communities, unions, governments, regulators, social organizations, banks, investors, and industrial customers. The company's very structure demonstrates that its operations require managing conflicts related to local employment, regional procurement, operational impacts, health and safety, environmental management, tailings, mine closure, private or public security, human rights, climate change, tax payments, and the social license to operate (Glencore, 2024a; 2025; 2026). To that extent, countries as Colombia, Peru, Chile, Argentina, the Democratic Republic of the Congo, South Africa, Australia, Canada, Equatorial Guinea, and Cameroon do not appear merely as locations for business operations, but as extraction territories where corporate profitability is intertwined with disputes over resources, environmental impacts, labor conditions, public regulation, and social legitimacy (Gudynas, 2015).

Glencore is at the center of the contemporary debate on climate change because its business does not simply consist of "accompanying" the energy transition, but rather of maintaining a global platform for the extraction, processing, marketing, and circulation of natural common goods that generate emissions throughout its entire value chain. The transnational corporation operates within a structural paradox: it presents itself as a supplier of minerals necessary for low-carbon infrastructure, yet at the same time maintains a portfolio of commodities centered on fossil fuels, metallurgical coal, gold, copper, nickel, and other commodities whose extraction, processing, transportation, and end use exacerbate the climate crisis.

Figure 1. Map of Glencore's Global Presence



Source: Compiled by the author based on Glencore's 2025 Sustainability Report.

Glencore's direct emissions reflect the impact of its own industrial operations, while its Scope 3 emissions show the much greater impact of the subsequent uses of the products it extracts and markets, whether in industrial processes, power generation, residential consumption, transportation, or global manufacturing chains. In 2025 the company reported 18.7 million metric tons of CO_2e in Scope 1 and 2 industrial emissions, and 381.2 million metric tons of CO_2e in Scope 3 industrial emissions, confirming that the most significant climate impact of its operations is associated with the destination and use of the commodities it brings into global circulation (Glencore, 2026). This difference of nearly 1,900% between its direct and indirect emissions is central: the climate challenge for Glencore extends beyond the efficiency of its mines, plants, or logistics assets; rather, it lies in the fact that its revenue model depends on enabling and expanding material flows that, when burned, processed, or incorporated into energy-intensive industrial systems, shift their impacts to other territories, consumers, nations, and a shared atmosphere. Table 3 presents the emissions trend reported in its sustainability reports.

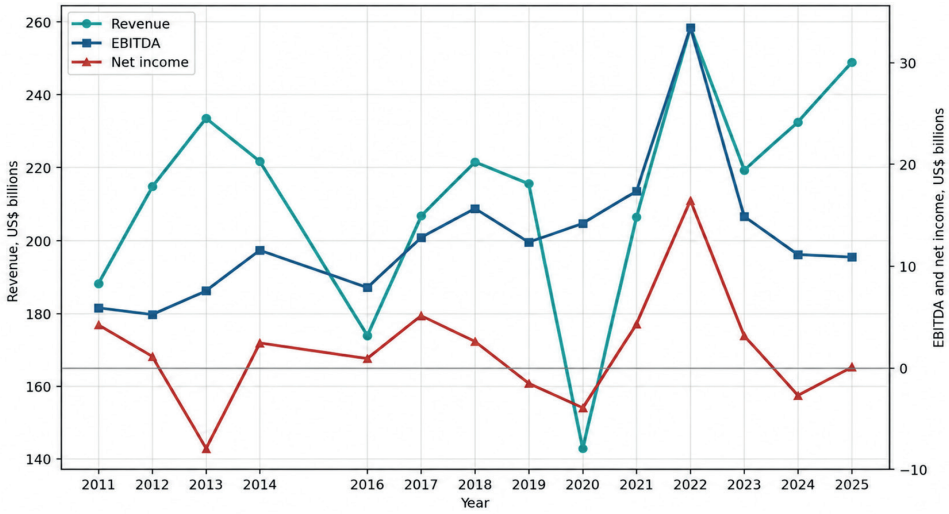
Table 3. Emissions trend reported by Glencore

Year	Scope 1	Scope 2	Scope 1 + 2	Scope 3	Total Scopes 1, 2 y 3	Scope 3 Percentage
2019	20,7	13,8	34,4	512,0	546,5	93,7%
2020	16,4	11,4	27,9	408,1	436,0	93,6%
2021	17,1	12,8	29,9	407,3	437,2	93,2%
2022	17,4	12,7	30,0	363,3	393,4	92,4%
2023	18,1	10,1	28,2	401,8	430,1	93,4%
2024	16,2	10,9	27,1	389,3	416,4	93,5%

Source: Glencore (2022; 2025).

From a financial perspective, Figure 2 shows a company that generates high revenue based on the appropriation and global marketing of natural common goods as commodities, but one that is exposed to high volatility associated with the international price cycle. Glencore's revenue remains at high levels throughout the period, with declines during downturns and rebounds during favorable economic conditions, particularly between 2021 and 2022. This trajectory is not solely due to the company's internal management but also to its presence in markets that are highly sensitive to geopolitical, energy, and trade shocks. The rise in thermal coal prices in 2022 was linked to the Russian invasion of Ukraine, rising gas prices, and the perceived risk of energy shortages; similarly, metals as nickel, aluminum, and zinc faced pressure due to the war, sanctions, energy costs, and the exposure of their supply chains to Russia. More recently, tensions in the Middle East and around the Strait of Hormuz have shown how risks to strategic energy routes can be passed on to energy prices. In this regard, Glencore's ability to generate revenue does not stem from linear and stable growth, but rather from its presence in global markets where corporate profitability depends on the extraction, marketing, and financial valuation of commodities subject to geopolitical conflicts, supply disruptions, and abrupt price fluctuations..

Figure 2. Trends in revenue, EBITDA and net income, 2011 - 2025



Source: Prepared by the author based on financial information from EMIS (2026). Glencore plc series, 2011-2025.

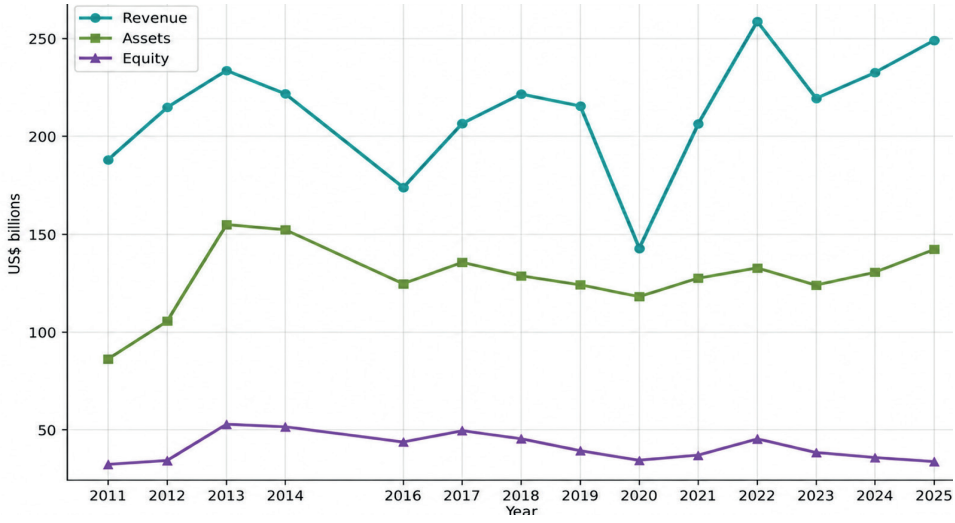
EBITDA[7] and net income clearly demonstrate the relative fragility of this scale: although revenue may remain high, operating profitability and net income fluctuate much more sharply. The peak in profitability recorded in 2022 does not represent a permanent trend, but rather an exceptional moment within a favorable pricing cycle. In contrast, years with losses or reduced earnings show that the company's overall size does not protect it from downturns, accounting adjustments, cost pressures, price declines, or portfolio decisions.

In this regard, Glencore should not be viewed solely as a "solid" company based on the volume of revenue it manages, but rather as an extractive and commercial corporation whose profitability depends on external conditions that can change rapidly, as has been the case since 2021 with thermal coal prices, which led several mining companies around the world to reassess the profitability of their operations. Furthermore, the evolution of assets and

7 EBITDA stands for earnings before interest, taxes, depreciation, and amortization. It is a financial metric used to estimate a company's operating profitability, as it shows the profit generated by its core activities before accounting for financing effects, tax liabilities, and accounting expenses associated with the wear and tear or amortization of assets. However, it is not equivalent to net income or cash flow, so it should be interpreted as a partial measure of economic performance

equity supports this argument (see Figure 3). Total assets reflect the company's significant scale: mines, logistics infrastructure, inventories, processing facilities, commercial assets, and investments spread across the globe. However, the trajectory of equity reveals a less expansive base than that of assets, raising questions about how the company sustains its economic power: not only through direct accumulation of equity, but also through its ability to operate global networks of extraction, financing, debt, intermediation, and marketing. Thus, Figure 2 supports the argument that Glencore combines global economic power, dependence on volatile markets, and a valuation structure that transforms natural commons, territories, and future emissions into present, positive corporate financial results. In other words, its profits are based on the extraction of natural commons that will be consumed, thereby generating emissions.

Figure 3. Trends in income, assets, and equity, 2011 - 2025



Source: Prepared by the authors based on financial information from EMIS (2026). Glencore plc series, 2011-2025.

The case of Glencore provides a concrete example of several of the mechanisms through which transnational capital organizes itself, establishes a territorial presence, and legitimizes itself in contemporary capitalism. From the perspective of monopoly capital, the company should not be understood merely as a mining or commodity trading firm, but rather as a

globally integrated corporate infrastructure, that is, one that exercises direct control over various stages of its value chain: extraction, processing, logistics, intermediation, commercial arbitrage, and the financial valuation of strategic natural commons. In this sense, its operation resembles what Foster et al. (2011) and Suwandi & Foster (2016) describe as the internationalization of monopoly capital: a form of accumulation in which large corporations coordinate dispersed production and commercial chains, and/or concentrate strategic decision-making, the appropriation of surplus, and control over global value flows.

From the perspective of dependency theory, Glencore's operations in peripheral countries or those of the Global South can be interpreted as territorialized forms of subordinate integration into the world economy, where natural resources, the labor force, and socio-environmental conflicts are linked to international circuits of value transfer and appropriation (Marini, 1973; Dos Santos, 1970; Bambirra, 1974). Furthermore, drawing on Harvey (2004), Glencore embodies a contemporary geography of accumulation by dispossession, in that it transforms territories, mineral deposits, water, energy, and nature —viewed as use-values— into a logistics infrastructure and market information system, converting them into assets geared toward global corporate profitability; that is, nature is viewed as exchange-values. Within this theoretical framework, national subsidiaries are neither isolated business units nor mere administrative extensions of a foreign parent company, but rather local manifestations of transnational capital: legal, operational, and political forms through which a global logic of valorization adapts to specific national conditions regarding regulation, labor, taxation, environmental conflict, and the production of social legitimacy.

3.2. About Carbones del Cerrejón: The Colombian Subsidiary of the Extractivist Transnational Glencore

Carbones del Cerrejón Ltd. presents itself institutionally as an integrated coal mining company comprising a mine, a railroad, and a port, located in the department of La Guajira in northern Colombia, adjacent to the municipalities of Albania, Barrancas, Hatonuevo, Maicao, Manaure, and Uribia. In this corporate narrative, the company is portrayed as a productive infrastructure that connects La Guajira to the world, creates jobs, provides

energy, and conducts its operations in accordance with standards of social and environmental responsibility and respect for human rights (Carbones del Cerrejón, 2025a). However, a critical analysis of its history calls into question this discursive self-representation (Quinche-Martín, 2014; 2017; Malaver, 2021) as a linear narrative of efficiency and development (Gudynas, 2015).

Carbones del Cerrejón has been operating in La Guajira since the late 1970s: first as Carbones de Colombia S. A., then through a partnership with Intercor, a subsidiary of Exxon Mobil, and later as a private transnational corporation linked to foreign capital; Throughout this process, the mine's expansion has been linked to violent displacement, as in the case of Tabaco, and to the violent reconfiguration of territories inhabited by Wayúu and Afro-peasant communities (Alaniz Rodríguez & Hernández Lara, 2021; Hernández, 2018). Furthermore, the operation is not limited to the open-pit mine but encompasses extraction, rail transport, port infrastructure, water management, soil removal, and landscape transformation, creating an extractive enclave that disrupts ecological and human systems in a fragile territory (Hernández Ureche et al., 2022).

This story should therefore be read as Glencore's territorialization of Colombia: a form of accumulation that transforms coal, water, land, and labor into global export flows, while shifting the socio-environmental costs of open-pit mining onto the people of La Guajira. From this perspective, for example, the conflicts surrounding the Ranchería River and Bruno Stream are not isolated externalities, but rather expressions of a structural dispute between extractive expansion and the material, cultural, and spiritual conditions for the reproduction of life in the territory (Alaniz Rodríguez & Hernández Lara, 2021; Ulloa, 2020). Air pollution reinforces this critical interpretation: Rojano et al. (2025), Medina et al. (2024), and Jakobsen's (2024) work sustain on how particulate matter in open-pit mining show PM10 concentrations exceeding the World Health Organization's (WHO) recent annual guidelines at monitoring stations in the mining impact area, even though they remain below Colombian standards, highlighting the gap between national regulatory compliance and effective protection of environmental health (Rojano et al., 2025).

Recent production data highlight the sheer scale of the coal project and help illustrate why Carbones del Cerrejón has been a strategic asset for Glencore worldwide. Table 4 shows Carbones del Cerrejón's annual coal production.

Table 4. Carbones del Cerrejón extraction

Year	Carbon Extraction
2019	25,8 million tons
2020	23,4 million tons
2021	19,7 million tons
2022	19,7 million tons
2023	22,0 million tons
2024	19,2 million tons

Source: Carbones del Cerrejón (2025).

According to Table 4, between 2019 and 2024, Carbones del Cerrejón mined 129.8 million metric tons of coal. Although production declined compared to the 2019 level, when it reached 25.8 million metric tons, the operation maintained significant volumes throughout the period. Even in years with lower production, the company maintained an annual production level close to or exceeding 19 million metric tons. This suggests that the observed decline does not represent a departure from the coal mining model, but rather a fluctuation within a large-scale operation, dependent on conditions in the international coal market and corporate decisions regarding production. In this regard, Carbones del Cerrejón has continued to occupy a strategic position for Glencore, both due to the cumulative volume of coal mined and its role in the global flow of energy commodities.

