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Global Chains, Local Concerns: The Role of Due Diligence in Shaping Corporate Responsibility and Social Equity.

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ABSTRACT (DE):

Diese Arbeit untersucht, wie das deutsche Lieferkettensorgfaltspflichtengesetz (LKSG) die unternehmerische Verantwortung in den Kohle-Wertschöpfungsketten beeinflusst, die El Cerrejón und die Wayuu in La Guajira, Kolumbien, mit deutschen Energieunternehmen verbinden, und welche Folgen sich daraus für soziale Gerechtigkeit der Wayuu ergeben. Vor dem Hintergrund Deutschlands verstärkter Kohleimporte seit 2022 und langjähriger Vorwürfe zu Umwelt- und Menschenrechtsverletzungen rund um El Cerrejón kombiniert die Studie das Global-Value-Chain-Framework mit der politischen Ökologie (Skalenperspektive), um Governance-Strukturen wie das Potenzial gesetzlich verankerter Beschwerdeverfahren für Scale Jumping zu analysieren. Empirisch werden die Kette vom Bergwerk bis zum Käufer kartiert, zentrale deutsche Abnehmer identifiziert und die Beziehungen zwischen privaten, öffentlichen und zivilgesellschaftlichen Governance-Akteuren rekonstruiert. Methodisch stützt sich die Arbeit auf Wertschöpfungsketten-Mapping, die Auswertung von Unternehmens- und Berichtsquellen sowie halbstrukturierte Interviews, darunter mit einer Vertretung der Wayuu.

Die Ergebnisse zeigen: Zwar schafft das LKSG formale Risiko- und Beschwerdekanäle, doch bewusst erzeugte Intransparenz, geringe Hebel gegenüber (mittelbaren) Zulieferern, eine reduzierte Auslegung von Sorgfaltspflichten und die schwache Einbindung der Zivilgesellschaft begrenzen transformative Wirkungen. Die größten Handlungsspielräume und Reputationsgewinne fallen Unternehmen zu, während betroffene Gemeinschaften kaum praktisch gestärkt werden. Die Arbeit empfiehlt, Nachverfolgbarkeit und unabhängige Aufsicht zu stärken, Beschwerdewege zugänglich und glaubwürdig zu gestalten und Vertretungsaktionen nach § 11 LKSG als Pfad für wirksame Maßstabsprünge systematisch zu prüfen.

Abstract (EN):

This thesis examines how Germany's Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LKSG) shapes corporate responsibility in coal value chains that link El Cerrejón and the Wayuu in La Guajira, Colombia, to German energy producers, and considers the implications for social justice among the Wayuu. Motivated by Germany's post-2022 turn to imported coal and long-standing allegations of environmental harm and rights violations around El Cerrejón, the study combines the Global Value Chain framework with Political Ecology's concept of scales to analyse governance structures and the potential for scale jumping through statutory grievance mechanisms. The research maps the coal chain from mine to buyer, identifies key German purchasers, and reconstructs governance relations among private, public, and social actors. Methods include value chain mapping, analysis of corporate and statutory reports, and semi-structured interviews with stakeholders, including a Wayuu defence representative. The findings indicate that while the LKSG introduces formal risk management and complaint channels, deliberate opacity in supply chains, weak leverage over second-tier suppliers, narrow interpretations of due diligence, and a lack of integration of Civil Society limit any transformative impact. Agency gains accrue primarily to corporate actors through reputational benefits, with minimal practical empowerment for affected communities. The thesis recommends strengthening traceability and independent oversight, redesigning grievance channels for accessibility and credibility, and testing representative actions under section 11 as a pathway to meaningful scale jumping.

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INTRODUCTION

Following the outbreak of war in Ukraine in 2022, like many European nations, Germany faced energy shortages due to, among other things, moving away from Russia as the main cost-effective energy and resource supplier (Clean Energy Wire, 2023, pp. 59-67)(Reuters, 2023, pp. 154-162). This led to increased coal imports from countries like Colombia as a stopgap measure to ensure energy security (Reuters, 2023, pp. 154-162). One of the primary coal producers in Colombia is El Cerrejón, also one of the world's largest open-pit coal mines, located in the department of La Guajira (Deutsche Welle, 2022, pp. 349-357). El Cerrejón, now wholly owned by Glencore, was developed in the 1980s as a joint venture between Colombian and foreign companies. Its development and ongoing expansion have continuously been linked to displacements and environmental degradation, which have disproportionately affected the Wayúu communities. This mine has thus been at the centre of significant controversy and conflict, particularly regarding its impacts on the Indigenous Wayúu inhabitants of the region (Corporate Accountability Lab, 2021, pp. 190-203)(BHRRC, 2023, pp. 339-347)

The Wayúu and various human rights organisations have engaged in numerous legal battles against the mine operators, with several notable cases in Colombian courts and appeals to international bodies, such as the Inter-American Commission on Human Rights. The Colombian government and the mining companies involved have continuously been criticised for their inadequate response to the grievances of the Wayúu, because, although there have been some government-led consultations and compensatory measures, many activists and members of the Wayúu community regard these as insufficient (Corporate Accountability Lab, 2021, pp. 190-203) (BHRRC, 2023, pp. 380-388). The allegations against El Cerrejón include violations of the right to water, health issues due to pollution, and high water consumption by the mine, leading to environmental degradation, as well as environmental degradation in general. Furthermore, various reports denounce infringements of Indigenous rights through the lack of proper consultation and consent for mining activities on ancestral lands, and economic and social impacts that threaten the traditional livelihoods and cultural practices of the Wayúu (Deutsche Welle, 2022, pp. 349-357)(Corporate Accountability Lab, 2021, pp. 190-203)(BHRRC, 2023, pp. 339-347) (Ullola, 2020).

The tense situation surrounding El Cerrejón and the Wayúu people intersects with broader global issues of corporate social responsibility (CSR), supply chain accountability, and the dynamics of international trade, particularly in light of Germany's recent increases in coal imports from Colombia following the outbreak of war in Ukraine (Clean Energy Wire, 2023, pp. 59-67). The German *Lieferkettensorgfaltspflichtgesetz*, or Supply Chain Due Diligence Act (LKSG), which came into effect in January 2023, adds significant relevance to this discussion. This law mandates that large German companies verify that their global supply chains are free from human rights violations and environmental destruction. This requires them to implement due diligence processes that identify, prevent, and mitigate risks of human rights abuses, not only among their direct suppliers, but throughout their entire supply chain (German Federal Government, 2023, pp. 197-204)(LKSG, 2021) (ECCJ, 2023, pp. 309-317).

The LKSG emerged from growing concerns about the inefficiencies and limitations of voluntary CSR initiatives. Scholars and practitioners pointed out that voluntary CSR policies lacked the enforcement mechanisms and legal accountability necessary to effect real change, leading to ongoing abuses and damage, especially in high-impact industries such as mining. Furthermore, many corporations have been accused of engaging in "greenwashing" by portraying themselves as environmentally responsible purely for marketing purposes without making substantial changes to their business practices. This can be attributed to the inherent conflict of interest in CSR where corporations' primary goal is to maximise shareholder value (LeBaron & Rühmkorf, 2019, pp. 281-303). This strictly financial imperative clashes with the additional costs and operational changes required to genuinely implement socially and environmentally responsible practices. For companies, balancing profit motives with ethical considerations often results in minimal compliance rather than transformative action, unless there is regulatory pressure to do otherwise. This realisation spurred advocacy by broader international movements calling for more binding regulatory frameworks, ultimately leading to the enactment of laws such as the LKSG. These laws impose mandatory human rights and environmental due diligence obligations, requiring companies to systematically identify, assess, and mitigate risks within their supply chains.

While the German Supply Chain Act is recent, it is part of a broader trend towards more stringent regulation of corporate activities in supply chains. Several other countries have implemented similar regulations before Germany, each with its specific requirements and scope. For instance, the United Kingdom's UK *Modern Slavery Act*, enacted in 2015, requires businesses to publish an annual statement detailing the steps they have taken to prevent modern slavery in their operations and supply chains. France's *Duty of Vigilance Law*, adopted in 2017, mandates large companies to implement and publish vigilance plans in order to prevent human rights abuses and environmental damage throughout their global supply chains. These laws share a common goal of enhancing corporate accountability for supply chain practices, but they differ in enforcement mechanisms, specific requirements, and the extent of penalties for non-compliance.

The German Supply Chain Act orders companies to establish risk management systems, including regular risk assessments, taking remedial action when violations occur, and reporting on compliance annually (German Federal Government, 2023, pp. 197-204)(ECCJ, 2023, pp. 309-317). The law aims to enhance transparency and enforce the protection of human rights and environmental standards in international business practices. It initially targeted larger companies, with plans to extend its scope to smaller companies in subsequent phases beginning in January 2024. (German Federal Government, 2023, pp. 197-204). A key component of the LKSG and its mandated risk management system is the complaints mechanism, which allows affected communities who believe they have been adversely affected by the activities of a company in a German firm's supply chain to bring their grievances directly to German companies. This facilitates *scale-jumping* where local issues are escalated to global governance agendas (PRIF, 2024, pp. 72-95)(BHRRC, 2023, pp. 356-364).

For impacted communities in resource-exporting regions of the Global South, such as the Wayúu in Colombia, the ability to form territorial networks at multiple levels has been pivotal in achieving critical influence. This influence is essential in light of the significant gap between regulation and enforcement, as international pressure often constitutes the primary leverage through which affected communities can make their voices heard. As previously noted, such international advocacy, both *with* and *on behalf of* the Wayúu, has prompted government actions in Colombia, leading to landmark court rulings concerning human rights violations by El Cerrejón. Consequently, because it should facilitate *scale-jumping*, the grievance mechanism mandated by the LKSG holds considerable promise in transforming German purchasers along the value chain into advocates for communities affected by local supplier operations.

This study occupies a critical nexus at the intersection between the Global Value Chain (GVC) framework and Political Ecology, particularly its inherent concept of *scales*. The GVC aspect provides an analytical tool for understanding the organisation and governance of global economic activities. It identifies how lead firms (usually large transnational corporations, hereafter abbreviated as TNCs) exert control over suppliers, setting standards, prices, and delivery schedules, and how these decisions impact people and environments in different parts of the world (Gereffi et al., 2005, pp. 78-80). GVC also emphasises how governance is distributed across private, public, and social actors, each influencing the chain's outcomes through various mechanisms, including corporate codes of conduct, government regulations, and NGO activism (Mayer & Gereffi, 2010, pp. 7-9).

Political Ecology as a literature stream examines how socio-environmental issues are influenced by power relations, which operate at different scales—local, national, and global (Blaikie & Brookfield, 1987, pp. 17-19; Swyngedouw & Heynen, 2003, p. 900). The concept of *scales* refers to the different levels at which environmental and social dynamics play out, recognising that these scales are not fixed but are socially constructed and can be shifted or "jumped" by actors to influence outcomes (Smith, 1992, p. 66)(Swyngedouw, 1997, p. 142). *Scale-jumping* is a process where local issues are escalated to the global stage to gain broader attention and mobilise international pressure for change (Smith, 1992, pp. 66-67). This process is critical in contexts where local governance is weak or complicit in harmful practices (Swyngedouw, 2004a, pp. 34-35).

Specifically, in the case of German energy producers sourcing coal from El Cerrejón, the GVC framework aids in tracing value chains and analysing the power relations between buyer and supplier, as well as how the German firms normalise their codes on human rights and environmental standards throughout their value chains. (Cardoso & Turhan, 2018, pp. 36-37)(ECCHR, 2023, p. 4). Political Ecology's concept of *scales* explains how affected communities might use international grievance mechanisms (such as the ones mandated by laws like the LKSG) to jump scales, moving their concerns from a local context (where they might be ignored) to a global one, thereby compelling TNCs and international bodies to take action (Keck & Sikkink, 1998, p. 12)(Smith, 1992, pp. 66-67).

While ample research exists exploring the dimensions and impacts of CSR initiatives across global supply chains, the implementation of the LKSG marks the introduction of new, relatively unexplored legislation. There remains a significant gap in the literature regarding its effectiveness, particularly the complaints mechanism concerning second-tier suppliers' activities down the value chain. This paper aims to address this gap by critically examining how the LKSG's risk management requirements and complaints mechanism impact *scale-jumping*, where local issues are escalated to global governance agendas. Additionally, the analysis will be combined with an examination of the value chains and governance structures of German energy producers to contextualise the effects and challenges introduced by the LKSG within a key sector. By bridging this research gap, this paper seeks to contribute to the evolving dynamics of global supply chain governance, sector-specific implications, and the role of statutory regulations in fostering corporate responsibility and transparency.

The situation involving the Wayúu community and the El Cerrejón mine serves as a compelling case study for testing the LKSG's impacts, given the persistent human rights violations and the involvement of German energy producers purchasing coal from this mine. Against this background, the research question is formulated as follows: How does the German Act on Corporate Due Diligence Obligations (Lieferkettensorgfaltspflichtengesetz, LKSG), through its mandated grievance mechanisms, influence corporate responsibility within the coal value chains of German energy producers sourcing from El Cerrejón, and what are its implications for social justice in La Guajira, Colombia?

1. Specifically: How is the value chain governed (private, public, and social governance), and what is the agency of the various actors?
2. Does the Act promote scale jumping through the mandated implementation of direct grievance mechanisms?
3. Who gains agency through the Act?

Methodologically, the paper thus aims to explore the trajectory of Colombian coal from the El Cerrejón mine to Germany, identifying the key German purchasers using value chain mapping, and delineating the processes involved in its procurement. This investigation demonstrates that deliberate obfuscation within value chains remains a major obstacle to corporate accountability, even under the regulatory framework of the LKSG. It further exposes the governance dynamics between German buyers and El Cerrejón (and, by extension, Glencore), offering insights into their respective bargaining power, particularly in relation to the imposition of, and compliance with, codes of conduct. Moreover, the paper aims to comprehensively and accurately depict the complex dynamics at play in the context of the LKSG and the mandated grievance mechanisms through semi-structured expert interviews with relevant stakeholders, including a Wayúu defence representative. The findings shed light on the effectiveness of the complaints mechanisms and risk management systems mandated by the LKSG, revealing significant shortcomings. Combined with value chain mapping, it enables to see the full picture: the macro-scale political-economic drivers, the meso-scale corporate network and governance configuration, and the micro-scale experiences and strategies of affected communities. Each element informs the others.

The structure of this paper is as follows: Chapter one sets the context by providing a comprehensive background on the case study, focusing on El Cerrejón and its interactions with the Wayúu community and the Colombian state, and the LKSG and how it came about. Chapter two establishes the theoretical framework by integrating insights from the GVC framework and the concept of *scale jumping* within Political Ecology. Chapter three details the methodological approach and design, encompassing a combination of value chain mapping, expert interviews, and the analysis of documents such as company financial and sustainability reports, and specific LKSG-mandated reports. These methods collectively underpin the comprehensive exploration and analysis, providing an internally robust approach to examining the complexities around accountability in global supply chains. In the fourth chapter, the results of the investigation into the German coal buyers, including value chain mapping, governance structures encompassing private, social, and public governance, the normalising processes specific to private governance, and the agency of various actors, are presented. What is more, this chapter delves into the functionality and effectiveness of the complaint mechanisms of the German firms. Based on expert interviews conducted in La Guajira, Colombia, and supplemented by secondary data, this chapter assesses how these mechanisms operate and proposes targeted recommendations for enhancing their efficacy. Additionally, this chapter will directly address and answer the research question guiding this study by evaluating the impact of the LKSG's mandated mechanisms on the agency of the different actors. Finally, the conclusion synthesises the study's findings, discussing the significant insights and implications for policy and practice. This chapter also proposes directions for future research, aiming to further explore the impacts of the LKSG and contribute to the ongoing discourse on improving corporate responsibility in global supply chains.

CASE BACKGROUND

To better set the broader context, this section provides a deeper historical recollection of the case briefly introduced earlier. It starts with a history of the mine and the socio-environmental conflict around it, followed by a recollection of the background of the LKSG and foregoing voluntary CSR.