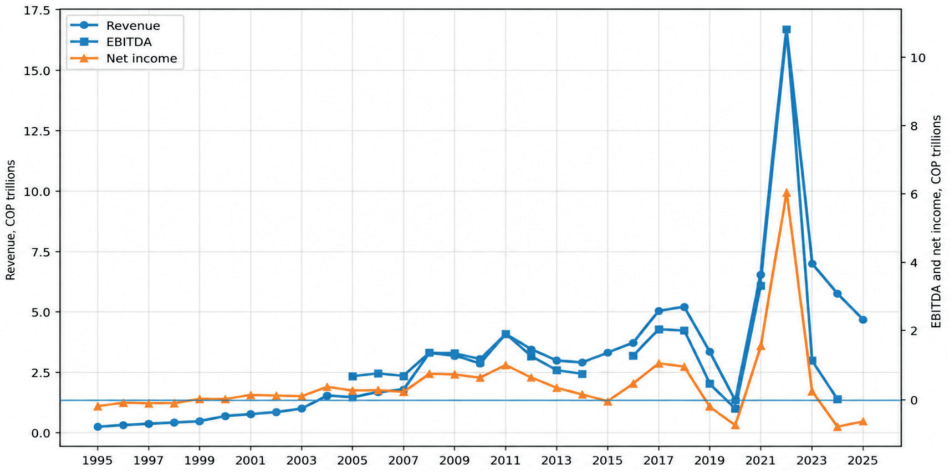
The decline in production in 2024 is not due to a climate transition or a recognition of the territory's ecological limits, but rather to a business adjustment decision explained by the company itself as a consequence of the "unsustainable prices" of thermal coal transported by sea. In fact, Carbones del Cerrejón

announced that it would reduce its annual production by between 5 and 10 million metric tons, estimating production of between 11 and 16 million metric tons, subject to market conditions (Carbones del Cerrejón, 2025, March 25). This figure warrants critical analysis: every million metric tons produced is not merely an exportable commercial unit, but an additional wound inflicted on a semi-arid territory where open-pit mining strips away soil, disrupts water flows, generates particulate matter, transports coal by rail to the port, and perpetuates a regional economy dependent on an activity with high socio-environmental costs. The recent decline in production, therefore, does not erase the historical accumulation of impacts; rather, it confirms that La Guajira's economic life has been subordinated for decades to the volatility of a global coal market that decides from afar how much is extracted, how much is transported, and how much is left behind as an environmental liability in a specific territorial enclave.

However, in financial terms, Figure 4 shows that Carbones del Cerrejón's financial performance is strongly linked to the coal cycle and international conditions in the commodities markets. Between 1995 and the mid-2000s, revenue, EBITDA, and net income showed steady growth, consistent with the consolidation of the mining, rail, and port operations. Subsequently, the data series recorded significant increases during the coal boom years, but also sharp declines during periods of contraction, particularly in 2020. The peak is observed in 2022, when Carbones del Cerrejón reached approximately 16.7 trillion COP in revenue, 10.8 trillion COP in EBITDA, and 6.0 trillion COP in net income. However, this peak does not represent a sustained structural trend, but rather an extraordinary circumstance that quickly reverses in the following years, with a sharp decline in revenue and negative results in 2024 and 2025. This trend is directly related to the performance observed at Glencore on an international level. In both cases, 2022 stands out as an exceptional year for profitability, followed by a significant decline in margins and net income. However, at Carbones del Cerrejón, volatility is more intense because its operations are geographically concentrated and depend much more directly on thermal coal. While Glencore can partially cushion negative cycles through its global diversification into metals, minerals, energy, trading, and logistics, Carbones del Cerrejón remains more exposed to changes in the coal market. Therefore, the figure suggests that Carbones del Cerrejón's profitability does not reflect permanent economic stability, but rather the ability to capture

windfall profits during favorable market conditions, while passing on to the local community the accumulated costs of a highly volatile extractive industry.

Figure 4. Trends in revenue, EBITDA and net income, 1995 - 2025



Source: Prepared by the authors based on financial information from EMIS (2026). Carbones del Cerrejón Limited Series, 1995-2025.

This discrepancy shows that an operation can increase or maintain significant assets without this necessarily translating into stable equity growth. A comparison with Glencore reinforces this interpretation, revealing a significant disparity between its ability to generate revenue, the scale of its assets, and the more limited or constrained growth of its equity. At Carbones del Cerrejón, this tension manifests itself in a geographically concentrated manner: revenue may grow extraordinarily in certain years, but that expansion does not necessarily imply a structural improvement in the balance sheet or a proportional geographical distribution of profits. Thus, this analysis supports the argument that Carbones del Cerrejón's economic power should not be measured solely by its annual revenue, but rather by its ability to sustain a long-term extractive infrastructure in La Guajira. That infrastructure has allowed the company to capture value during coal market booms, but it has also left the region exposed to a dependent economy that is environmentally costly and financially vulnerable to corporate decisions and international prices.

That said, the resistance of the Wayúu people and Afro-descendant communities has been fundamental in challenging the corporate narrative that portrays Carbones del Cerrejón as synonymous with development, regional modernization, and corporate responsibility. This resistance has shown that the conflict is not merely about the distribution of royalties, jobs, or compensation, but rather involves water, territory, memory, health, spirituality, and the continuity of historically rooted ways of life. From a perspective of relational justice, Ulloa (2020) argues that, for the Wayúu communities and especially for Fuerza de Mujeres Wayúu[8], water cannot be understood as an economic resource separate from the territory, but rather as a relational entity linked to sacred sites, everyday practices, territorial rights, and relationships between humans and non-humans. Therefore, the impacts on the Ranchería River, the Bruno Stream and other bodies of water must be interpreted not only as technical interventions on watercourses or water sources, but as forms of territorial and cultural dispossession that fragment the Wayúu's relationships with their water territories (Ulloa, 2020). In turn, Afro-Guajira communities have reported that mining expansion has led to displacement, the breakdown of the social fabric, the loss of territories of memory, and the disruption of traditional economies as agriculture, livestock raising, and fishing (Hernández, 2018; Alaniz Rodríguez & Hernández Lara, 2021).

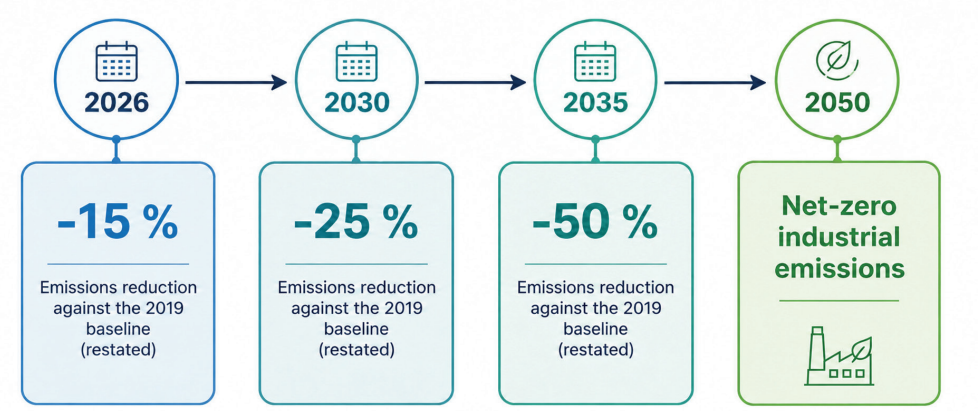
Community actions —including protests, territorial reconnaissance tours, civic strikes, legal challenges, alliances with social organizations, national and international complaints, and their own strategies for defending water— have made it possible to construct a counter-narrative to corporate sustainability: Carbones del Cerrejón is not portrayed there as a mere agent of progress, but rather as an extractive operation whose continued existence has exacerbated environmental, racial, and territorial inequalities. Consequently, the resistance of the Wayúu and Afro-descendant communities must be understood as a political production of knowledge and not as a marginal local reaction: it is these communities that have shown that the debate over Carbones del Cerrejón is, at its core, a struggle for water justice, comprehensive reparations, territorial autonomy, and a post-coal transition in La Guajira (Ulloa, 2020; Tibocha Avellaneda, 2019; Alaniz Rodríguez & Hernández Lara, 2021; Portela, 2025).

8 The human rights organization Sütsuin Jieyuu Wayúu, also known as the Wayúu Women's Force, was founded in 2006 with the aim of raising awareness of and denouncing violations of the Wayúu people's rights associated with the implementation of large-scale mining projects, forced displacement, the vulnerable conditions of victims of the armed conflict, the presence of armed groups, and the militarization of the La Guajira region.

3.3. Climate Policy of Glencore, a Universal Formula to Simulate

Glencore's climate policy is built around a very clear narrative: "powering today" and "moving forward tomorrow." With this narrative, the multinational seeks to position itself simultaneously as a provider of current energy security and as a necessary player in the low-carbon transition. Figure 5 presents the goals of Glencore's climate policy.

Figure 5. Emissions reduction targets under Glencore's climate policy.



Source: Prepared by the authors based on Glencore (2024b).

That baseline already introduces an initial tension: it is not a fixed and indisputable reference point, but rather a flexible line that depends on methodologies, organizational scopes, acquisitions, divestitures, and changes in "favorable public policy conditions". The architecture of this climate policy rests on four pillars: 1) management of the operational carbon footprint; 2) "responsible" reduction of Scope 3 industrial emissions; 3) expansion of the portfolio of transition-enabling commodities; and 4) development of new business models. On the surface, this appears to be a comprehensive policy; however, its formulation is riddled with a series of conditions regarding favorable public policy in the countries where the company operates, methodological caveats, and future scenarios that render many of its commitments as abstract environmental promises up in the air: commitments that sound robust at the cor-

porate level, but which remain subject to prices, technologies, government decisions, permits, carbon markets, and portfolio considerations (Glencore, 2024b).

The treatment of emission scopes is the most problematic aspect of the policy. Glencore states that its targets cover Scope 1, 2, and 3 industrial emissions, but the operational core of its strategy focuses on what it can manage within its assets: fuel efficiency, equipment electrification, renewable energy through power purchase agreements, technological change, and reduced consumption in industrial processes (Glencore, 2024b). This primarily affects direct Scope 1 emissions and Scope 2 emissions associated with purchased energy. In contrast, Scope 3, which accounts for more than 90% of its reported industrial footprint and is dominated by the end-use of thermal coal by its customers and end-users, appears to be shifting toward a responsible "phase-down" approach, portfolio phase-out, the absence of new greenfield thermal coal projects, and a gradual reduction in production, but not as a clear break from the fossil fuel extraction model. Furthermore, the multinational excludes from its targets Scope 3 emissions associated with third-party volumes traded by its marketing business, arguing that its intermediary role does not generate additional emissions from the transformation or use of the product. In practice, this reduces climate accountability for a structural part of its business: moving, optimizing, and marketing fossil and mineral commodities in global markets. Thus, Scope 3 emissions are not completely excluded from the reported inventory, but they are partially excluded from the political realm of direct responsibility: the coal that Glencore mines and sells appears as a problem when accounted for, but as the responsibility of others when it is burned. In short, the exclusion or differential treatment of Scope 3 in operational targets is not a mere methodological detail, but a political decision by financial capital to dilute its climate responsibility.

The second rhetorical strategy of the policy is to position Glencore as part of the solution to climate change. The global company argues that the energy transition cannot be abrupt, that it must balance decarbonization, energy security, and affordability, and that fossil fuels, especially thermal coal in some countries, still serve functions related to the stability of the electrical grid, access to energy, and socioeconomic development, aspects that are not evident in the municipalities where extraction takes place. At the same time, it positions its portfolio of copper, cobalt, nickel, zinc, and other metals as indispensable for the expansion of low-carbon technologies, power grids, renewable infrastructure, and electric

mobility (Glencore, 2024b). This narrative is strategically effective because it transforms the climate problem of an extractive company into an opportunity for corporate repositioning: Glencore does not abandon the extractive logic, but rather reorganizes it around transition minerals. In this process, carbon markets and offsets emerge as complementary mechanisms of legitimization: rather than fully internalizing the socio-environmental costs of extraction and emissions, they can turn carbon into a tradable economic asset, open up new avenues for profitability, and cleanse corporate climate goals of reputational taint through narratives of compensation, neutrality, and green marketing.

Within this framework, recycling and circularity function as legitimizing promises: the transnational corporation highlights that recycling copper can generate nearly 80% fewer emissions than primary copper and that its processing capabilities allow it to utilize waste, scrap, batteries, and electronics. The problem is that this approach does not, in and of itself, alter the material pressure of primary mining or the expansion of the extractive frontier; it may reduce relative intensity, but not necessarily absolute volume, territorial extraction, or socio-environmental conflict. Critical literature on the company's own climate plan specifically identifies these strategies as forms of greenwashing based on selective disclosure, vague long-term goals, qualified statements, and future solutions as recycling, carbon offsets, and green markets, all of which allow the company to project a sustainable image while maintaining the centrality of its extractive business (Leonhardt & Guertler, 2025; Antonini et al., 2025; Llavero-Pasquina et al., 2025; Medina et al., 2024).

Ultimately, climate policy makes the transition a matter of corporate governance, risk management, and capital allocation. Climate emerges as a strategic issue that must be overseen by the board of directors and incorporated into decisions regarding investments, acquisitions, divestments, permits, asset planning, demand scenarios, and physical or transition risks. This business perspective is revealing: the climate crisis is not primarily addressed as ecological debt, territorial responsibility, or reparations to affected communities, but rather as a set of risks and opportunities to safeguard business continuity. The same is true of new "green" businesses: Glencore presents carbon markets, credits, biofuels, energy trading, and carbon solutions as tools for the transition, but these mechanisms can also function as ways to deterritorialize harm. By separating the location where extraction, pollution, or socio-environmen-

tal impacts occur from the location where offsets are purchased or reductions are accounted for, the company can turn carbon into an exchangeable financial unit and shift the discussion from the material transformation of its operations toward the accounting and reputational management of its emissions.

In Colombia, the international company includes a just transition in La Guajira through dialogue, community capacity-building, infrastructure, water, education, and economic diversification; however, this approach stands in tension with the Carbones del Cerrejón case, where coal mining has transformed the Ranchería River, the streams, and the water territories of the Wayúu people. For this reason, Glencore's climate policy must be read as an environmental promise hanging in the air: it speaks of a just transition, carbon neutrality, and new green businesses, but it fails to demonstrate with sufficient force how these promises will repair, reverse, or transform the concrete impacts of Carbones del Cerrejón in La Guajira. Without water justice, territorial reparations, and an effective reduction in dependence on coal, the climate policy functions more as a framework for legitimization than as a genuine break with the extractive model that caused the damage.