El Cerrejón

El Cerrejón is the largest open-pit coal mine in Latin America, located in the semi-desertic Guajira Peninsula of northern Colombia, home to the country's largest indigenous group, the Wayúu (Censat Agua Viva, 2023, p. 10). The mining complex spans approximately 69 km², roughly the size of metropolitan Paris (Censat Agua Viva, 2023, p. 10)(Gilbert et al., 2021, p. 435). The mine's infrastructure includes a private 150-km railway line connecting the pit to the company's own maritime port, Puerto Bolívar, on the Caribbean coast (Mining Technology, 2011, para. 3). Huge trainloads of coal (about 8,500 tonnes each in 120-car trains) run daily to the port, where Cerrejón operates large ship-loading facilities for export (Cerrejón, 2020, para. "Operations"). The integrated operation of the mine, railroad, and port was built with an initial total investment of around $3 billion (Both ENDS & CENSAT, 2010, p. 4). The mine produces around 30 – 32 million tonnes of thermal coal per year and has been an important source of royalties and revenue for Colombia's government (Glencore, 2023, p. 8). In 2023, Glencore's total coal production reached 102.3 million tonnes, reflecting a 4% increase compared to 2022, partially driven by higher production volumes at Cerrejón following the full acquisition of ownership by Glencore (Glencore, 2023, p. 8).

El Cerrejón has undergone significant changes in ownership since its inception. Originally developed in the 1980s through a partnership between the Colombian state-owned company Carbocol and Intercor, a subsidiary of ExxonMobil, the mine later attracted interest from major global mining companies (Gilbert et al., 2021, p. 436). As part of Colombia's neoliberal reforms, the government privatised its stake in the mine in late 2000, selling its 50% share to a consortium of multinationals (subsidiaries of BHP Billiton, Anglo American, and Glencore) (Both ENDS & CENSAT, 2010, p. 4). By the early 2000s, mine ownership shifted to a consortium of three major international mining companies, namely BHP Billiton, Anglo American, and Glencore, each holding an equal one-third share (BHP Billiton, 2002, para. 2). This ownership structure allowed for the mine's expansion, turning it into one of the most significant coal operations globally (Glencore, 2022a, p. 40). However, massive infractions on the rights of the adjacent Wayuu communities and environmental harm accompanied this expansion (Censat Agua Viva, 2023, p. 11).

In 2021, substantial changes occurred again in the ownership structure. BHP Billiton and Anglo American decided to exit El Cerrejón due to declining demand for thermal coal, to invest in commodities with a higher growth potential, such as copper and nickel (Glencore, 2022a, p. 41). With the demand for clean energy increasing, especially in countries of the global North, copper and nickel, two vital components of clean energy technology, have become progressively important, forming a major economic opportunity. To note here is that soon after the two former business partners of Glencore withdrew from the consortium, Russia's invasion of Ukraine in February 2022 led to a skyrocketing demand for Colombian coal, especially in Germany (Glencore, 2023b, p. 8).

This demand, however, could, at first, not be followed in Cerrejón's coal production, which dropped by 3% from 2021 to 2022 (from 23% to 20%) due to "heavy rains in the June to November period and community blockades impacting operations in early September, with ramp-up challenges thereafter" (Glencore, 2022a, p. 87). Notwithstanding, the persisting coal boom is reflected in Glencore's 2023 coal production statistics sheet, revealing that production by El Cerrejón has caught up, increasing by 12% (from 19,7 mt to 22mt) from 2022 to 2023 (Glencore, 2023b, p. 8). Moreover, this growth occurred despite being curbed by "heavy rains and extended blockades in the base period" (Glencore, 2923b, p. 8). Nonetheless, the composition of global demand is changing, with European demand gradually decreasing again due to an overall shift toward greener energy mixes, away from fossil fuels.

As a result of its partners leaving, Glencore acquired the remaining shares from BHP Billiton and Anglo American, becoming the sole owner in January 2022 (Glencore, 2022b, para. 1). As the sole owner, Glencore now holds full responsibility for the mine's environmental and social impacts, including human rights violations (Censat Agua Viva, 2023, p. 12). Glencore has stated that it intends to manage the mine until its planned closure in 2034 (Glencore, 2022b, para. 3).

The Wayúu

The Wayúu, numbering around 150,000 in La Guajira, have seen the Cerrejón project as a double-edged sword. On the one hand, the Colombian state touts it as a driver of development and energy exports; on the other, it poses an existential threat to Wayúu communities' land, health, and culture. Scholars have characterised the mine as a "relational space" linking the multinational company, the state, and the Wayúu – a space of asymmetric power interplay where the government's development vision and corporate interests collide with indigenous survival strategies (Puerta Silva, 2010, pp. 150–152)(Ullola, 2020). In this relational arena, the Wayúu have employed both instrumental and symbolic forms of negotiation to assert their rights and preserve their socio-ethnic identity as a people. At the same time, the company has deployed various mechanisms to secure local acceptance of mining, and the state has sought to exercise sovereignty and implement its development plans in the region (Puerta Silva, 2010, p. 151). This dynamic backdrop has set the stage for decades of contestation surrounding El Cerrejón.

The Wayúu traditionally lived in small, dispersed communities, relying on agriculture, livestock, and natural resources (Gilbert et al., 2021, p. 435). They were semi-nomadic, moving within the region in response to seasonal changes and resource availability, particularly water. Their society is matrilineal, with family clans (or "eirruku") playing a central role, emphasising autonomy and cultural preservation (Wájaro Foundation, 2021, para. 4). Historically, they have governed themselves according to their own customs and laws, emphasising autonomy and preserving their cultural traditions (Gilbert et al., 2021, p. 436)(Ulloa, 2020). However, mining operations have caused widespread deforestation, water contamination, and significant air pollution due to coal dust and mining emissions (Gilbert et al., 2021, p. 437)(Ulloa, 2020). Local ecosystems, including rivers and forests crucial for community livelihoods, have been severely damaged (Censat Agua Viva, 2023, p. 13)(Ulloa, 2020).

Impact of El Cerrejón on the Wayúu

The development of El Cerrejón has exacted steep social costs on the Wayúu and other local communities. Initially, the transformation of the public, native land of the Wayúu throughout the seventies and eighties into private property granted to foreign corporations, including El Cerrejón, and, by extension, Glencore, led to the land's and communities' fragmentation (Censat Agua Viva, 2023)(Ulloa, 2020). Over the past four decades, dozens of families have been uprooted from their ancestral lands. A 2023 report by Censat Agua Viva states that over 25 communities were displaced through dispossession tactics like "sham negotiations, irregular land purchases, the threat of expropriation for public utility, and direct expropriation" (Censat Agua Viva, 2023, p. 13). Thus, while in some cases El Cerrejón's operators negotiated land purchases and relocation plans with communities, in others, removals have been marked by coercion and human rights violations.

Compared to other mining projects in Colombia, Cerrejón's acquisitions appeared relatively formalised, relying on legal titles and negotiated sales (Velasco, 2014, p. 290). This formality, however, reflected not a more benign approach but the institutional constraints faced by its multinational owners, who were subject to corporate governance standards, shareholder oversight, and scrutiny from international buyers. In this context, the company developed a Resettlement Action Plan in line with World Bank IFC Performance Standards, promising housing, jobs, and social programs (Velasco, 2014, p. 305). Yet, these frameworks did not prevent dispossession; rather, they provided a legal and technical vocabulary that legitimised it. By embedding displacement in the language of compliance and development, Cerrejón and its owners converted practices of expropriation into a process appearing orderly, responsible, and aligned with international norms. This dynamic illustrated how multinational corporations deployed governance standards not to avoid social harm but to insulate themselves politically and legally from accountability.

The impacts on local people have been severe, with community members reporting loss of livelihoods and cultural identity, inadequate compensation, and breakdown of social fabric following relocations (Gilbert et al., 2021, p. 436). For example, the village of Roche entered into a protracted relocation process where, initially, about 17 families agreed to resettle to a new site. Still, eight families refused, arguing that the compensation packages (cash, new land, and livelihood projects) were grossly insufficient for the scale of their losses (Velasco, 2014, p. 308). These holdout families noted cases where a household that had occupied over 50 hectares would receive only one hectare at the relocation site, or cattle ranchers with hundreds of animals were offered impractical alternatives to their way of life. When negotiations reached an impasse around 2009, the dissenting Wayúu families of Roche, joined by neighbours from

Chancleta, launched social protests to resist displacement – including high-profile blockades of the mine's railway line used to transport coal. Such acts of resistance underscored the community's desperation to be heard.

Although the majority of residents eventually moved to the new settlement in 2012, some communities ended up being forcibly evicted with the aid of riot brigades and heavy machinery, leaving deep grievances (Gilbert et al., 2021, p. 436)(Censat Agua Viva, 2023). Similar patterns have occurred in other settlements, and NGOs have documented instances of forced evictions and intimidation. Even where violence was not overt, the power imbalance in negotiations meant communities often felt compelled to accept subpar deals (Velasco, 2014, p. 308). This legacy of displacement has threatened the Wayúu's ability to transmit their culture and sustain their traditional economy, raising serious concerns about cultural survival and indigenous self-determination (Zuleta & Correa, 2021, p. 1790).

The Wayúu were also deprived of their livelihood by restricting their movement as their semi-nomadic paths became obstructed by private mining property and infrastructure, which became no-trespassing zones for the communities. They could no longer access hospitals, schools, etc., and lost their ability to sustain themselves (Gilbert et al., 2021, p. 437). This also interfered with the Wayúu way of life, which was traditionally semi-nomadic, based on seasonal changes and resource availability, particularly water.

Depletion of water resources

El Cerrejón's operations have profoundly affected the environmental rights of the Wayúu, a people already living in a fragile ecosystem, where water scarcity is a central flashpoint. The Wayúu have suffered acute water shortages in part because Cerrejón diverts and utilises enormous quantities of water for mining processes. By some estimates, the mine consumes around 30 million litres of water per day, roughly 40% of the available water in the local area (Censat Agua Viva, 2023, p. 16)(Ulloa, 2020). In the case of existing water concessions, the water was drained at rates surpassing (contractually) permitted levels (Censat Agua Viva, 2023, pp. 16–17). This is in a region that frequently experiences droughts – a situation so dire that it has contributed to a humanitarian crisis.

In the past, when resource scarcity was incurred in one place, they could move to where these had been replenished, and so on, in a perpetual pendular motion. Now that the paths are restricted, their access to resources is as well, and they are left dependent on the supply of necessities from the outside, including from El Cerrejón (Ulloa, 2020). For instance, as stated on the mine's website, the train transporting coal from the mine to the port also carries water for the adjacent communities in need (El Cerrejón, 2023). What is more, the company also provides water trucks that continuously cross the desert region to sell their water to the communities, epitomising the absurd situation exacerbated by the company (field visit by the author, 2024). The author's visit to one community also entailed the delivery of water and other essentials.

Local health authorities and advocacy groups have linked water depletion and contamination to malnutrition and child illness in Wayúu communities (Censat Agua Viva, 2023, pp. 16–17)(Zuleta & Correa, 2021, pp. 1779–1780). In a dramatic illustration, Colombia's President Gustavo Petro, in 2023, publicly blamed the mining operations in La Guajira for the deaths of "thousands of children" of the Wayúu due to thirst and hunger as water sources dry up (Zuleta & Correa, 2021, pp. 1779–1780)(Censat Agua Viva, 2023, p. 16). While Petro's statement is controversial, it underscores the perceived magnitude of harm among Colombian leadership and the public.

Beyond health, the mine has transformed the landscape, cratering the earth, displacing flora and fauna, and generating enormous piles of waste rock (Censat Agua Viva, 2023, pp. 16–17)(Zuleta & Correa, 2021, p. 1779). For the Wayúu, who maintain a spiritual and cultural connection to their land, this environmental degradation represents not just physical damage but also an assault on their cosmovision and heritage (CAFOD, 2023; Mongabay, 2018)(Ulloa, 2020). In 2020, a United Nations Special Rapporteur for human rights and the environment, after visiting the region, urged a halt to Cerrejón's mining activities, citing the "endemic" water shortages and pollution as incompatible with the State's duty to protect the Wayúu's rights (United Nations, 2020)(Deutscher Bundestag, 2023, pp. 3–4)(Zuleta & Correa, 2021, pp. 1779–1780). Thus, the environmental dimension of the Cerrejón conflict is inseparable from the human rights dimension – the two reinforce one another in what the Wayúu call "La Lucha" (the struggle) for their land and life (Ulloa, 2020).

Legal and Social Struggles

The Wayúu people have actively resisted the expansion of El Cerrejón for decades (Censat Agua Viva, 2023, p. 15). Their struggle has taken various forms, including protests, legal battles, and appeals to national and international organisations (Gilbert et al., 2021, p. 438). One of the most significant aspects of their resistance has been their fight for the recognition of their rights to land, water, and a healthy environment. Throughout the 1990s and 2000s, the Wayúu and other affected communities began organising more formally to resist the mine's encroachment (Gilbert et al., 2021, p. 438). They formed alliances with Colombian and international NGOs, environmental activists, and human rights organisations to raise awareness about their plight (ABColombia, 2023, para. 2)(Ulloa, 2020). Colombian and international NGOs (such as Indepaz and CINEP) have issued reports documenting abuses, detailing violations of rights, and highlighting non-compliance with international guidelines by companies involved with Cerrejón (Indepaz, 2023)(CINEP, 2023)(ABColombia, 2022). What is more, in 2015, representatives petitioned the Inter-American Commission on Human Rights (IACHR), seeking precautionary measures to protect Wayúu children from malnutrition and thirst linked to mining (Human Rights Watch, 2020; IWGIA, 2020). This activism led to several legal victories, including court rulings that have ordered El Cerrejón to halt certain operations, return the land to displaced communities, and take measures to reduce environmental damage.

For instance, in 2017, the Court handed down a landmark ruling (Sentence SU-698/17) suspending Cerrejón's planned diversion of the Arroyo Bruno, a vital stream feeding the Ranchería River, until a thorough assessment of impacts on the ecosystem and Wayúu livelihoods was conducted (Corte Constitucional, 2017, pp. 2–3)(Censat Agua Viva, 2023, p. 17). The Arroyo Bruno case became emblematic as the stream provides water for some 40,000 people, and its diversion for coal mining was seen as life-threatening to Wayúu villages Notwithstanding, the company has gone against the ruling by continuing operations (Corte Constitucional, 2017, pp. 2–3)(Censat Agua Viva, 2023, p. 17) (Bundestag WD, 2023, p. 14).

In a subsequent instance in December 2019, the Constitutional Court found that pollution from Cerrejón was violating fundamental rights. The Court concluded that the mine's air particulate emissions, noise from blasting, and water contamination were causing serious health problems for those living downwind and downstream (particularly Indigenous children and the elderly). It ordered both the company and government agencies to implement plans to reduce these impacts and improve local air and water quality (Corte Constitucional, 2019, pp. 4–5)(Censat Agua Viva, 2023, pp. 16–17)(Deutscher Bundestag, 2023, p. 3). This judgment affirmed what local Wayúu had long contended: that Cerrejón's activities were incompatible with their rights to health, a healthy environment, and even life. To date, community members report pervasive respiratory illnesses, eye irritation, and skin problems that they attribute to coal dust and blast vibrations from the mine. Independent studies have indeed found elevated levels of particulate matter and heavy metals in the vicinity of the mine, correlating with the mine's operations (Avilés, 2019, pp. 1750–1752)(Fuentes et al., 2019).

However, despite these seeming victories in court, the implementation of court orders has often been slow, and the Wayúu continue to face significant challenges (Gilbert et al., 2021, p. 439). The company has also been accused of using tactics such as offering inadequate compensation, dividing communities, and engaging in prolonged legal disputes to delay compliance with rulings (Censat Agua Viva, 2023). Additionally, the Wayúu have faced threats and violence, which are part of a broader pattern of violence against social leaders and Indigenous activists in Colombia (ABColombia, 2023, para. 4).

To date, El Cerrejón continues to violate people's rights, all the more disregarding the impacts on people and the environment, to the extent of using international arbitration lawfare as a means of pressuring the Colombian government into allowing the abuse to endure (Censat Agua Viva, 2023, p. 19). Moreover, through multiple CSR initiatives on the producer and buyer side, Glencore and coal buyers up the value chain attempt to 'wash' their operations' reputation, legitimising their affairs (Gilbert et al., 2021, p. 440).