Overall, the contrast between Glencore's global climate policy and the local actions reported for Carbones del Cerrejón suggests that the Colombian operation serves as a territorial translation of the corporate discourse on transition. This means that Glencore's global commitments are implemented in La Guajira through indicators, environmental programs, and management mechanisms that allow the operation to be presented as part of a corporate climate strategy, even though they do not necessarily demonstrate a material transformation of the extractive model. At the global level, Glencore structures its climate pledge around four pillars, with targets calculated against a reformulated 2019 baseline (Glencore, 2024b). At the local level, Carbones del Cerrejón's sustainability reports highlight actions as monitoring total energy consumption, reducing emissions, attributed in part to the decline in coal production, adopting standards from the International Council on Mining and Metals (ICMM), and implementing management systems for health, safety, environment, and communities (HSEC), water management, progressive rehabilitation, and mine closure. However, from a critical perspective, these actions appear to be aimed more at fitting Carbones del Cerrejón into Glencore's global sustainability narrative than at resolving the material contradictions of an open-pit coal mine in La Guajira.

Antonini et al. (2025) warn that net-zero strategies in the mining sector typically rely on operational scopes, renewable energy sources, energy efficiency, carbon offsets, and future technologies whose viability and adequacy remain open to question; In Gentile and Gupta (2025), we find that the literature on fossil fuel companies shows that acknowledging climate change can become a delaying tactic through greenwashing, technoptimism, "fossil inevitability", and the shifting of responsibility onto consumers, governments, or markets. In the specific case of Carbones del Cerrejón, Medina et al. (2024) identify discrepancies between corporate disclosures and the environmental impacts described by stakeholders, as well as gaps in information, inconsistencies, and the shifting of responsibility, which allow their communications to be interpreted as a case of greenwashing. This disconnect becomes even more problematic when actions such as the rehabilitation or management of watercourses through hydraulic infrastructure, water and air quality monitoring, rehabilitation programs for affected areas, compensation for biodiversity loss, or mine closure plans are presented as environmental management achievements, even though several of these measures are part of obligations derived from the environmental license, while conflicts surrounding the territory, the Ranchería River, the Bruno Stream, and the Wayúu communities reveal that the damage is not merely a technical management variable, but rather a socio-ecological and cultural rupture that cannot be offset by efficiency indicators, compliance reports, planted trees, or voluntary standards.

In conclusion, we can point out that Glencore's climate policy operates as a global architecture of legitimization, and Carbones del Cerrejón as its local showcase: that is, a set of environmental promises hanging in the air that speak of transition, water management, mine closure, and sustainability, but which have yet to demonstrate an effective break with the coal-extraction model or territorial reparations proportional to the damage caused in La Guajira.

4.

Comprehensive Framework of Climate Action

Glencore's climate policy must be understood in the context of its global corporate structure and the territorial nature of its operations. The previous sections showed that the company operates as a parent company dedicated to the global extraction and trading of commodities, and that Carbones del Cerrejón is one of its territorial entities in Colombia. This tension has been documented by studies that show, on the one hand, how mining and fossil fuel companies use language related to sustainability, transition, net-zero, and climate responsibility to preserve corporate legitimacy and manage the reputational impacts of their operations (Brito, Dias & Zaro, 2022; Gentile & Gupta, 2025; Leonhardt & Guertler, 2025; Llavero-Pasquina et al., 2025). On the other hand, the literature on Cerrejón and La Guajira shows that these discourses coexist with territorial conflicts related to water, health, displacement, prior consultation, environmental degradation, and the reproduction of a global coal supply chain that connects peripheral territories with international markets (Carmona & Dąbkowska, 2024; Jaramillo & Carmona, 2022; Jakobsen, 2024; Medina Salazar, Cante Reyes & Cáceres Mejía, 2024; Suárez Ricaurte, 2022; Gutiérrez-Martínez et al., 2025; Cajar, 2019). In the specific case of Glencore, an analysis of its climate plan reveals a gap between its corporate commitments and the continued production of coal, reinforcing the need to interpret its climate policy through the lens of the territorial materiality of its operations, and not solely through its global decarbonization goals (ACCR, 2024). Within this framework, Glencore's global climate policy is shaped by a material history of conflict that receives limited attention in its reports, targets, and transition pledges. This is where the central problem of this section lies. Corporate climate action produces a discourse of responsibility, efficiency, and sustainability that displaces analysis of the territorial conditions that made extractive accumulation possible. In the case of Carbones del Cerrejón, this tension is expressed in the coexistence of the sustainability narrative and socio-environmental conflicts and impacts.

Therefore, this section offers a critical examination of corporate climate action, which is evaluated on two levels. First, as part of a pattern of corporate climate action in which extractive companies seek to present themselves as part of the solution through carbon neutrality goals and the creation of green businesses. Second, as a policy that must be contrasted with the Carbones del Cerrejón case, where local environmental management actions appear aimed

at aligning with Glencore's global discourse, while leaving open the question of the historical forms of harm, land appropriation, and conflict caused by coal mining in La Guajira.

4.1. Comprehensive Framework of Climate Action

Glencore's climate policy requires an analytical framework that allows for an examination of its global commitments and their territorial impacts. To this end, the reviewed literature is organized into three main categories. The first is climate justice, which addresses corporate climate responsibility, human and territorial rights, and socio-ecological reparations. The second category is a fair energy transition, which encompasses climate coherence, coal phase-out, and territorial participation in the transition. The third category is mine closure and post-closure, which brings together debates on environmental liabilities, ecological restoration, and socioeconomic restructuring. Table 5 summarizes these categories and subcategories to present the conceptual framework that guides a critical reading of Glencore's climate plan and its contrast with the territorial materiality of Carbones del Cerrejón in La Guajira.

Table 5. Categories and subcategories for the analysis of Glencore's climate policy

Categories	Subcategories
Climate justice	Corporate climate responsibility
	Human and territorial rights
	Socioecological remediation
Fair energy transition	Climate coherence
	Climate coherence
	Regional participation in the transition
Closure and post-closure	Environmental liabilities
	Ecological restoration
	Socioeconomic restructuring

Source: Prepared by authors..

Based on this summary, the following sections discuss the main contributions of literature according to the three analytical categories defined.

4.1.1. Climate Justice

Climate justice provides a framework for assessing whether Glencore's climate policy acknowledges the relationship between corporate responsibility, differentiated impacts, and redress for cumulative harm in the territories where its extractive operations take place. From this perspective, it is not enough to simply review the existence of targets, standards, reports, or transition pledges; it is necessary to analyze whether these instruments transform the company's dependence on coal, sufficiently incorporate Scope 3 emissions, and address the territorial materiality of its operations. The literature warns that extractive companies often resort to language surrounding carbon neutrality, offsetting, sustainability, and transition that can discursively reframe their responsibility through long-term goals, partial scopes, strategic omissions, the presentation of obligations as voluntary initiatives, and climate delay strategies. Therefore, this approach allows us to assess whether Glencore's climate policy addresses the structural causes of its impacts or whether it manages its responsibility through technical language of sustainability and transition (Antonini et al., 2025; Brito et al., 2022; Gentile & Gupta, 2025; Leonhardt & Guertler, 2025; Llavero-Pasquina et al., 2025; Medina Salazar et al., 2024; ACCR, 2024).

Human and territorial rights allow us to situate corporate climate action in relation to water, health, prior, free, and informed consultation, displacement, economic dependence, community participation, and the forms of territorial appropriation associated with the energy transition. The reviewed literature shows that transitions can reproduce logics of green extractivism when they convert land, water, and nature into assets for climate or energy projects. In the case of Carbones del Cerrejón, these insights allow us to contrast Glencore's global narrative, which in fact creates and exacerbates territorial conflicts associated with the Ranchería River, the Bruno Stream, air quality, community health, resettlements, and the historical demands of Wayúu and Afro-descendant communities (Barbosa & Nóbrega, 2025; Blanco-Wells, 2019; Carmona & Dąbkowska, 2024; Furtado & Paim, 2024; Gutiérrez-Martínez et al., 2025; Jakobsen, 2024; Jakobsen et al., 2025; Prosser Bravo et al., 2022; Cajar, 2019).

Socio-ecological restoration allows for a distinction between compensation, rehabilitation, and restoration. This distinction is relevant because the literature shows that corporate environmental compensation instruments can convert complex damages into manageable units, restored hectares, conserved areas, ecological equivalents, habitat banks, no-net-loss indicators, or closure programs, without necessarily addressing the socio-ecological relationships that were affected. In the Colombian context, López Arbeláez & Quintero Sagre (2015) show that biodiversity offsets have been incorporated as mechanisms to manage residual impacts of infrastructure and mining projects, including cases as Cerrejón, through restoration, rehabilitation, ecological recovery, payments for environmental services, and conservation portfolios. However, these mechanisms tend to operate based on metrics of ecological equivalence that do not fully capture the social, cultural, and hydrosocial damages caused by mining.

This critique is reinforced by Ta & Campbell (2023), who show that biodiversity offsets in the mining sector can function as a "license to destroy": companies present conservation areas as an environmental response, while damage to habitats, livelihoods, and local communities persists or is displaced to other territories. From the perspective of mine closure, Hernández et al. (2023) warn that Colombia lacks unified and robust regulations for closure and post-closure, which allows environmental liabilities to ultimately be borne by the state and local communities. Schliesser (2024) expands on this critique by arguing that the closure of coal mines must be viewed through the lens of restorative justice, corporate due diligence, and human rights, which entails identifying the harm, assigning responsibility, providing material and symbolic reparations, and ensuring non-repetition.

For La Guajira, Portela (2025) proposes moving beyond the limited logic of financial compensation and corporate conservationism, and understanding mine closure as a process of comprehensive restoration of the territory, built in collaboration with communities and aimed at mending the damaged relationships between water, ecosystems, health, culture, autonomy, and community life. This discussion is illustrated by the Cerrejón case, where Suárez Ricaurte (2022) shows that legal protections for foreign investment have favored multinationals as Glencore, while communities face slow and inadequate responses to the diversion of water sources, displacement, and pollu-

tion. Jaramillo & Carmona (2022) add that Cerrejón not only intervenes in the physical territory but also in conceivable futures by presenting projects as the diversion of the Bruno Stream through technical language centered on control, stewardship, and risk management. Finally, Weber et al. (2023) demonstrate that the economic dependence of coal-mining regions limits territorial resilience and means that mine closure cannot be reduced to environmental rehabilitation alone but must include economic restructuring, strengthening of local capacities, and redress for accumulated harm. Thus, in the case of Glencore-Cerrejón, this subcategory allows us to assess whether climate policy incorporates a response to the accumulated territorial debt in La Guajira, or whether it limits corporate action to climate commitments, conservation, environmental rehabilitation, and sustainability programs that do not address the structural causes of the damage.

4.1.2. Fair Energetic Transition

A fair energy transition allows us to assess whether Glencore's climate policy proposes a verifiable transformation of the coal-based model and whether it equitably distributes the costs, benefits, and decisions associated with the energy transition. Climate coherence allows us to examine the relationship between emissions reduction targets, the treatment of Scope 3 emissions, and the continuity of the business model. In mining and fossil fuel companies, operational Scope 1 and 2 reductions can be achieved through energy efficiency, electrification, or renewable energy, while emissions associated with the end use of sold products remain a critical point of accountability. The literature shows that net-zero roadmaps can rely on long-term targets, future technologies, offsets, strategic omissions, and nuanced corporate language. These findings raise the question of whether Glencore's climate policy reduces its dependence on coal or whether it improves the accounting and narrative management of its emissions without altering the material core of its coal portfolio (Antonini et al., 2025; Brito et al., 2022; Gentile & Gupta, 2025; Leonhardt & Guertler, 2025; Medina Salazar et al., 2024; ACCR, 2024).

Reducing coal use is a key test of a just energy transition for companies with fossil fuel portfolios. The literature warns that companies may frame their exit

from coal using language related to an orderly transition, energy security, future demand, reduction technologies, or market conditions. These frameworks acknowledge the social and economic complexity of the transition, but they can also delay exit decisions and maintain the continuity of the fossil fuel business. In the case of Glencore and Carbones del Cerrejón, this subcategory allows for an assessment of whether there is a clear, verifiable, and territorially just pathway for reducing coal production and sales, coordinated with employment, reparations, economic restructuring, and the protection of affected communities (Antonini et al., 2025; Cha, 2020; Gentile & Gupta, 2025; Llavero-Pasquina et al., 2025; Peretto et al., 2025; Wang & Lo, 2021; ACCR, 2024).

Territorial participation in the transition allows for a distinction between corporate engagement processes and effective community decision-making capacity. The literature shows that coal transitions are marked by uncertainties, emotional attachments, economic dependencies, disputes over regional identity, and inequalities between producing and consuming territories. It also warns that false solutions and green extractivism can impose technical or corporate priorities over the knowledge of Indigenous, Afro-descendant, and community groups. From this perspective, a just energy transition in La Guajira requires that communities have a say in defining damages, closure timelines, reparations priorities, ecological restoration, productive alternatives, and guarantees of non-repetition. This subcategory raises the question of whether Glencore and Carbones de Cerrejón recognize communities as decision-makers regarding the post-coal future or whether they position them as stakeholders within a framework of corporate legitimization (Carmona & Dąbkowska, 2024; Furtado & Paim, 2024; Jakobsen, 2024; Llavero-Pasquina et al., 2025; Peretto et al., 2025; Prosser Bravo et al., 2022; Weber et al., 2023).

4.1.3. Mine Closure and Post-Closure

Mine closure and post-closure allow for an assessment of Glencore's climate policy in the scope of the social, ecological, and economic conditions that remain in the region after decades of coal mining. This category shifts the discussion from technical compliance with closure requirements to accumulated liabilities, ecosystem restoration, and the development of alternatives for La Guajira's post-coal future. Environmental liabilities help identify cumulative damage that persists beyond the production cycle and that may be sidelined in favor of

emissions reduction targets, efficiency indicators, or transition narratives. The reviewed literature shows that corporate reports may selectively report certain impacts, present environmental actions as evidence of responsibility, and omit material dimensions of the damage. In the case of Carbones de Cerrejón, these contributions allow for an analysis of the liabilities associated with water, soil, air, biodiversity, health, livelihoods, institutional trust, the community fabric, and the memory of harm. From this perspective, mine closure must address the territorial conditions accumulated by the operation and not be limited to reporting progress on rehabilitation or emissions reduction (Brito et al., 2022; Cajar, 2019; Gutiérrez-Martínez et al., 2025; Medina Salazar et al., 2024; Suárez Ricaurte, 2022; Weber et al., 2023).

Ecological restoration allows us to examine whether rehabilitation, compensation, or conservation efforts rebuild socio-ecological conditions affected by mining. The literature notes that planting trees, revegetating areas, or reporting restored hectares can yield useful environmental indicators, but these indicators must be compared with the actual recovery of water sources, biodiversity, soils, community health, as well as livelihoods and ways of life. In the case of Carbones del Cerrejón, this subcategory allows us to assess whether environmental actions contribute to restoring relationships between communities, ecosystems, and the land, or whether they primarily serve as evidence of environmental management within the company's narrative of responsible closure (Llavero-Pasquina et al., 2025; López Arbeláez & Quintero Sagre, 2015; Medina Salazar et al., 2024; Peretto et al., 2025; Ta & Campbell, 2023; Weber et al., 2023).

Socioeconomic restructuring allows us to analyze whether the phase-out of coal opens territorial alternatives or reproduces dependencies under new forms of investment. The literature on coal-mining regions shows that post-closure involves employment, tax revenue, public services, institutional capacities, regional identity, job uncertainty, and productive diversification. It also warns that these transitions can perpetuate extractivism when coal is replaced by new "green" businesses controlled by the same actors and without an effective redistribution of power. For La Guajira, this subcategory raises questions about who decides the post-coal future, who finances the transition, who repairs the damage, and who benefits from the new economic activities. (Barbosa & Nóbrega, 2025; Blanco-Wells, 2019; Carmona & Dąbkowska, 2024; Cha, 2020; Furtado & Paim, 2024; Prosser Bravo et al., 2022; Weber et al., 2023).

4.2. What Can We Say About Glencore's Climate Action Plan?

Glencore's climate policy should be interpreted less in terms of what it promises and more in terms of what it chooses to exclude from the scope of its responsibility. As shown in the previous section, the literature on corporate climate action warns that transition plans can function as mechanisms that shape the language of responsibility, define the scope of what is measurable, and project an image of transformation without necessarily altering the material conditions of the harm (Brito et al., 2022; Leonhardt & Guertler, 2025; Medina Salazar et al., 2024). In Glencore's case the problem is not the absence of a formal climate policy, but rather the way it is structured: it is a policy designed at the corporate headquarters, covering portfolio oversight, emissions management, climate risks, and capital allocation, but not from the perspective of the territories affected by its operations. This distinction is key to avoiding a purely descriptive reading of the plan. The question is not whether Glencore has targets, metrics, or a transition narrative, but whether those targets and metrics can address the socio-ecological conflict unfolding in places like La Guajira. According to Blanco-Wells (2019), the energy transition cannot be understood as a simple shift in energy sources or technologies; it must be understood through the "social life of energy", that is, through the territorial, political, and cultural relationships that make its production possible. From this perspective, Glencore's climate plan appears to be a global policy that speaks of transition but does not consider the territorial history that made its coal-based accumulation possible.

This gap between the corporate level and the regional level becomes more evident when Glencore's climate policy is compared with Carbones del Cerrejón's sustainability reports. Glencore, as the parent company, formulates its policy in terms of operational footprint, Scope 3, transition metals, new businesses, governance, risks, and capital allocation. Carbones del Cerrejón, as the Colombian operation, translates that narrative locally through reports on water, air, biodiversity, mine closure, communities, human rights, prior consultation, social investment, and resilience. However, the relationship between these two levels is not symmetrical: the global climate policy is not restructured based on Cerrejón's territorial liabilities; rather, Cerrejón is incorporated

as local evidence of management within the global sustainability narrative. This point addresses a tension identified by Jaramillo & Carmona (2022): coal mining produces seemingly inevitable futures, in which the territory is caught between the historical promise of development and the threat of crisis when the decline of the industry is announced. In the case of Glencore-Cerrejón, the climate plan does not break with this construction of inevitability; rather, it reframes it using the language of a responsible transition. Therefore, the following analysis evaluates climate policy from three dimensions: climate justice, a just energy transition, and mine closure and post-closure.

4.2.1. Climate Justice

From a climate justice perspective, the first limitation of Glencore's climate plan is that it defines responsibility primarily within the corporate scope of its emissions, rather than across the entire chain of climate and land-related harms associated with its business model. The literature on net-zero in mining shows that many companies make ambitious commitments, but rely on operational reductions, future technologies, offsets, and accounting boundaries that reduce pressure on their most problematic activities (Antonini et al., 2025). This pattern emerges at Glencore when it acknowledges that its Scope 3 emissions account for more than 90% of its carbon footprint and that most of them are related to its coal portfolio, yet it maintains a gradualist approach to the problem: progressive reduction, future technologies, favorable public policies, and shared responsibility with governments, customers, and value chains. In its 2024–2026 Climate Action Plan, Glencore even states that if global adoption of clean and carbon-capture technologies does not progress sufficiently, unabated thermal coal could continue to play a role in electricity generation beyond 2040 (Glencore, 2024a, p. 9). This formulation does not only acknowledge the central role of coal but also leaves room for arguing in favor of its continued use.

This treatment of Scope 3 emissions is particularly problematic because Glencore is not only a producer but also a global commodities trader. In analyzing greenwashing and climate delay tactics, Gentile and Gupta (2025) show that fossil fuel companies have shifted their rhetoric from outright denial of climate change to more subtle narratives: fossil inevitability, energy security, technoptimism, and the shifting of responsibility onto consumers, govern-

ments, or markets. At Glencore, this maneuver is evident when the company acknowledges the emissions associated with the end use of its products but fails to translate that acknowledgment into a clear decision to phase out coal. The coal extracted and sold is included in climate accounting, but its future combustion is partially shifted onto customers and the evolution of demand. In this sense, climate policy does not challenge the core of fossil fuel accumulation but rather manages its decline within margins defined by the company itself.

The exclusion or differential treatment of certain assets reinforces this criticism. In the same 2024–2026 Climate Action Plan, Glencore presents the acquisition of a 77% stake in the mining company Elk Valley Resources as an opportunity to strengthen its position in products considered necessary for the transition, particularly metallurgical coal for steel production. The company maintains that, for the purposes of this plan, it does not include these assets in its baseline or in its current decarbonization targets, and that it will report on their performance separately while it develops a specific strategy for those assets (Glencore, 2024a, p. 4). This point is analytically important because it shows that climate policy can coexist with an expansion or restructuring of the coal portfolio. According to critical literature, this is not merely a methodological decision; it reveals corporations' ability to define what is included and what is excluded from climate calculations. In the words of Leonhardt & Guertler (2025), omissions, tailored scopes, and long-term targets can produce a picture of transition that does not necessarily correspond to an immediate reduction in the most carbon-intensive activities.

Climate justice also requires comparing Glencore's global figures with the environmental damage caused by Cerrejón. In 2025, Glencore reported 18.7 million metric tons of CO_2e in Scope 1 and 2 industrial emissions, and 381.2 million metric tons of CO_2e in Scope 3 industrial emissions (Glencore, 2025a, p. 1). Additionally, its sustainability report lists 366.06 million metric tons of CO_2e associated with the use of products sold under Scope 3, Category 11, and payments to governments totaling US$8,098 million (Glencore, 2025b, p. 54). These figures reflect the company's climate and fiscal scale, but they do not, on their own, explain the geographical distribution of its impacts. In La Guajira, the climate issue cannot be reduced to emissions alone: it involves water, air, health, resettlements, prior consultation, cultural harm, and repa-

rations. Therefore, following Prosser Bravo et al. (2022), criticism from the Global South demands that we ask which territories underpin the corporate North's climate promises and which voices are subordinated by the technical authority of the report.

The gap between global climate responsibility and territorial responsibility is evident in Glencore's own reports. In its 2024 Sustainability Report, the company acknowledges that Cerrejón has operated for more than forty years in territory inhabited by the Wayúu people; it also notes that, pursuant to a 2016 Constitutional Court ruling, Cerrejón was required to develop compensatory projects in consultation with indigenous communities to address potential environmental, social, and cultural impacts accumulated over more than thirty years. Glencore reports that, as of the end of 2024, Cerrejón had reached agreements with 401 of more than 450 indigenous communities, and that a separate consultation process was ongoing with Tigre Pozo community regarding the partial diversion of the Bruno Stream, with a final agreement expected in 2025 (Glencore, 2024b, p. 56). The significance of this information lies not in presenting it as evidence of good management, but in reading it critically: if the parent company itself acknowledges compensatory processes for impacts accumulated over decades, climate policy cannot treat Cerrejón as merely another operation within a trajectory of emissions reduction. It must recognize it as a territory where climate action would only be credible if it is linked to reparations, water justice, and guarantees of non-repetition.

The conflict over the Bruno Stream also highlights the tension between the constitutional protection of territories and the international investment regime. Glencore International A. G. initiated arbitration ICSID ARB/21/30 against Colombia based on the Bilateral Investment Treaty signed between Colombia and Switzerland in 2006, alleging harm resulting from the Constitutional Court's order suspending the partial modification of the stream's course. Although the arbitral tribunal cannot overturn the constitutional ruling, the claim turns a measure intended to protect water resources and community rights into a potential financial obligation for the State. These disputes can increase the cost of environmental decisions and restrict the regulatory space needed to strengthen climate action, territorial protection, and compliance with NDCs.

From this perspective, Glencore's climate plan falls short on a fundamental aspect of climate justice: it does not sufficiently link emissions to the harms that made extraction possible. Tons of CO_2e allow us to measure part of the problem, but they do not capture the way mining transforms territories, bodies, rivers, streams, and community relationships. Barbosa & Nóbrega (2025) and Furtado & Paim (2024) warn that the energy transition can produce new forms of territorial appropriation when it leaves intact the logic of converting land, water, and nature into assets for accumulation. Therefore, Glencore's climate policy focused on emissions, portfolio, and markets that cannot be considered sufficient unless it incorporates Cerrejón's socio-ecological debt as part of its climate responsibility.

4.2.2. Fair Energetic Transition

From the perspective of a just energy transition, the plan's main problem is that Glencore announces a reduction in coal use without outlining a territorially just phase-out of coal. The literature on just transition emphasizes that the reduction of fossil fuels cannot be assessed solely through aggregate targets or corporate trajectories: it must take into account workers, communities, local governments, fiscal dependence, livelihoods, territorial identity, and the distribution of costs (Cha, 2020; Wang & Lo, 2021; Peretto et al., 2025). In Glencore's case, the rhetoric of "powering today" and "moving forward tomorrow" maintains a calculated ambivalence: it allows the company to sustain the supply of fossil fuels in the present while simultaneously repositioning itself as a provider of metals and minerals necessary for the transition. The result is a transition understood as a reorganization of the extractive portfolio, not as a transformation of the power relations that underpin extraction.

This ambivalence is evident at Cerrejón. In its 2024 Sustainability Report, Carbones del Cerrejón states that its mining, rail, and port operations "continue to bring energy to the world" and that it strives to build a future guided by sustainability (Carbones del Cerrejón, 2025a, p. 3). That statement is revealing: the company presents itself as a global energy provider and, at the same time, as an agent of local sustainability. However, the literature on fair transition compels us to ask another question: what does "bringing energy to the world" mean when that energy is produced at the expense of territories facing water stress, socio-environmental conflict, and historical demands for reparations?

Carmona & Dąbkowska (2024) show that coal transitions are fraught with emotions, uncertainties, and unequal relationships between producing and consuming territories. In this sense, La Guajira is not merely an energy supply hub; it is a territory that has borne the costs of energy consumed elsewhere.

Cerrejón Coal's 2024 report also shows how the transition narrative takes a back seat to operational continuity. In the President's letter the company highlights blockades, attacks, new taxes, and investment uncertainty as factors that jeopardize the company's sustainability and regional development; it states that it has had to adapt its operations, mining plans, and capital investments in response to these external conditions (Carbones del Cerrejón, 2024, p. 5). This framing is not neutral. Social conflicts are portrayed as obstacles to operations, while business continuity is associated with regional sustainability. Based on the arguments put forward by Jaramillo & Carmona (2022), this is a way of constructing inevitable futures: the company presents its continued existence as a condition for stability and its decline as a threat. Thus, the transition is caught in a contradiction: there is talk of sustainability and closure, yet the continuity of operations is defended as if there were no territorial alternatives beyond coal.

Local engagement is where this contradiction becomes most apparent. In its 2024 Sustainability Report, Glencore outlines a general policy for engaging with indigenous peoples based on meaningful participation, consultation, good-faith negotiation, and mutually beneficial agreements (Glencore, 2024b, p. 55). At the local level, Cerrejón reports on consultation agreements, social programs, water supply, community strengthening, and community engagement. However, the reviewed literature allows us to distinguish between participation as relationship management and participation as effective territorial power. Furtado & Paim (2024) and Llavero-Pasquina et al. (2025) warn that the transition can reproduce "green extractivism" when indigenous and local knowledge is incorporated as participatory inputs but not as binding criteria for defining the territory's future. In the case of Cerrejón, the question is not how many agreements are signed, but rather who decides the timeline for closure, who defines the liabilities, who controls environmental information, who prioritizes remediation, and who designs the post-coal economy.

The Colombian operation features initiatives that, taken in isolation, may appear to be advances in social management. In 2024, Carbones del Cerrejón reported social investment of nearly 86 billion pesos, more than 2,000 social initiatives, the delivery of 57 million liters of water to 164 communities via the "Tren del Agua" (Water Train), and 401 prior consultation agreements under Ruling T-704 (Carbones del Cerrejón, 2024, p. 5). These figures should be interpreted with caution. On the one hand, they demonstrate the company's material capacity for intervention. On the other hand, they also reveal the depth of territorial dependence: the company appears as a provider of water, employment, projects, infrastructure, and community mediation in a department where mining has helped reshape social life. Weber et al. (2023) show that the resilience of coal-mining regions cannot depend on isolated corporate programs, but rather on public services, institutional capacities, and robust social conditions. Therefore, a just transition cannot be confused with social investment while the mine remains active; it must create conditions so that life in the region does not depend on the company's continued presence or its unilateral withdrawal.