The aforementioned 2017 ruling by the Constitutional Court of Colombia, for instance, is now being weaponised in international investment arbitration by Glencore (Corte Constitucional, 2019, pp. 1-2). The mining giant has leveraged this ruling to initiate an arbitration case, aiming to pressure Colombia into reversing the court's decision (ABColombia, 2023, para. 5)(UNCTAD, 2023). This order prevented the firm from diverting the Arroyo Bruno and excavating the coal underneath it. The project, however, was not to be stopped per se, depending on the results of a mandated environmental and social assessment involving all project stakeholders (Corte Constitucional, 2019, p. 6). With this assessment now completed, the mine has resumed its operations on the Arroyo Bruno, albeit not at full scale. Civil society has highly criticised the result of the assessment (ABColombia, 2023, para. 6).

For instance, ABColombia has accused Carbones del Cerrejón and governmental representatives of colluding behind closed meetings separate from the official roundtables (ABColombia, 2023, para. 7). The roundtables were ordered to promote an open dialogue with representatives of affected communities and to develop solutions collectively, considering all parties' requirements. Both the government and the mine allegedly used the official roundtable meetings to demonstrate that the process was conducted correctly, thereby legitimising its conclusion and the subsequent re-engagement in the Arroyo Bruno project (ABColombia, 2023, para. 8).

Colombia's Legal and Governance Framework

Colombia's 1991 Constitution recognised the collective rights of indigenous peoples, including special cultural protection and the right to prior consultation (consulta previa) for projects affecting their territories (Zuleta & Correa, 2021, pp. 822–830). In 1997, Colombia ratified ILO Convention 169, obligating the state to consult indigenous communities before approving resource projects on their lands. However, in practice, these consultations often fall short of genuine consent. The legal framework does not grant Indigenous communities an absolute veto over extraction projects – if no agreement is reached, the State may still authorise the project so long as it is not arbitrary or abusive (Zuleta & Correa, 2021, p. 860). This means Wayúu objections can ultimately be overruled by the government in the name of national interest. Indeed, Colombian mining law deems mining a public utility and of social interest, which allows the expropriation of private property for mining purposes with compensation (Wissenschaftliche Dienste des Bundestages, 2023, p. 9).

International Attention and Corporate Responses

In response to the growing scrutiny, El Cerrejón has implemented various corporate social responsibility (CSR) initiatives, including local infrastructure, education, and healthcare investments. However, critics argue that these efforts are often insufficient and do not address the root causes of the conflict, particularly the issues of land displacement, environmental degradation, and water (Rodríguez et al., 2020, p. 10). It touts its adherence to high industry standards, for instance, claiming the company follows United Nations Guiding Principles on Business and Human Rights and other international norms in its policies (Deutscher Bundestag, 2023, p. 4). Glencore asserts it operates Cerrejón consistently with its corporate sustainability framework, which ostensibly aligns with UN standards for environmental protection and labour rights (Deutscher Bundestag, 2023, p. 4). However, these CSR assurances often ring hollow to critics on the ground. German parliamentarians, for example, have questioned how Glencore's claims square with "the numerous documented violations of those very standards" in Cerrejón's operations (Deutscher Bundestag, 2023, p. 4).

Indeed, the persistent reports of water depletion, pollution, and health crises suggest a disconnect between corporate policies on paper and realities on site. One chronic issue has been the gap between company promises and implementation; communities often hear pledges of new schools, water projects, or jobs as part of mitigation plans, but the delivery can be slow or incomplete, exacerbating distrust (Zuleta & Correa, 2021, p. 1765). Economically, El Cerrejón's presence has yielded surprisingly limited benefits for the local population. The mine provides around 5,000 – 6,000 direct jobs, less than 1% of employment in La Guajira (many skilled positions are filled by outsiders), and local poverty rates remain stubbornly high, with over 50% of the local population living below the poverty line, a figure virtually unchanged despite four decades of mining in the region (Deutscher Bundestag, 2023, p. 4). These outcomes feed a narrative among locals that "the coal only enriches outsiders" (Informant 1, 2024). On the other hand, El Cerrejón and government supporters argue that the mine contributes significantly to Colombia's royalties and tax revenues, and that it has brought roads, electricity, and clinics to a historically neglected area.

While some development has occurred, it is clear that the costs of extraction have been borne primarily by the Wayúu and neighbouring communities, whereas the profits flow to central coffers and multinational shareholders. This imbalance in mining governance reflects the broader challenge in Colombia and beyond of ensuring that the extraction of natural resources does not trample the rights and livelihoods of indigenous populations. Analysts have called for stronger oversight and genuine community participation in decision-making. Some improvements in El Cerrejón's practices over time (such as more robust environmental monitoring and the resettlement protocols developed in the 2000s) can be attributed to sustained advocacy and the mine's exposure to international scrutiny (Velasco, 2014, pp. 292–295). Nevertheless, the case lays bare the limitations of voluntary corporate responsibility. As long as enforcement of standards is weak, companies will fail to internalise the full socio-environmental costs of their operations.

Recent Developments

In recent years, the situation has become even more urgent as climate change exacerbates the already harsh environmental conditions in La Guajira. The Wayúu people are increasingly vulnerable to droughts and water shortages, problems made worse by the mine's water consumption and contamination (Siddique, 2018, p. 45).

During the interview with Informant 1, a representative of the Wayúu community, documented evidence of ongoing rights violations by El Cerrejón was presented in the form of a formal complaint submitted directly to the company. However, the informant did not grant permission to disclose the specific contents of the document, citing concerns over traceability and potential repercussions. Nevertheless, it is essential to note that the general issues highlighted include environmental degradation (soil alteration, water contamination and excessive consumption), displacement without fair compensation, economic exploitation, cultural erosion, and restricted access to essential services, which constitute particularly protected rights under the LKSG (2021), notably under positions (9) and (10), Par. 2. All of these occurred in 2023, demonstrating that the violations have not ceased and are relevant under the LKSG.

Implementing the LKSG in Germany has added a new dimension to the conflict, as German companies are now legally required to ensure that their supply chains do not contribute to human rights abuses. This has created both an opportunity and a challenge for the Wayúu, opening pathways to leverage international frameworks to seek justice and accountability (Federal Ministry for Economic Cooperation and Development, 2021, p. 2).

Germany's road to the LKSG

Two international frameworks played a significant role in shaping the debate in Germany over corporate responsibility in supply chains. First, the United Nations Guiding Principles on Business and Human Rights (UNGPBs) (2011). These principles set out the responsibility of businesses to respect human rights and the state's duty to protect against human rights abuses linked to business activities (United Nations, 2011, p. 13). They emphasised the importance of corporate due diligence in identifying, preventing, and mitigating human rights risks in global supply chains. Second, the OECD Guidelines for Multinational Enterprises (OECD, 2011, p. 31). These guidelines were revised to include recommendations on responsible business conduct, including the need for companies to exercise due diligence in preventing and addressing adverse human rights and environmental impacts. While Germany, like many other countries, initially promoted voluntary compliance with these frameworks, pressure grew to introduce binding legislation as voluntary approaches were proven insufficient to address systemic human rights abuses in global value chains (Federal Foreign Office, 2020, p. 15).

The German Federal Ministry for Economic Cooperation and Development (BMZ), along with the Federal Ministry of Labor and Social Affairs (BMAS) and the Federal Foreign Office, were central in the development of Germany's National Action Plan on Business and Human Rights (NAP) and later in advocating for the Supply Chain Due Diligence Act (LKSG) (BMZ, 2019, para. 4). The Ministry had long been a proponent of integrating human rights into business practices and global supply chains, particularly in the context of development policy and sustainable economic practices (BMZ, 2019, para. 5). It also launched several voluntary participation initiatives to promote responsible and sustainable supply chains, many of which complemented the goals of the NAP and the LKSG.