The phase-out of coal also does not appear as a territorially planned pathway. Although Glencore reports a reduction in its exposure to coal, it does not present a specific, verifiable, and context-specific trajectory for Cerrejón in its climate plan that integrates production reduction, mine closure, workforce transition, post-closure financing, water restoration, and economic diversification. This gap is critical. Cha (2020) warns that a just transition can become exclusionary if it is designed based on technocratic visions that ignore identities, conflicts, and inequalities in coal-mining regions. Peretto et al. (2025) propose evaluating territorial transition plans using social, economic, demographic, and environmental indicators. Considering these criteria, Glencore's plan reduces coal as an asset in its portfolio but does not transform the historical relationship between mining, water, labor, and territory in La Guajira.

4.2.3. Mine Closure and Post-Closure

From mine closure through post-closure, the most significant limitation of Glencore's climate plan is that it does not incorporate Cerrejón's environmental and social liabilities as part of its climate responsibility. The climate

plan organizes the transition around emissions, risks, portfolio, technologies, capital, and governance; Carbones del Cerrejón organizes its local narrative around water, air, biodiversity, closure, consultation, human rights, and social investment. But a crucial link is missing between the two plans: converting the liabilities of the Colombian operation into climate and territorial obligations for the parent company. Brito et al. (2022) show that socio-environmental reports can select, soften, or reorganize information on environmental risks and obligations; Medina Salazar et al. (2024) show that, at Cerrejón, this gap manifests as discrepancies between corporate disclosures and impacts reported by stakeholders. Therefore, the closure of Cerrejón cannot be evaluated solely as technical compliance, progressive rehabilitation, or contractual reversion, but rather as evidence of socio-ecological remediation.

Cerrejón's environmental performance figures should be analyzed with this caution in mind. In 2024, Carbones del Cerrejón reported COP 456 billion allocated to environmental initiatives, 5,200 hectares rehabilitated, 3.7 million trees planted, 91% of water usage coming from sources other than natural water bodies, and 100% compliance with environmental regulations at air quality monitoring stations (Carbones del Cerrejón, 2024, p. 5). These data are relevant because they demonstrate large-scale environmental actions; however, they do not address the question of remediation. López Arbeláez & Quintero Sagre (2015) and Ta & Campbell (2023) warn that biodiversity compensations can reduce complex ecological losses to administrative equivalencies: hectares for hectares, trees for trees, indicators for damage. In the case of Cerrejón, the critical question is not how many hectares were rehabilitated, but whether these actions restore the affected socio-ecological relationships: water, soil, biodiversity, health, traditional land uses, and biocultural ties.

The Bruno Stream embodies this tension between technical management and territorial disputes. In its 2023 Sustainability Report, Glencore reported that Cerrejón partially modified 3.6 kilometers of the stream, shifting it 700 meters to the north, with environmental permits, consultation with more than 7,000 people, and external monitoring; it also stated that Cerrejón does not extract water from Bruno Stream and that the new channel has conditions comparable to those of a similar stream in the region, providing habitat for more than 600 species of plants and animals (Glencore, 2023, p. 38). Viewed through the lens of the literature on socio-ecological reparation, this narrative

is insufficient because it reduces the water, cultural, and territorial dispute to a problem of engineering, monitoring, and biophysical comparison. Jaramillo & Carmona (2022) help us understand this mechanism as a form of corporate management of the future: the company attempts to technically stabilize an intervention that communities continue to contest as territorial harm.

The tension is confirmed by the fact that the conflict remains unresolved. In 2024, Glencore acknowledged that the consultation process with the Tigre Pozo community regarding the partial diversion of Bruno Stream was still ongoing, with a final agreement expected in 2025 (Glencore, 2024, p. 56). If the parent company's own report acknowledges that the consultation is ongoing, the diversion cannot be treated as a resolved technical matter or as sufficient evidence of adequate environmental management. From Schliesser's (2024) perspective, mine closure and transition must be approached through the lenses of restorative justice, human rights, and corporate due diligence. This requires a shift from impact management to remediation of harm, and from consultation as mere compliance to participation as a genuine capacity to influence the future of the territory.

The termination of Cerrejón's mining contract does not, in and of itself, amount to a post-coal transition. In 2024, Carbones del Cerrejón stated that its mining contracts expire in February 2034 and that it will hand over assets, infrastructure, and operational areas to the Colombian government in excellent condition; however, it also noted that it will be up to the government to determine what to do with those assets and infrastructure, including the possibility of continuing operations (Carbones del Cerrejón, 2024, p. 43). This clarification is critical. The closure is presented as a contractual reversion, not as a definitive departure from the coal-based model. Arond et al. (2024) warn that coal transitions in Colombia oscillate between policy formulations and territorial realities marked by fiscal, labor, and social dependence. In this case, Cerrejón communicates a responsible closure but leaves open the possibility of continued operations at the government's discretion, which undermines the process's climate coherence.

Considering this risk, the contractual term set for 2034 requires the establishment of financial safeguards to prevent the reversion of mining assets and areas from becoming a transfer of liabilities to the State. Before the transac-

tion is finalized, the authorities should require Carbones del Cerrejón and its parent company to establish sufficient, adjustable, and enforceable guarantees, as insurance policies, deposits, bank guarantees, or separate trust funds, to finance closure works, socio-ecological restoration, long-term environmental monitoring, and the management of contingencies during the post-closure period. These resources must remain separate from the company's operating assets and available regardless of whether the company remains in Colombia, so that responsibility for accumulated damages does not ultimately shift to public institutions or the communities of La Guajira.

Socioeconomic restructuring is likely the weakest component of climate policy and local closure. In 2024, Carbones del Cerrejón reported approximately 13,778 direct employees and contractors, 60% of whom were from La Guajira, and purchases and contracts totaling nearly 300 billion pesos with 182 suppliers from La Guajira (Carbones del Cerrejón, 2024, pp. 5, 48). These figures reveal significant economic linkages, but they also highlight a territorial dependency that cannot be resolved through contractual closure or social investment alone. A post-coal strategy would need to include goals for job replacement, multi-year funding, fiscal restructuring, the strengthening of local economies, the protection of resettled communities, and territorial governance of the closure process. Without these elements Glencore's climate policy may end up managing the decline of coal from its global portfolio, while Carbones del Cerrejón manages locally the dependency that mining has created over decades.

In summary, Glencore's 2024–2026 Climate Action Plan demonstrates tangible progress in publishing interim goals, defining governance mechanisms, providing regular reporting, and acknowledging the just transition in its statements. However, when compared to the main international frameworks for climate integrity, the United Nations High-Level Expert Group's "Integrity Matters", the SBTi's Corporate Net-Zero Standard, and the Oxford Principles, substantial gaps become evident.[9] The 2030 reduction target falls short of the

9 See Annex 1, "Matrix Showing the Alignment of Glencore's 2024–2026 Climate Action Plan with International Climate Integrity Benchmarks", which describes these three frameworks and compares the corporate plan with their guidelines on climate ambition, coverage of Scopes 1, 2, and 3, fossil fuel reduction, use of carbon credits, compensation of residual emissions, transparency, and fair transition. This assessment is based on an independent document review and does not constitute a certification, audit, or official validation by the organizations responsible for these frameworks. in-

ternationally recommended level of ambition; the emissions scope does not fully encompass the company's production and commercial activities; coal reduction remains contingent on demand, public policies, and the development of future technologies; and there is no sufficiently defined pathway to identify and offset residual emissions through durable removals. Therefore, while the plan shows partial alignment in its planning, management, and disclosure mechanisms, it falls short when it comes to the structural transformation of the fossil fuel portfolio, accountability for Scope 3 emissions, and the remediation of territorial damages. Rather than dismantling the model that caused the damage, Glencore's climate policy tends to manage it through transition targets, scenarios, and indicators.

5.

Social Leaders on the International and Local Manipulation of Climate Reports and Actions

The following section contrasts Glencore's global climate narrative with the local realities associated with Carbones del Cerrejón in Colombia, drawing on a complementary dialogue between previous field research conducted by Censat Agua Viva on mine closures and carbon markets, the discussion on climate justice and the energy transition developed in the previous sections, and the findings of a workshop held in the community of Manantial Grande within the Wayúu Indigenous Reserve of Lomamato, in the municipality of Hatonuevo, on April 11 and 12, 2026, with leaders of the Wayúu people and Afro-descendant communities from various communities in La Guajira who have a history of conflict with extractive companies on their territory[10]. This analysis demonstrates how international corporate reports can present a polished and technically responsible image while minimizing, displacing, or rendering invisible the territorial impacts that communities experience as daily devastation; it also shows that these communities, in addition to highlighting the contrast between corporate discourse and the reality on the ground, are constructing a counter-narrative centered on their own climate policy, one that is more coherent than the document Glencore presented to its investors.

5.1. Impact is Not Only GHG Emissions. The Gap Between Corporate Narrative and Territorial Reality of the Communities

En Previous Censat studies on mine closure and comprehensive remediation (Portela, 2025) demonstrated that the Cerrejón Coal Mine Reversion and Closure Plan replicates a logic of compensation that fragments the territory into technical components that can be measured, closed, and reverted to the Colombian State without the company assuming responsibility for remedying the accumulated damage. Closure occurs upon the depletion of economically viable mineral resources and not because of acknowledging a territorial debt. When the contract ends in 2034, areas with active reserves will be reverted to the State along with the infrastructure and machinery used in the production process, while the perpetual impacts on water sources, soils, and community

10 Research workshop held on April 11 and 12, 2026, in Manantial Grande, Wayúu Indigenous Reserve of Lomamato, Hatonuevo, La Guajira. The methodology combined a presentation on Glencore's climate policy, an explanation of climate change as a global phenomenon, and a group discussion on territorial impacts and the participatory development of a climate policy appropriate for the context of the Cerrejón mine's closure.

health remain the responsibility of the public sector, and four decades of extraction are closed out on the books without having been resolved territorially. The issue of water is where this transfer of responsibility is most evident. Carbones del Cerrejón's operations have led to the loss of 68.67 km of watercourses and the disappearance or reduction of more than 17 streams in the Ranchería River basin, on which nearly 450,000 people depend, in addition to 38 interventions affecting surface water sources reported to the ANLA (Censat Agua Viva and Cinep/PPP, 2023). Glencore responded to the diversion of the Bruno re, which was suspended by the Constitutional Court through Ruling SU-698 of 2017 to protect the affected communities' right to water, by filing a lawsuit against the Colombian government before an international arbitration tribunal . Thus, when the national legal system rules in favor of the communities, the company invokes the international legal system to overturn the decision, turning the protection of fundamental rights into a financial risk for the state, one of the most effective mechanisms in the architecture of impunity as the mine nears closure.

At the Manantial Grande workshop, Wayúu and Afro-descendant leaders discussed land rehabilitation considering Carbones del Cerrejón's activities. The company presents as "reclaimed" areas where only trees as *Pringamoza* (Urera sp.), *Espinito Colorado* (Fabaceae), and *Trupillo* (Prosopis juliflora) grow, while key species of the tropical dry forest, as *Guáimaro* (Brosimum alicastrum), *Caracolí* (Anacardium excelsum), *Ebony* (Libidibia ebano), *Cedar* (Cedrela odorata), and *Algarrobo* (Hymenaea courbaril) fail to thrive because they encounter sterile soil lacking nutrients and adequate underground drainage. This community perspective contrasts with the company's narrative. In initiatives as the Manantial Experimental Farm, which Cerrejón presents as evidence that rehabilitating the land after mining is indeed possible, crops of watermelon, squash, beans, and corn are displayed on rehabilitated soils as proof of recovery (Carbones del Cerrejón, 2026). However, producing food on managed agricultural plots is not the same as restoring the tropical dry forest or the ecological relationships that sustain it. In response, the communities formulated a political position calling for biocultural restoration based on independent soil assessments and their own knowledge of the territory's original vegetation, including species that support ancestral medicine, local wildlife, and spiritual connection to the region. Both the *Guáimaro* and the *Caracolí* fulfill specific

functions in the ecosystem that Carbones del Cerrejón's closure plan fails to recognize, because it is designed to produce rehabilitation indicators rather than to restore the relationships between communities and the territory.

What the company presents as conservation, the Wüin-Manna biological corridor and the hectares planted with species as *Neem* (Azadirachta indica), *Laurel*, and *Trupillo*, was described by participants at the event as "forest window dressing" that does not correspond to the territory's original vegetation. Neem is a tree native to India and Burma that was introduced to the Americas; azadirachtin, a natural insecticide that disrupts the development cycle of insects, is extracted from its seeds, and it is considered an invasive species in countries as Brazil and Australia (Flora Catalog of the Aburrá Valley, n.d.). The women farmers of Cañaverales, in fact, use it as an insecticide to protect their crops. On the one hand, participants noted that this biological corridor already existed. As one participant said it, "the tigers of the Serranía del Perijá used to reach the Sierra Nevada de Santa Marta before the railroad cut off their path" (testimony, Manantial Grande workshop, April 2026). Additionally, they pointed out that Neem disrupts the reproductive cycles of local birds and that the species planted by the company grow stunted or die because they cannot find nutrients in the sterile material presented as rehabilitated soil.

Among the impacts that climate change has had on communities, carbon dioxide emissions take a back seat, and the transformation of daily life in the realm of production becomes evident in the shift in ancestral productive ties. For example, poultry farming has changed to the point where fans are now needed for hens and chicks, as the heat in the environment has begun to kill them, which in turn generates additional energy consumption in a region where energy is scarce. Added to this is the fact that the mine's daily blasting has caused mass deaths of newborn chicks due to the impact of vibrations, as well as documented genetic malformations in goats since 2020, with kids being born without heads, mouths, or noses. Particulate matter pollution has penetrated the land's productive cycles to the point that fruits as soursop and bananas look normal on the outside but appear black on the inside when cut open, while the blasting cracks the soil and depletes its resilience and nutrients. As one of the workshop participants described it:

"We're talking about a natural disaster in the region. The trees think spring has already begun; they bloom, the grass sprouts, everything sprouts, and then it all dies because there's no rain."

(Testimony, Manantial Grande workshop, April, 2026).

On the other hand, it is alarming how, from a community perspective, the disappearance of streams and water pollution have destroyed the foundation of food sovereignty. The municipality of Barrancas, which for generations sustained an independent coffee-based economy, completely lost that productive capacity, and its population came to depend on mining wages. These impacts reflect a socio-ecological rupture that official Scope 1, 2, and 3 emissions metrics fail to capture, because their accounting logic reduces the life of the territory to carbon units and obscures the tangible damage inflicted on water, soil, and local economies.

Constitutional Court Ruling T-614 of 2019 documented, based on a study conducted by the University of Sinú and the Federal University of Rio Grande do Sul with support from Colciencias, that residents of the mining corridor exhibit DNA damage and significantly higher concentrations of chromium, nickel, manganese, and bromine in their blood than those in reference communities located far from the mine, substances associated with respiratory and heart diseases as well as cancer. At the Manantial Grande workshop the communities emphasized the need to frame these impacts within a cultural context, noting that health and culture are inseparable in Wayúu life. In this context, they pointed out that nighttime blasting and the constant passage of the train affect the "dreamers", women who, in Wayúu cosmology, receive and interpret the dreams that guide the people's collective decisions. Corpoguajira measured noise levels of 81.6 decibels during the day and 62 at night in the Provincial Reservation, exceeding the 65 and 55 decibels permitted by Colombian regulations for residential areas. The fact that Wayúu women cannot dream clearly is a blow to the governance of a people that no monetary compensation could ever repair.

In addition, the communities have expressed concern about the mechanisms that Glencore has implemented with some of its other subsidiaries in Colombia. Censat Agua Viva has documented that Prodeco, then a Glencore subsid-

iary in the department of Cesar, used carbon credits from community projects in the Colombian Pacific region between 2017 and 2018, including the Chocó-Darien Conservation Corridor, to compensate its diesel consumption at the La Jagua and Calenturitas mines, thereby avoiding payments of the national carbon tax (Peña, 2024). What Masson (2024) calls a "false climate solution", a mechanism that separates the location where the impact occurs from the location where the compensation is purchased, is manifested in this case within the conglomerate itself. The scope of this mechanism becomes clearer when one considers that the company itself participated in the negotiations for the legislation that created the tax. As documented by Gilbertson (2021), Glencore/Prodeco's environmental director acknowledged having been involved in the discussions that led to this regulation, from which the company later benefited through the "no-causation" mechanism that allows polluting companies to lower the tax by purchasing offsets.

This practice operates under a veil of institutional opacity as a prerequisite. The "no liability" procedure is carried out with the fuel seller, producer, or importer, meaning that neither the Ministry of the Environment nor the National Directorate of Taxes and Customs (DIAN) maintains an official registry of taxpayers or end users who utilize the mechanism, as both entities acknowledged in writing in response to petitions (Peña, 2024). Traceability is thus delegated to the records of private certification programs, whose information is inconsistent. On the one hand, some, like ColCX, publish detailed data; on the other hand, on platforms such as Verra, BioCarbon Standard, and Cercarbono, the names of buyers are frequently omitted, or the serial numbers do not allow for the identification of the end user. Furthermore, there is no detailed public information on how much revenue the state treasury forgoes due to this tax benefit. The fact that the state delegates the traceability of a benefit, which entails forgoing public revenue, to the reporting discretion of private platforms is what defines institutional opacity as a condition that enables the displacement of harm.

The contrast between the corporate reports from Glencore and Carbones del Cerrejón and what has been documented by the communities and in the specialized literature reveals a systematic divergence regarding the state of the territory. Table 6 organizes this contrast into five dimensions: emissions and climate change, land rehabilitation, water, closure and post-closure, and

impacts on food sovereignty, fauna, and flora. In each of these areas, what the company reports as management or compliance appears, from the territorial perspective, as unacknowledged impacts or as responsibility shifted to the State and the communities.

Table 6. Contrast between the corporate reports of Glencore-Carbones del Cerrejón and the documented impacts in the region

Dimension	What Glencore-Carbones del Cerrejón reports	What the communities and the literature document
Emissions and climate change	Annual carbon footprint management, 100% of electricity from certified renewable sources, GHG emissions monitoring through a network of 17 particulate matter monitoring stations, and restoration of tropical dry forests and mangroves as carbon capture solutions (Carbones del Cerrejón, 2026).	Changes in rainfall patterns, extreme heat, and the destruction of productive ecosystems. Climate risk modeling for the country places La Guajira among the departments at risk of water shortages and drought, with expected losses in rain-fed crops and in the ecosystem, services provided by natural forests due to wildfires (Cardona et al., 2020), in a region that IDEAM identifies as one of the most vulnerable to climate change in the country (Ideam, 2015; Manantial Grande workshop).
Land rehabilitation	5,300 hectares restored since the start of operations, an additional 200 hectares by 2025, more than 4 million native tropical dry forest trees planted, 325,426 by 2025 (Carbones del Cerrejón, 2026).	The rehabilitated areas contain barren soil where native species as *Guáimaro*, *Caracolí, Ebony, Cedar,* and *Carob* cannot thrive (Portela, 2025; Manantial Grande workshop, 2026).

Dimension	What Glencore-Carbones del Cerrejón reports	What the communities and the literature document
Water	93% of the water used comes from rainwater runoff and coal beds; monitoring of the Ranchería River through 432 stations; the "Tren del Agua" program, which will deliver 50 million liters of drinking water to 164 communities by 2025 (Carbones del Cerrejón, 2026).	Loss of 68.67 km of watercourses and the disappearance or reduction of more than 17 streams in the Ranchería River basin; 38 interventions affecting surface water sources reported to the ANLA; the presence of heavy metals (manganese, barium, copper, selenium) above permissible limits in the Bruno Stream watershed; the diversion of Bruno Stream led to a request for international arbitration against the Colombian government (Censat Agua Viva & Cinep/PPP, 2023).
Closure and post-closure	Phased closure, with 187 hectares rehabilitated by 2025; a bipartisan closure commission involving labor unions; technical studies and pilot tests aimed at ensuring no net loss of biodiversity (Carbones del Cerrejón, 2026).	The closure avoids a comprehensive assessment of the cumulative damage; the perpetual impacts on water sources and community health remain the responsibility of the state, with no compensation from the company (Portela, 2025; Schliesser, 2024).
Food sovereignty and its impacts on flora and fauna	Programas de diversificación económica; rehabilitación de biodiversidad en colaboración con el Instituto Humboldt (Carbones del Cerrejón, Informe de Sostenibilidad 2025).	The destruction of the coffee economy in Barrancas; reported birth defects in goats since 2020; bird deaths caused by blasting and extreme heat; and the disappearance of native species from the tropical dry forest, in a region where mining activity has disrupted the hydrological cycle and productive ecosystems (Manantial Grande workshop, 2026; Censat Agua Viva & Cinep/PPP, 2023).

Dimension	What Glencore-Carbones del Cerrejón reports	What the communities and the literature document
Health and culture	Air quality monitoring system with 17 stations for PM10 and PM2.5; 100% compliance with the limits set forth in Resolution 2254 of 2017; zero workplace fatalities by 2025; 4,901 periodic medical evaluations of workers (Carbones del Cerrejón2026).	Judgment T-614 of 2019 documented DNA damage and heavy metal concentrations in the blood of residents of the mining corridor, with PM10 measurements exceeding WHO limits even though they comply with Colombian standards. The communities noted that nighttime blasting and train traffic affect the Wayúu "dreamers", whose governance practices depend on dreaming. (Corte Constitucional, T-614/2019; Manantial Grande workshop, 2026).

Source: Prepared by authors based on Glencore (2024b), Cinep/PPP (2023), Portela (2025), Schliesser (2024), and Manantial Grande workshop (April 2026).

5.2. Complaints About Restaurative Justice: The Hidden Face Within Climate Policies

The just transition section of Glencore's 2024–2026 Climate Transition Action Plan states that the company supports dialogue with Indigenous communities and peoples with territorial ties, promotes resilient communities, and advocates for government policies that foster a fair and orderly transition. With regard to Colombia, it states that the company supports the government's efforts to advance the transition and that it has developed environmental protection and capacity-building programs in local communities. This wording does not mention any specific harm caused by Carbones del Cerrejón, does not establish any obligation to provide reparations, and shifts the responsibility for ensuring a fair transition to the Colombian government. In the language of corporate climate governance, the Wayúu and Afro-descendant communities are portrayed as stakeholders to be consulted, but not as rights-holders with historical claims for reparations for the harm caused by mega-mining. This categorization reduces the territorial debt to a matter of corporate relations and shifts the question of reparations to one of participation in the process of the company's withdrawal.

The findings from the Manantial Grande workshop showed that communities identify the mechanisms through which this climate architecture operates in the region. The most detailed case that emerged involves the manipulation of the processes stemming from Constitutional Court Ruling T-704 of 2016, that ordered a review of Cerrejón's Environmental Management Plan and required consultation processes with more than 300 Wayúu communities. It was described how the company has reduced this judicial mandate to a monetary transaction, offering money for leaders to participate in meetings, formalizing minutes stating that the community was compensated, and including clauses that preclude future claims for environmental damages, all while avoiding a joint review of the Environmental Management Plan. According to discussions that emerged during the workshop, the company rewards communities that do not challenge its actions and punishes those that do, it offers equal amounts to groups with vastly different populations to create internal conflicts over the distribution of funds, and it submits compliance reports to the ANLA that do not reflect what is actually happening on the ground. Thus, Ruling T-704 has become a tool that the company uses to legalize the continuation of its operating conditions without modifying them, at a time of closure when it has the greatest incentive to exit quickly and at the lowest possible cost.

The community's rejection of adaptation brings to the local level the ambivalence noted earlier in the theoretical framework; what carbon accounting leaves out of its metrics results in a mechanism that shifts the burden of the negative impact onto the community. Workshop participants argued that talking about adaptation is equivalent to telling the company that it can continue operating because the community has already adapted to the harm, shifting the burden of the crisis onto the victims rather than demanding that the perpetrator cease its harmful behavior and repair the damage caused. By accepting this term, the communities pointed out that there is a risk the company will use it as proof that there is no problem, allowing the extractive model to continue and avoids discussing comprehensive reparations for historical damages. This position ties in with what Schliesser (2024) identified as the central gap in Colombia's regulation of mine closures, current regulations are limited to basic environmental and labor commitments and do not provide for mechanisms of social reparation or guarantees of non-repetition. The workshop participants reached the same conclusion based on their local experiences, where adaptation is in itself an expression of that gap.

During the workshop in Manantial Grande, the Wayúu and Afro-descendant communities gained an understanding of Glencore's Climate Policy and, upon identifying its contradictions, developed a counterproposal with the same formal structure as the corporate document, including objectives, pillars, actions, and monitoring and control mechanisms, but with different content. The exercise drew on ideas from the fieldwork conducted as part of Censat Agua Viva's research on mine closure with comprehensive territorial restoration, so the proposal focuses on the closure and post-closure phases. Thus, in contrast to the emissions management policy, the objective of the communities' counterproposal is to manage resilience in the territories in a participatory and comprehensive manner, addressing cultural, territorial, and spiritual harms. The pillars are recognizing the company's responsibility for climate change at its site of operation, remedying the negative impacts on the territory and communities, and compensating for the damage caused to water sources and its impact on the social fabric. The proposed actions were organized along four fronts:

Table 7. Community proposal for actions toward a just climate policy

Recognition of traditional knowledge and sacred sites	Recognition of traditional knowledge and sacred sites	Rehabilitación y reparación ambiental	Guarantees and structural transformation
Recognition of the cultural and spiritual knowledge of the affected ethnic communities, and a study to quantify and characterize the affected sacred and payment sites.	Effective participation with a voice and a vote in decision-making forums, and access to a repository of studies that includes research from the private sector, the government, academia, and civil society organizations.	A review of rehabilitated areas to determine their relevance to the territory; wildlife and flora rehabilitation programs based on indigenous knowledge; and the decontamination of water bodies, with monitoring that continues beyond the project's completion.	Measures to prevent recurrence, the review of court rulings in favor of the communities with explicit mention of the Bruno Stream channel, and the promotion of activities that reduce dependence on mining as a means of structurally transforming the local economy.

Source: Prepared by authors based on Manantial Grande workshop (April 2026).

The proposed monitoring and oversight mechanism reflects a political stance that calls for the creation of an oversight council composed of communities, oversight bodies, NGOs, and the company. However, later on, in the workshop's working document itself, the word "company" was crossed out—a gesture that reflects the communities' objection that the company lacks the legitimacy to monitor compliance with the debt it itself created, and that monitoring is the responsibility of the other actors mentioned, including the State.

Table 8. Comparison between Glencore's climate policy and the appropriate climate policy developed by the communities

Component	Glencore Climate Policy (2024–2026)	Appropriate climate policy considering the closure (Wayúu and Afro-descendant communities, Manantial Grande workshop, April 2026)
Objective	Reduce Scope 1 and 2 industrial emissions relative to a revised 2019 baseline, subject to a favorable public policy environment.	Manage resilience in local communities in a participatory and comprehensive manner, taking into account cultural, territorial, and spiritual harm, and taking responsibility for the impacts of the climate crisis in the areas where they operate.
Pillars	Management of the direct operational carbon footprint; phased management of Scope 3 emissions through the gradual phase-out of the coal portfolio without new greenfield projects; expansion of minerals for the energy transition; development of new business models.	Acknowledge the company's responsibility for the climate crisis in its area of operation; remedy the negative impacts on the local area and communities; and compensate for the damage caused to water sources and its impact on the social fabric.

Component	Glencore Climate Policy (2024–2026)	Appropriate climate policy considering the closure (Wayúu and Afro-descendant communities, Manantial Grande workshop, April 2026)
Actions	Energy efficiency; electrification of equipment; renewable energy purchase agreements; gradual reduction in thermal coal production; carbon markets and compensation credits.	Recognition of cultural and spiritual knowledge; review of rehabilitated areas based on indigenous knowledge; meaningful participation with the right to speak and vote; access to a repository of studies; rehabilitation programs using native species; study of affected sacred sites and places of worship; water decontamination with monitoring beyond the project's closure; measures to prevent recurrence; reduction of dependence on mining as a structural transformation of the economy.
Monitoring and control mechanisms	Annual report to shareholders; alignment with voluntary frameworks as the recommendations of the Task Force on Climate-related Financial Disclosures; advisory vote at the Annual General Meeting.	An oversight council composed of communities, oversight bodies, academia, and partner organizations; a digital tool for community monitoring; a participatory framework developed collaboratively by the parties involved to document damage in real time.
Stakeholders with legitimacy	Board of directors; shareholders; national governments.	Affected communities; State; partner organizations.
Addressing historical damage	It does not mention any specific damage caused by Cerrejón; it places the responsibility for ensuring a fair transition on the government.	Recognition of the harm from the start of the exploration through to perpetuity; comprehensive redress that includes cultural, spiritual, water-related, and social fabric dimensions.

Source: Prepared by the authors based on Glencore (2024b), and Manantial Grande workshop (April 2026).