One such initiative was the Green Button (Grüner Knopf) by the BMZ in 2019. It is a government-backed sustainability label for textiles that certifies products meeting specific environmental and social standards. The label is meant to help consumers identify goods produced in ethical and environmentally friendly ways, aligning with the ministry's broader push for corporate accountability in global supply chains (BMZ, 2019, para. 6). It also supported efforts to promote fair trade, ethical sourcing, and responsible business conduct in agriculture, textiles, and mining industries. These efforts were designed to improve working conditions, reduce environmental harm, and ensure that companies in developing countries could compete in a fair and sustainable global market (BMZ, 2019, para. 7).

In the years leading up to the LKSG, alongside the aforementioned developments between 2018 and 2020, the German government also commissioned a monitoring study on voluntary CSR mechanisms. This was part of the evaluation process for the NAP, launched in 2016, which initially encouraged voluntary human rights due diligence by German companies aligned with the UNGPBs and OECD Guidelines (Federal Foreign Office, 2020, pp. 22-23). The NAP set out the expectation that 50% of large German companies (with over 500 employees) would voluntarily implement human rights due diligence processes by 2020 (Federal Foreign Office, 2020, p. 25). These voluntary measures included identifying human rights risks in supply chains, preventing and mitigating adverse impacts related to human rights violations, and reporting on the measures taken to address these risks.

The key findings were disillusioning, showing inconsistent implementation, limited enforcement, insufficient coverage, and a lack of accountability. Put simply, the voluntary CSR mechanisms were largely ineffective in achieving the desired level of corporate compliance with human rights due diligence standards. Only 13% of companies were found to have implemented adequate human rights due diligence measures, falling far short of the 50% target set by the NAP (Federal Foreign Office, 2020, p. 27). Most companies either had no due diligence measures at all or relied on superficial, non-binding commitments. Similarly, a 2019 assessment by the Business & Human Rights Resource Centre of Germany's 20 largest companies showed that 90% failed to demonstrate sufficient management of human rights risks. None fully met the basic expectations of the UN Guiding Principles, as only two firms scored on all due diligence indicators (Business & Human Rights Resource Centre, 2019, p. 3).

In response to these challenges, the German government took decisive steps towards mandatory regulation by intensifying subject debates and policy formulation. Policymakers engaged in extensive consultations with stakeholders to design a legislative framework that addressed the shortcomings of voluntary mechanisms (Gustafsson et al., 2022, pp. 902–903)(Schürmann, 2023, p. 34)(Altenschmidt & Helling, 2022, p. 1; Beile & Vitols, 2024, p. 25). Key players in this process included the Social Democrats (SPD) and Green Party, which pushed for legislation holding German companies accountable for human rights and environmental violations in their supply chains (Business & Human Rights Resource Centre, 2019, p. 4) (Initiative Lieferkettengesetz, 2020)(Gustafsson et al., 2022, p. 897)(Schürmann, 2023, p. 34). What is more, the BMZ, under the leadership of Gerd Müller, who served as the Federal Minister for Economic Cooperation and Development, became a vocal advocate for the creation of the Supply Chain Due Diligence Act (LKSG). Müller was one of the key figures pushing for mandatory corporate accountability measures, consistently arguing that voluntary frameworks were insufficient and that companies needed to be legally obligated to ensure that their products were not contributing to human rights violations (Gustafsson et al., 2022, pp. 902–903). He emphasised that sustainable development could only be achieved if businesses were held accountable for their actions across borders. As such, the ministry saw mandatory human rights due diligence not just as a regulatory tool but also as part of a broader development policy aimed at reducing inequality and fostering sustainable economic growth in the Global South (Schürmann, 2023, p. 34)(BMZ, 2019, para. 7).

Additionally, trade unions, particularly the German Trade Union Confederation (DGB), supported the introduction of mandatory due diligence requirements to protect workers' rights in Germany and abroad. Moreover, Civil Society Organisations, including NGOs such as Brot für die Welt, Misereor, and Oxfam, played a crucial role in advocating for such a law. Various civil society organisations, trade unions, and environmental groups launched the Initiative Lieferkettengesetz (German for "Supply Chain Law Initiative") to push for mandatory due diligence requirements (Initiative Lieferkettengesetz, 2020).

Notwithstanding, not all were entirely in favour of such intrusive regulation. Peter Altmaier, who served as Germany’s Federal Minister for Economic Affairs and Energy (BMWi) from 2018 to 2021, was concerned about its potential effect on German business performance. As a member of the Christian Democratic Union (CDU), he held a business-friendly stance during the negotiations, acting as a counterbalance to the aforementioned actors and proponents, particularly the Federal Ministry for Labour and Social Affairs (BMAS) and the Federal Ministry for Economic Cooperation and Development (BMZ). These ministries, led by Hubertus Heil (BMAS) and Gerd Müller (BMZ), were more focused on ensuring that the law had a substantial human rights and environmental component and were pushing for stricter regulations (Gustafsson et al., 2022, p. 903).

Altmaier was widely criticised for hesitating and resisting stricter due diligence requirements. His emphasis on protecting business interests led to significant delays in the legislative process, as he often pushed back against proposals that he viewed as too restrictive or burdensome for German companies (Küstner, 2021, para. 5)(Schilling-Vacaflor, 2023, p. 58)(Gustafsson et al., 2022, pp. 903–904). Altmaier’s stance was seen as closely aligned with industry lobby groups, such as the Federation of German Industries (BDI), and other corporate interests that were against binding regulations (Initiative Lieferkettengesetz, 2020)(Küstner, 2021, para. 6). Many accused him of over-prioritising economic concerns at the expense of human rights, arguing that he was more focused on minimising company costs than ensuring meaningful compliance with international human rights standards (Schilling-Vacaflor, 2023, p. 58). The prolonged negotiation process frustrated human rights advocates and other government officials, especially those from the BMZ and BMAS. It effectively caused the postponement of the implementation of human rights protections and environmental standards (Gustafsson et al., 2022, p. 904)(Küstner, 2021, para. 5).

Moreover, his negotiations led to compromises that weakened the law’s impact, such as limiting its scope to only the largest companies and reducing the obligations for smaller firms (Küstner, 2021, para. 10). These concessions were viewed as appeasing businesses rather than holding them accountable. An example of this is Altmaier’s insistence on including the principle of proportionality (Angemessenheit) and gradual implementation, which some critics argued effectively diluted the LKSG (Schilling-Vacaflor, 2023, p. 58). By advocating for a phased approach, initially applying the law only to companies with more than 3,000 employees, he was seen as prioritising business flexibility over urgent human rights and environmental needs (Küstner, 2021, para. 10). Moreover, activists and political opponents criticised Altmaier for ensuring that businesses had loopholes or escape clauses in the legislation, reducing the immediate pressure on companies to comply fully with the new due diligence standards (Schilling-Vacaflor, 2023, p. 58).

Many saw Altmaier's approach as insincere in supporting corporate responsibility measures. Instead of being proactive, he was often perceived as a roadblock to more robust regulations, preferring to stick to voluntary standards, which had already been proven insufficient by earlier evaluations (Gustafsson et al., 2022, p. 903)(Schürmann, 2023, p. 34). His reluctance to engage seriously with the demands of human rights organisations, trade unions, and civil society groups indicated that his priority remained to protect German economic interests (Schilling-Vacaflor, 2023, p. 58). Ultimately, his focus on minimising the LKSG's impact on German companies led to compromises, resulting in a less comprehensive law than it could have been (Küstner, 2021, para. 10)(Schilling-Vacaflor, 2023, p. 59).

Eventually, in March 2021, the Bundestag passed the Lieferkettensorgfaltspflichtengesetz (LKSG). The law was officially enacted on January 1, 2023, initially applying to companies with 3,000 employees and extending to those with 1,000 employees from January 1, 2024 (Küstner, 2021, para. 10)(Gustafsson et al., 2022, p. 904).

The LKSG introduced several mandatory requirements for companies that can be grouped into four categories:

1	**Human Rights and Environmental Due Diligence:** - Risk Analysis: Companies must conduct regular assessments to identify human rights and environmental risks within their supply chains. - Preventive Measures: Implement policies and practices to prevent or mitigate identified risks. - Remediation: Take appropriate action to remedy adverse impacts that have occurred.
2	**Reporting and Transparency:** - Annual Reporting: Companies are required to publish annual reports detailing their due diligence processes and outcomes. - Public Accessibility: Reports must be accessible to the public, ensuring transparency and accountability.