Beyond Glencore, there is a debate over how the Colombian government will decide what to do with the areas the company will return to the government that contain active reserves, who will assume the post-closure environmental liabilities, and under what conditions any new activity in the territory will be authorized. Glencore's shareholders are among the few stakeholders with the ability to exert pressure on corporate decisions, as evidenced by the nearly 30% "no" vote on the climate plan presented in 2023. Along the same lines, ACCR (2024) recommended voting against the 2024–2026 Climate Transition Action Plan and against the reelection of the board chair, due to systematic governance failures. The communities themselves need direct access to the arguments, legal precedents, and political strategies to confront the closure of Carbones del Cerrejón and the possible arrival of new projects under a different narrative, projects that threaten the territory by expanding the extractive frontier, which will reproduce the same enclave logic under the guise of sustainability.

Faced with the risk that these transitions might reproduce extractivism in new forms and under new narratives, the Manantial Grande initiative reinforced a political argument that has been taking shape in other community processes where Censat Agua Viva has already been active. The goal is to prevent the closure from becoming the final chapter of the same story. The communities have recognized that they need to be prepared to challenge the terms from the outset, before the next wave of extractive activity takes hold in the territory with a promise of sustainability that merely repeats the same enclave logic.

Finally, the communities' reflections suggest that an appropriate climate policy for a company like Carbones del Cerrejón must be geared toward closure and comprehensive remediation; Cerrejón's Environmental Management Plan is the instrument that should address this responsibility, and, according to the experience of workshop participants, the company avoids reviewing it because it knows that an effective analysis of its impacts in light of the climate crisis would demonstrate the unfeasibility of continuing to operate as it has been doing.

6.

Conclusions

Based on the detailed analysis in this report, it is concluded that Glencore's climate policy functions as a global architecture of legitimization, while its subsidiary Carbones del Cerrejón serves as its local showcase for pretense. This structure does not represent a break with the extractivist model, but rather a strategic maneuver to preserve the accumulation of fossil capital under the guise of sustainability and the energy transition.

First, corporate climate governance has fallen into the "carbon metrics trap", reducing a complex socio-ecological crisis to the abstract unit of metric tons of CO_2 equivalent (tCO_2e). This technical abstraction serves as a "veil of impunity" that obscures profound territorial harms and seeks to allow the fulfillment of corporate targets to overshadow the pursuit of environmental justice. We cannot allow technical climate discourse to obscure the need for water justice and comprehensive reparations, that must take precedence over any accounting metric.

Second, this analysis concludes that Glencore's "net-zero" goals are a sham of responsibility that sidesteps the core of its impact: Scope 3. The discourse on social responsibility and corporate sustainability is revealed to be a utopia, since companies will not voluntarily abandon a profitable business nor seek to internalize costs on their own initiative. Based on the premise that "what the market has damaged will not be fixed by the market", it becomes clear that the transition away from fossil fuels depends on the political decisions of governments and not on corporate will.

Finally, the closure announced for 2034 is seen as a "strategic escape" to evade accumulated ecological debt. A just energy transition is not possible without placing water justice at the center; any proposal that ignores this historical debt will amount to a new phase of corporate dispossession.

7.

Recommendations

For Glencore and Carbones del Cerrejón: From "cosmetic" measures to su stantive responsibility:

- Inclusion of Scope 3 in the Exit Strategy: The company must acknowledge its total industrial footprint (381.2 million tCO2e) as part of its climate debt, with a binding commitment not to launch new projects.

- Adoption of the "Appropriate Climate Policy": The company must abandon the "power up today, move forward tomorrow" model and adopt the pillars proposed by the Wayúu and Afro-descendant communities. This policy must focus on comprehensive reparations, justice, and access to information, recognizing that cultural, spiritual, and territorial impacts cannot be compensated for through carbon credits or carbon tax exemption mechanisms. A critical approach is needed that goes beyond a simplistic view of emissions.

- Withdrawal from International Arbitration (ISDS): It is recommended to cease using international tribunals, given that the use of ISDS turns judicial decisions in favor of rights into financial liabilities for the Colombian government. This entails a fiscal burden due to defense costs and millions in compensation payments that divert resources from social and environmental policies.

For the National Government:

- Reform of Mining Closure Regulations: The government must strengthen the regulatory framework by capitalizing on the current debates regarding the new Mining Law and Decree 0742 of 2026 on mine closure. It is imperative that the regulations require the remediation of impacts "in perpetuity" before accepting the return of mining titles.

- Exclusion Criteria for Tax Benefits: It is recommended that exclusion criteria be established for companies such as Glencore regarding carbon tax exemption benefits. These benefits should not be granted to large emitters that do not meet robust decarbonization standards aligned with the 1.5 °C target (with actual reductions of 90–95%) or that have pending court rulings (as T-704) that have not been implemented.

- Independent Monitoring Systems: Create a sovereign data infrastructure to validate territorial claims that current CO_2 metrics overlook.

For the High Courts and the Judiciary:

- Post-Ruling Monitoring of Judgment T-704: Prevent compliance from being reduced to a "monetary settlement" and ensure the effective protection of the Bruno Stream (Sentencia de la Corte Constitucional SU 698 of 2017) and other bodies of water as prevailing human rights.

For the World Bank, Financiers, and Shareholders:

- Audit of "net-zero" Plans: Vote against boards of directors that use adjusted baselines or omit Scope 3. Financing must be conditional on the resolution of environmental liabilities and the binding participation of communities.

For International Organizations and the United Nations System:

- Deconstruction of the Paris Agreement: Revise governance frameworks so that international standards require reporting on material territorial damage at the same level as GHG emissions, thereby preventing "green extractivism".

8.

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Appendix 1. Comparison of Glencore's 2024–2026 Climate Action Plan with International Climate Integrity Frameworks

1. Integrity Matters

The report *Integrity Matters: Net-Zero Commitments by Businesses, Financial Institutions, Cities, and Regions* was published in 2022 by the High-Level Expert Group established by the United Nations Secretary-General to strengthen the credibility of net-zero commitments made by non-state actors. It is not a certifiable standard, but rather a framework of ten recommendations on integrity, transparency, and accountability. Among its guidelines are the adoption of interim targets for 2025, 2030, and 2035; a reduction in emissions of approximately 50% by 2030; coverage of Scopes 1, 2, and 3 and the value chain; the development of verifiable transition plans; the phasing out of fossil fuels; the exclusion of voluntary credits from compliance with interim targets, without prejudice to their possible use to support additional mitigation outside the value chain; alignment of investments and advocacy with climate objectives; and annual disclosure of progress through independently verified information (United Nations High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities, 2022).

2. Corporate Net-Zero Standard of SBTi

The Science Based Targets Initiative's *Corporate Net-Zero Standard* is a technical standard designed to guide the formulation and validation of science-based corporate targets that are consistent with achieving net-zero by 2050 at the latest. It requires companies to set short- and long-term targets, significantly reduce emissions from their operations and value chains, include material Scope 3 emissions, and offset, through removals, only those emissions that remain after achieving the long-term reduction targets. Mitigation actions taken outside the value chain can contribute to global mitigation but do not substitute for meeting internal reduction targets (Science Based Targets initiative, 2024a, 2024b).

This analysis uses version 1.2 of the Corporate Net-Zero Standard and its associated criteria, effective as of March 13, 2024. This selection is based on its temporal alignment with Glencore's 2024–2026 Climate Transition Action Plan, published on March 20, 2024. Consequently, the comparison is based on the technical criteria available at the time of the plan's publication and not on subsequent versions of the standard (Science Based Targets initiative, 2024a, 2024b).

Glencore does not have SBTi-validated targets, and because of its direct involvement in coal mining and production, it is not eligible to submit them for formal validation. Therefore, this analysis does not examine compliance with the standard nor does it replace a validation process; rather, it assesses the substantive alignment between the company's disclosed targets and the technical criteria of Version 1.2 regarding ambition, coverage, emissions reduction, and residual emissions offsetting.

3. Oxford Principles

The *Oxford Principles for Net Zero Aligned Carbon Offsetting*, revised in 2024, provide a framework for guidance on the use of credits and offsets within net-zero strategies. Its four principles propose prioritizing the reduction of direct and indirect emissions and ensuring the environmental integrity of the credits used; gradually transitioning from credits based on avoided or reduced emissions to carbon removals; moving toward removals with durable storage and a low risk of reversal; and supporting, starting now, the development and scaling up of removal solutions aligned with net-zero goals. By 2050, any offsetting of residual emissions should be based entirely on removals and not on reductions attributed to other actors (Axelsson et al., 2024).

4. Valuation Methodology

The evaluation uses four categories.

Valuation	Definition
High alignment	The plan incorporates these criteria through explicit, quantified, and verifiable commitments, accompanied by implementation mechanisms.
Partial alignment	The criterion is recognized but has limitations in terms of ambition, scope, timelines, indicators, funding, or enforcement mechanisms.
Low alignment	The disclosed information contains material omissions, qualifications, or decisions that are inconsistent with the guidance provided by the benchmark.
Undetermined	Public records do not provide sufficient information to determine the degree of alignment.

The unit of analysis is the 2024–2026 Climate Transition Action Plan. The comparison with the SBTi is analytical and for reference purposes only, as it does not constitute a formal compliance assessment or a validation process. The matrix identifies the benchmark underpinning each guideline to avoid treating frameworks with different scopes as equivalent.

The assessment also considers the relationship between the matrix's overarching policy and the territorial impacts identified in Carbones del Cerrejón. This dimension is presented as an expanded territorial criterion of the research and is analyzed separately from the main comparison with Integrity Matters, the SBTi, and the Oxford Principles. In this way, the perspective of climate justice and socio-ecological reparations complements, without being conflated with, the international criteria focused on targets, inventories, reduction pathways, and compensations.

5. Matriz de alineación documental

Dimension	Applicable benchmark	Benchmark guidance
Public commitment and interim goals	*Integrity Matters; SBTi 1.2*	*Make a public commitment to net-zero emissions with quantified interim targets.*
Ambition for 2030	*Integrity Matters*	*Reduce emissions by approximately 50% by 2030 and achieve net-zero by 2050 at the latest.*
Scientific consensus on 1.5 °C	*SBTi 1.2; Integrity Matters*	*Base the goals on scientific methodologies and pathways that are compatible with 1.5 °C and involve no or only limited overshoot.*

Evidence in Glencore's plan	Assessment	Identified gap
Glencore has set reduction targets of 15% by 2026, 25% by 2030, and 50% by 2035, relative to a 2019 baseline, and aims to achieve net-zero by 2050.	*Partial*	*There are interim goals, but their adequacy depends on their compatibility with a 1.5 °C scientific trajectory and on the integrity of the corporate framework.*
Glencore's goal for 2030 is a 25% reduction compared to 2019.	*Low*	*The percentage is substantially below the Integrity Matters benchmark. Although the base years for both commitments are not identical, the difference highlights a significant gap in ambition.*
Glencore acknowledges that it does not have a target that has been defined or validated as science-based by the SBTi. Because of its direct involvement in coal mining, the company is also not eligible for formal validation.	*Low*	*The plan does not demonstrate, through an external and explicit scientific methodology, that its targets are consistent with a 1.5 °C carbon budget. The lack of validation does not in itself constitute a shortcoming, but it limits external verification of the adequacy of the targets.*

Dimension	Applicable benchmark	Benchmark guidance
Coverage for Scopes 1, 2, and 3	*SBTi 1.2; Integrity Matters*	*Include Scopes 1 and 2 and set targets for Scope 3 where material. Under SBTi 1.2, short-term targets must cover at least 67% of mandatory Scope 3 emissions, and long-term targets must cover at least 90%.*
Perimeter and baseline integrity	*SBTi 1.2*	*Recalculate the baseline and revise the targets when significant changes in structure or inventory materially affect its representativeness.*
Absolute reductions within the value chain	*SBTi 1.2; Oxford Principles*	*Prioritize significant reductions in direct emissions and emissions throughout the value chain before resorting to carbon neutralization or compensations.*

Evidence in Glencore's plan	Assessment	Identified gap
The plan includes scopes 1, 2, and 3 of industrial assets under operational control, but excludes emissions associated with third-party volumes traded by the marketing business, except for certain transportation and handling components.	*Partial*	*Exclusions can significantly reduce the scope of the value chain. Without quantifying these emissions, it is not possible to determine whether the scope falls below the SBTi 1.2 coverage thresholds.*
The plan stipulated that Elk Valley Resources' assets would not be included in the baseline or existing targets and that its emissions would be reported separately, since the acquisition had not yet been finalized at the time the plan was published.	*Undetermined*	*The separate treatment prevents existing targets from immediately reflecting the expansion of the coal portfolio. It is necessary to quantify the effect of the acquisition and determine whether its materiality triggers a recalibration of the baseline and targets.*
The plan includes efficiency measures, electrification, alternative fuels, the depletion or closure of assets, and a gradual reduction of the coal portfolio.	*Partial*	*A distinction must be made between the portion of the reductions resulting from operational changes and the portion resulting from the depletion, sale, closure, or change in the scope of assets.*

Dimension	Applicable benchmark	Benchmark guidance
Reduction in Fossil Fuels	*Integrity Matters*	*Establish a concrete and verifiable pathway for the phased-out of fossil fuels and prevent new capacity that is incompatible with the 1.5 °C target*
Net-Zero Conditionality	*Integrity Matters*	*Formulate a robust commitment whose implementation does not depend on general or unspecified conditions.*
Use of Carbon Credits	*SBTi 1.2; Integrity Matters; Oxford Principles*	*Credits should not be counted toward meeting short- or long-term internal targets. Compensation should be limited to residual emissions that remain after significant reductions have been achieved.*
Definition of residual emissions	*SBTi 1.2; Oxford Principles*	*Identify and justify the emissions that will remain after achieving deep, long-term reductions.*

Evidence in Glencore's plan	Assessment	Identified gap
Glencore announces a responsible phase-out of thermal coal and states that it will not develop new thermal coal projects in undeveloped areas. However, it anticipates that unabated thermal coal may continue to be used for electricity generation after 2040 if clean energy and carbon capture technologies do not advance sufficiently.	*Low*	*The phase-out of coal depends on demand trends, public policies, and future technologies, rather than following a clear and verifiable corporate trajectory.*
The goal of net-zero by 2050 is expressly contingent on the existence of a favorable political environment.	*Low*	*The stating serves as a broad provision that may allow for revising or postponing the target in response to economic, regulatory, or technological changes.*
Glencore states that it will prioritize reducing its emissions and will consider compensating residual and hard-to-abate emissions as part of its path toward 2050. It is also commercially involved in the purchase, sale, and structuring of credit facilities.	*Partial*	*The plan does not quantify residual emissions or clarify with sufficient precision whether credits will affect compliance with the 2026, 2030, and 2035 targets.*
The plan addresses residual emissions that are difficult to reduce, but it does not specify their expected volume, breakdown by activity, or proportion relative to the 2050 carbon footprint.	*Low*	*The plan does not quantify the remaining emissions or demonstrate that they come only from sources that cannot be eliminated. Nor does it break down their composition by scope, activity, or asset.*

Dimension	Applicable benchmark	Benchmark guidance
Transition to removals	*SBTi 1.2; Oxford Principles*	*Gradually increase the proportion of removals until all residual emissions are offset by removals by 2050.*
Durability and risk of reversal	*Oxford Principles*	*Prioritize removals that involve long-term storage, demonstrable additionality, and mechanisms to manage the risk of subsequent carbon release.*
Transparency regarding compensations	*Integrity Matters; Oxford Principles*	*Disclose the projects, methodologies, volumes, records, withdrawals, uses, and verifications of credits.*
Governance, monitoring, and reporting	*Integrity Matters; SBTi 1.2*	*Assign responsibilities to governing bodies, disclose the inventory and progress toward goals annually, and utilize independent verification.*

Evidence in Glencore's plan	Assessment	Identified gap
Glencore refers generally to credits, compensations, and natural and technological removals, but does not establish a quantified pathway for replacing credits based on avoided emissions with removals.	*Low*	*The plan should specify percentages, dates, and criteria for the gradual transition to removals.*
The company states that it will prioritize quality and integrity in its credits and that it will adapt its internal standards to market developments, but it does not provide specific public criteria regarding the permanence, reversal, replenishment, or duration of storage.	*Low*	*The lack of rules regarding duration, monitoring, safeguards, reversal, and substitution of credits makes it impossible to demonstrate that the anticipated neutralization would be sustainable.*
Glencore states that it will disclose the use of credits when required by regulation and recognizes the value of greater transparency.	*Partial*	*Disclosure should not depend on a regulatory requirement, but rather should constitute an annual commitment covering all credits acquired, sold, or retired.*
The plan assigns responsibilities to the board of directors and management, establishes an internal body on climate change, and provides for annual reports on its four pillars.	*Partial*	*The plan establishes internal responsibilities and annual reporting requirements, but does not specify the scope of the independent verification of the inventory, progress, changes to the scope, and the use of credits.*

Dimension	Applicable benchmark	Benchmark guidance
Consistency in capital allocation	*Integrity Matters*	*Align investments, acquisitions, capital expenditures, and portfolio decisions with a 1.5 °C pathway.*
Fair transition	*Integrity Matters*	*Incorporate workers, communities, human rights, and an equitable distribution of costs and benefits.*
		Expanded geographic
Reparations for territorial damage	*Expanded scope of the research*	*Link climate policy to the environmental and social impacts associated with operations and the value chain, from the perspective of climate justice and socio-ecological reparations.*

Source: Prepared by the authors based on Glencore (2024); United Nations High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities (2022); Science Based Targets initiative (2024a, 2024b); and Axelsson et al. (2024).

Evidence in Glencore's plan	Assessment	Identified gap
The plan combines investments in minerals deemed necessary for the transition with the continued operation and acquisition of coal assets, including evr.	*Baja*	*There is no evidence that all investment decisions are consistent with an absolute reduction in the fossil fuel portfolio or with a 1.5 °C carbon budget.*
Glencore incorporates principles of just transition, dialogue with stakeholders, job training, and support for economic diversification.	*Partial*	*General commitments do not necessarily translate into binding territorial plans, specific budgets, decision-making participation, or redress mechanisms.*

cal scope of the research

Glencore's global policy focuses on emissions, portfolio, risks, governance, and capital allocation, but it does not address the water, environmental, and community liabilities accumulated by operations as Carbones del Cerrejón.	*Baja*	*The strategy should incorporate water justice, socio-ecological reparations, binding participation, financial guarantees for decommissioning, and obligations regarding cumulative harm.*

Note:: Reparations for territorial damage do not constitute an autonomous and equivalent category in the three frameworks examined. It is incorporated as an expanded territorial criterion of the study and is not included in the assessment of alignment with international frameworks.

6. Results Summary

Of the sixteen dimensions comparable to international frameworks, seven show partial alignment, eight show low alignment, and one cannot be determined based on the available information. No dimensions with high alignment were identified. Partial alignment is concentrated in the areas of planning, reported coverage, operational measures, governance, disclosure, and fair transition, while low ratings correspond primarily to ambition, demonstration of scientific alignment, the phase-out of coal, net-zero conditionality, the definition of residual emissions, removals, and the consistency of capital allocation.

The main gaps are concentrated in the structural dimensions. The 25% reduction target for 2030 falls short of the approximately 50% benchmark set by Integrity Matters. The plan also fails to demonstrate, through an external and explicit scientific methodology, that its targets are compatible with a 1.5 °C pathway. Although it incorporates Scopes 1, 2, and 3 emissions from industrial assets under operational control, it excludes emissions associated with third-party volumes traded by the company. The lack of quantification of these emissions makes it impossible to determine whether the coverage meets the thresholds set forth in SBTi 1.2.

Further information is also needed regarding the scope of the corporate reporting. The plan called for reporting Elk Valley Resources' emissions separately, since the acquisition had not yet been finalized when it was published. Without an estimate of this transaction's impact on the consolidated inventory, it is not possible to determine whether the change triggers a recalibration of the baseline and targets. Furthermore, the reduction in coal use remains contingent on energy demand, public policy, and the future development of carbon capture technologies, while the possibility of using unmitigated thermal coal after 2040 remains open.

The carbon credit strategy shows limited alignment. Although Glencore states that it will prioritize emissions reductions and reserve compensations for residual or hard-to-abate emissions, it does not quantify those emissions, does not establish a pathway toward the exclusive use of removals, nor does it develop sufficient public criteria regarding permanence, durability, and the risk of reversal. Nor does it commit to full disclosure of credits regardless of regulatory requirements.

The three frameworks analyzed focus primarily on the integrity of targets, inventories, reduction trajectories, and compensations. For this reason, the remediation of territorial damage is presented as an expanded criterion of the research and not as a requirement equivalent to those of the three frameworks. From this perspective, an additional gap is identified, given that the parent company's climate policy does not incorporate Cerrejón's socio-ecological liabilities as integral elements of its climate responsibility. The impacts on water, biodiversity, health, livelihoods, and community autonomy remain separate from the company's global corporate goals.

7. Conclusion of the Appendix

This comparison leads to the conclusion that Glencore's 2024–2026 Climate Transition Action Plan shows partial alignment in several areas, including planning mechanisms, stated scope, governance, and disclosure, but low alignment in the components that would require a structural transformation of its fossil-fuel business model. The main gaps relate to the insufficient ambition of the 2030 target, the lack of an external and explicit demonstration of compatibility with the 1.5 °C goal, limitations in the scope of the value chain, the conditional nature of the coal phase-out, and the absence of a verifiable strategy to define and offset residual emissions through durable removals.

The existence of targets, indicators, and reports is not sufficient to consider corporate climate policy comprehensive. Its credibility requires an absolute and accelerated reduction in the production and sale of fossil fuels, transparency in the coverage of material emissions, restricting offsets to truly residual emissions, and linking global targets to territorial obligations regarding prevention, remediation, and a fair transition. In the case of Cerrejón, this means that decarbonization cannot be assessed separately from the accumulated water, ecological, and social debt in La Guajira.

Appendix 2. Regarding Section 5: The Echo of Voices and Reflections from the Results Feedback Session

El The results-sharing session held with leaders of the Wayúu people and Afro-descendant communities in La Guajira made it possible to compare the

research findings with the accumulated experience of those who have for decades contested the terms of coal mining in the territory, thereby broadening the study's political scope.

Participants noted that they are the ones who bring to light the impacts that companies fail to account for, this ties into the central argument of Chapter 5 regarding the gap between corporate discourse and the reality on the ground. It is the communities themselves who have identified, documented, and challenged this reality using their own tools, ranging from culture, writing, and poetry to international advocacy before human rights organizations and Glencore's own shareholders.

Speaking out about the impacts of the Cerrejón company meant facing blacklisting, attacks, and threats. That history of resistance, that paved the way for other organizations and women from other communities, is the political context without which the findings of this research would not carry the weight they do. The evidence presented in Chapter 5 is inseparable from the people who produced it with their bodies and voices.

Concerns also emerged during the discussion that broaden the scope of the research. The arrival of new extractive projects under the guise of sustainability, including concerns about fracking, was identified as a threat that communities are already analyzing using the tools they developed in their struggle against Cerrejón. This analysis confirms that the struggle does not end with the mine's closure and that communities must be prepared to confront the next wave of extractive projects from the very beginning.

The voices on the program pointed out that La Guajira is a resource-rich region whose population has been impoverished, and that this paradox is the result of the economic system implemented 40 years ago. They assert that what hurts Glencore the most is its international image, because it directly impacts its profits. This assertion is an advocacy strategy that the communities have tested with concrete results, including the withdrawal of some of the company's shareholders as a result of international pressure.

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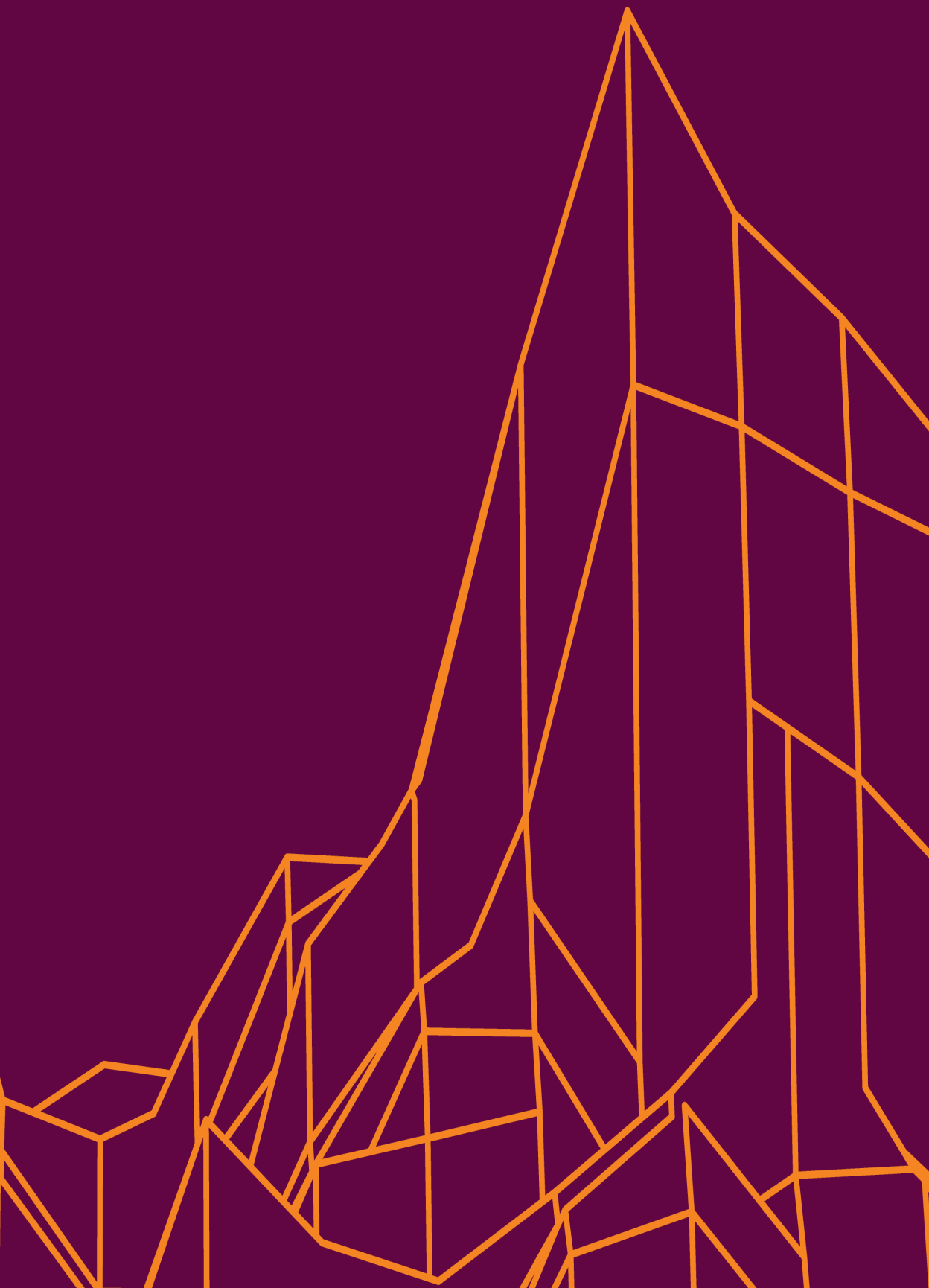
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CENSAT AGUA VIVA

Who bears the real costs of coal when the climate crisis is reduced to mere emissions accounting?

In a world clamoring for decarbonization, the most carbon-intensive transnational corporations have learned to speak the language of the energy transition to rewrite their own corporate legitimacy. This research report unravels how the climate policy of Glencore and its Colombian subsidiary, Carbones del Cerrejón, actually operates as a sophisticated "global architecture of legitimation." By reducing a complex, historical socio-ecological crisis to the abstract unit of tonnes of CO_2 equivalent (tCO_2e), a technical "veil of impunity" is therefore imposed, rendering invisible the material and cumulative devastation caused by over forty years of extraction in La Guajira, Colombia.

Through rigorous methodological triangulation, contrasting polished corporate sustainability reports with the local communities' knowledge of the territory, the authors reveal the systematic gap between corporate rhetoric and the reality on the ground. Where the company claims successful "forest rehabilitation," Wayúu indigenous communities and Afro-descendant communities document a biological collapse driven by exotic and invasive species; where "net-zero" targets for 2050 are promised, Scope 3 emissions, which account for over 90% of the actual industrial footprint, are strategically omitted; and where the end of the mining contract by 2034 is announced, a "strategic exit" looms, designed to evade ecological debt and saddle the State with perpetual environmental liabilities, such as the loss of 17 streams and the alteration of the Ranchería River.

This report serves as a powerful warning and an indispensable roadmap for collective action: there can be no just energy transition without placing water justice, comprehensive reparation, and territorial autonomy at the center. As a mine closure looms, the counter-narratives and "appropriate climate policy" forged from the heart of the territory by those who resist demonstrate that the future of life cannot be left under the accounting control of transnational capital.

Mining conflicts