3	**Grievance Mechanisms:** - Internal Processes: Establish mechanisms for stakeholders, including workers and affected communities, to report grievances. - External Remedies: Facilitate access to legal and non-legal remedies for human rights and environmental abuse victims.
4	**Sanctions and Enforcement:** - Fines and Penalties: Companies that fail to comply with the LKSG may face substantial fines and other penalties. - Exclusion from Public Contracts: Non-compliant companies can be excluded from bidding for public contracts, providing a significant incentive for adherence.

Table 1 The LKSG'S four categories of mandatory requirements.

The following is a detailed breakdown of the law's most important sections.

Human Rights and Environmental Due Diligence Obligations

The LKSG establishes comprehensive human rights and environmental due diligence duties for large German companies, covering their own operations as well as their entire supply chain (both direct and indirect suppliers) (§ 3 (LKSG, para. 1-2). Companies must embed a risk management system into all relevant business processes to identify, prevent, and mitigate human rights or environment-related risks (§ 4 LKSG, para. 1-2). This includes assigning clear responsibility (e.g. appointing a human rights officer) and securing board-level oversight of due diligence efforts (§ 4 LKSG, para. 3). Firms are also required to conduct regular risk analyses (at least annually and on an ad hoc basis) to map human rights and environmental risks in their own operations and at direct (Tier-1) suppliers (§ 5 LKSG, para. 1-2). For indirect suppliers (tiers beyond the first), the law applies a “graduated responsibility” where companies must only carry out due diligence when they have substantiated knowledge (“actual indications”) of a possible human rights or environmental violation at those suppliers (§ 9 LkSG, para. 3). In such cases, the firm must promptly investigate and, if warranted, update its risk analysis, take preventive measures with the supplier, and develop a plan to remediate or minimise the violation (§ 7 LkSG, para. 1-3). Notably, the Act’s scope extends to all products and services and every step needed to produce them, inside and outside Germany. It explicitly prohibits attempts to circumvent these duties (e.g. structuring a supplier as “indirect” to avoid responsibility) (§ 3 LKSG, para. 1-2)(Mittwoch & Bremenkamp, 2023, p. 198).

Companies must evaluate risks using four statutory criteria, weighing all of them equally when determining the appropriate extent of due diligence (§ 3 LKSG, para. 2). Specifically, firms should consider (1) the nature and extent of their business activities, (2) their ability to influence the party causing the risk (e.g. leverage over a supplier), (3) the severity and likelihood of the potential violation (including its scale and irreversibility), and (4) the company's own contribution to the risk (i.e. whether it causes, contributes to, or is directly linked to the harm) (§ 3 LKSG, para. 2)(Kraft et al., 2024, p. 15). The Act requires balancing all these factors; in other words, even a lower-probability risk might demand action if it is severe, just as a company with high leverage over a supplier is expected to use it, even for moderate risks (§ 3 LkSG, para. 2)(Mittwoch & Bremenkamp, 2023, pp. 198-199). In carrying out risk management and prioritising risks, companies also have to consider stakeholder perspectives with the law mandating due regard to the interests of the company's employees, the workers at supplier facilities, and people in affected communities who hold "protected legal positions" (e.g. local residents' health or access to clean water) (§ 4 LKSG, para. 4). This stakeholder-oriented approach aligns with international frameworks on business and human rights and is meant to avoid risk that prioritisation done in isolation from those who may bear the impacts (Mittwoch & Bremenkamp, 2023, p. 199).

Once a company identifies salient risks, it is obligated to implement preventive measures without undue delay, both within its own operations and vis-à-vis business partners (§ 6 LKSG, para. 1-3). Internally, firms must integrate their human rights strategy into policies and procedures, adjust procurement and purchasing practices to mitigate risk (for example, avoiding buying practices that foster labour abuses), conduct training for relevant employees, and perform risk-based controls to monitor compliance (§ 6 LKSG, para. 2; Kraft et al., 2024, p. 15). Externally, concerning direct suppliers, preventive measures include incorporating human rights and environmental expectations into supplier selection and contracts, obtaining contractual assurances of compliance (and a commitment that the supplier will address these standards with its own subcontractors), providing training or support to suppliers, and establishing audit or monitoring rights to verify supplier compliance (§ 6 LKSG, para. 4). The Act also emphasises using industry initiatives or collaborative schemes as preventive tools – for instance, joining sector-wide programs or multi-stakeholder initiatives to improve labour conditions can be part of a company's risk prevention strategy (§ 6 LKSG, para. 4).

If violations do occur or are imminent, companies must take remedial (corrective) action to end the violation or minimise its extent (§ 7 LKSG, para. 1-2). In their own operations (especially within Germany), remediation generally must achieve the cessation of the abuse (§ 7 LKSG, para. 1). At the supply chain level, if a breach is found at a direct supplier that cannot be immediately resolved, the firm is required to develop and implement a concrete plan to mitigate and eventually stop the violation (§ 7 LKSG, para. 2). Possible remedial steps outlined in the law include working with the supplier on an improvement plan, cooperating in industry initiatives or standards to amplify leverage, temporarily suspending the business relationship while efforts at correction are underway, and, only as a last resort, terminating the relationship (§ 7 LKSG, para. 3)(Mittwoch & Bremenkamp, 2023, p. 202). The Act sets a high threshold for contract termination with only grave violations requiring a complete stop, that is, if the corrective plan fails to remedy the issue within the agreed timeframe, and no less severe measure is available to the company (taking into account its influence) (§ 7 LKSG, para. 3). In other words, the company must exhaust other means of remediation before cutting ties. Even then, it must first consider whether the host country's governance (e.g., non-ratification of certain conventions) is contributing to the situation (Kraft et al., 2024, p. 15). Throughout this process, companies are expected to continually monitor and adjust their prevention and mitigation measures, with the LKSG requiring annual reviews of the effectiveness of both preventive and remedial actions and updates to the company's strategy or measures as needed, especially if there are changes in the risk landscape (new products, new suppliers, etc.) (§ 6 LKSG, para. 5)(Mittwoch & Bremenkamp, 2023, p. 202).

What is more, the LKSG does not create new substantive standards. Rather, it builds on existing international human rights and environmental agreements (§ 2 LKSG, para. 1)(Mittwoch & Bremenkamp, 2023, p. 202), with the law's Annex enumerating the conventions and treaties that define the protected human rights and environmental obligations (§ 2 LKSG, Annex). On the human rights side, this includes core conventions (for example, prohibitions on child labour, forced labour, and occupational safety standards) (§ 2 LKSG, Annex). On the environmental side, the Act explicitly incorporates obligations from three key international environmental agreements: the Minamata Convention on Mercury, the Stockholm Convention on Persistent Organic Pollutants, and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (§ 2 LKSG, Annex). In practice, this means companies must ensure compliance with specific bans and restrictions derived from these treaties (such as the phase-out of mercury use in products and processes by applicable dates, the prohibition of listed toxic chemicals, and the ban on exporting hazardous waste to countries that have not consented) (Kraft et al., 2024, p. 16). Environmental risks are thus addressed in two ways under the LkSG: first, insofar as they lead to human rights harms (e.g. pollution causing health risks), and second, through these explicit treaty-based environmental duties that companies must uphold in their supply chains (§ 2 LkSG, Annex)(Mittwoch & Bremenkamp, 2023, pp. 203-204). While some scholars have criticised the law for a narrow approach to environmental protection (since it covers only those three treaties and environment-related harms that implicate human rights), the inclusion of international environmental standards is a notable expansion of due diligence into environmental issues (Mittwoch & Bremenkamp, 2023, p. 204). Companies are expected to treat serious environmental pollution or toxin exposure with the same diligence as human rights abuses, integrating environmental risk assessment into their overall risk management framework (§ 4 LKSG, para. 1)(Mittwoch & Bremenkamp, 2023, p. 204).

In summary, the LKSG's due diligence obligation requires companies to establish a robust risk management system, identify and prioritise risks based on clear criteria, and take appropriate preventive and remedial measures for both human rights and specific environmental issues (Mittwoch & Bremenkamp, 2023, pp. 198-199). These duties apply not only to the firm's own operations and direct suppliers on an ongoing basis but also – in a risk-responsive manner – to indirect suppliers if problems are brought to light (§ 5 LKSG, para. 3-4)(Kraft et al., 2024, p. 15). All criteria (business context, influence, severity/probability, and involvement) must be weighed in deciding how far to go in preventing or addressing risk, and stakeholders' interests must inform the company's risk priorities (§ 4 LKSG, para. 4)(Mittwoch & Bremenkamp, 2023, p. 199). The ultimate goal, as stated in the Act, is to prevent or minimise human rights abuses and environmental harm in global supply chains or to end them when they occur (§ 1 LKSG) (Mittwoch & Bremenkamp, 2023, p. 197). However, the law stops short of making companies guarantors of outcomes as it requires "efforts" (Bemühen) appropriate to the company's context rather than absolute success and does not explicitly create new civil liability for failure to prevent abuse (Mittwoch & Bremenkamp, 2023, p. 199). The emphasis is on systematic due diligence processes and continuous improvement grounded in internationally recognised standards (Kraft et al., 2024, p. 15).

Reporting and Transparency

Transparency is intended to be a core part of the LKSG's regime. Companies must document their due diligence activities on an ongoing basis and publish an annual report detailing their compliance with the law (§ 10 LKSG, para. 2-3). The Act requires that by four months after the end of each financial year, the company prepare a Due Diligence Report and post it on its website, free of charge, for at least seven years (§ 10 LKSG, para. 2-3). This report must be written in German and also submitted to the oversight authority, the Federal Office for Economic Affairs and Export Control (BAFA) for review (§ 10 LKSG, para. 3). In terms of content, the report needs to cover all key aspects of the company's due diligence, stating what human rights and environmental risks were identified during the year and whether any actual violations occurred (§ 10 LKSG, para. 2-3). It must also describe the measures the company took to fulfil its due diligence obligations, essentially outlining the steps taken under each of the LKSG's pillars (risk analysis, prevention, remediation, etc.) and including how the company responded to any issues raised through its grievance mechanisms (§ 10 LKSG, para. 2-3)(Kraft et al., 2024, p. 15). Additionally, firms have to evaluate the effectiveness and outcomes of their measures in the report, explaining how well their actions mitigated risks or improved conditions and what lessons or forward-looking conclusions they draw for the future

(§ 10 LKSG, para. 2-3)(Mittwoch & Bremenkamp, 2023, p. 206). If a company claims it found no significant risks and no violations, it must substantiate that conclusion in the report; if it does so convincingly, it can omit some of the detailed sections on responses and outcomes (§ 10 LKSG, para. 2)(Kraft et al., 2024, p. 15). All reports are subject to audit by authorities, and false statements or omissions can result in penalties (§ 24 LKSG, paras. 1-2) (Mittwoch & Bremenkamp, 2023, p. 206).

This reporting mandate is intended to promote public transparency and accountability for companies' supply chain practices (Mittwoch & Bremenkamp, 2023, p. 206). In effect, the annual reports are meant to allow consumers, investors, civil society, and regulators to scrutinise whether a company is making sufficient efforts under the law (Mittwoch & Bremenkamp, 2023, pp. 206-207). The law also includes provisions to protect sensitive information in this context, as trade secrets do not have to be disclosed, as long as the company can still provide a meaningful report (§ 10 LKSG, para. 3)(Mittwoch & Bremenkamp, 2023, p. 207).

The German law's approach to public reporting has also influenced proposals at the European Union level, which similarly call for corporate due diligence statements to ensure transparency (European Commission, 2022). By embedding a reporting obligation, the LKSG not only enforces compliance through the threat of sanctions but also through reputational exposure: a poorly done report (or failure to address known risks) can invite public criticism or legal action by NGOs (§ 10 LKSG, para. 2-3)(Mittwoch & Bremenkamp, 2023, p. 207). Early analyses suggest that many companies have been developing detailed reporting frameworks to meet the LKSG's requirements, covering risk findings and the status of implementation of their risk mitigation plans (Kraft et al., 2024, p. 15). Overall, reporting under the LKSG serves as the transparency and accountability mechanism: it documents that the company has "properly applied due diligence" and thus offers evidence of compliance (or non-compliance) with each of the law's due diligence components (§ 10 LKSG, para. 2-3)(Mittwoch & Bremenkamp, 2023, p. 207).

Grievance Mechanisms

A cornerstone of the LKSG is the requirement for companies to establish an effective grievance mechanism (Beschwerdeverfahren) for people to report human rights or environmental concerns in the supply chain (§ 8 LKSG, para. 1)(Mittwoch & Bremenkamp, 2023, p. 208). Section 8 of the Act obliges companies to provide an internal complaints procedure that is accessible to all individuals along the supply chain, including workers of suppliers and local community members who may be affected (§ 8 LKSG, para. 2)(Kraft et al., 2024, p. 16). This means, for example, that a factory worker at an overseas supplier or a villager living near a mining site supplying the company must have a channel through which they can safely lodge a complaint about rights abuses or pollution (§ 8 LKSG, para. 2)(Mittwoch & Bremenkamp, 2023, p. 208). The law stipulates that the mechanism must be adequately publicised, easy to access, and free of barriers (§ 8 LKSG, para. 3). It also sets quality criteria: the process should guarantee impartiality (the personnel handling complaints should be independent and unbiased) and confidentiality, protecting whistleblowers' identities and shielding them from retaliation (§ 8 LKSG, para. 3)(Kraft et al., 2024, p. 16). Companies can either set up their own hotline/ombudsperson system or participate in an external, shared grievance mechanism, as long as it meets the LKSG's requirements for accessibility and effectiveness (§ 8 LKSG, para. 1-3).

The grievance mechanism is not merely a formality and plays a critical role in the risk management cycle envisioned by the law (Mittwoch & Bremenkamp, 2023, p. 209). Information from complaints must be integrated into a company's risk analysis and response processes (§ 8 LKSG, para. 3). In fact, the Act requires that findings from the complaints procedure are taken into account during regular and ad hoc risk analyses (meaning a substantiated complaint can trigger a fresh risk assessment or targeted measures) (§ 8 LKSG, para. 3)(Mittwoch & Bremenkamp, 2023, pp. 209-210). Furthermore, companies need to acknowledge the receipt of complaints, dialogue with the complainant to clarify facts, and offer mediation if appropriate (§ 8 LKSG, para. 3) (Kraft et al., 2024, p. 16). The effectiveness of the complaints process itself must be reviewed at least annually, and is to be updated immediately if there are changes in the risk profile (for instance, if new operations or suppliers introduce new risks, or if the nature of complaints indicates a systemic issue) (§ 8 LKSG, para. 3)(Mittwoch & Bremenkamp, 2023, p. 210). Under Section 9(1) of the LKSG, the grievance channel must also accommodate complaints and grievances relating to indirect suppliers, ensuring that even deep-tier issues (which the company might not be proactively monitoring) can surface through this mechanism (§ 9 LKSG, para. 1)(Kraft et al., 2024, p. 16).

In essence, the LKSG-mandated grievance mechanism operationalises the "remedy" pillar of the United Nations Guiding Principles on Business and Human Rights by providing potentially affected people a way to be heard and to seek remediation (§ 8 LKSG, para. 1-3)(Mittwoch & Bremenkamp, 2023, p. 214). A compliant grievance process under the Act would, for example, allow a community impacted by a supplier's illegal waste dumping to alert the German company, which in turn would be obliged to investigate and address the issue (§ 7 LKSG, para. 2-3)(Kraft et al., 2024, p. 16). The law also implicitly encourages companies to handle complaints seriously: if a company ignores credible complaints, it risks regulatory action for failing to conduct an appropriate risk analysis or to take required remedial measures (§ 24 LKSG, para. 1-2)(Mittwoch & Bremenkamp, 2023, p. 214). Moreover, by requiring transparency about measures taken in response to complaints (companies must describe in their annual report how they addressed issues raised via the complaints procedure), the Act attempts to ensure that grievance mechanisms lead to concrete accountability (Kraft et al., 2024, p. 16).

It aligns with best practices that call for early-warning systems and worker-driven monitoring as part of human rights due diligence. Many companies already publicise contact points or whistleblowing systems on their websites and communicate these to suppliers (Mittwoch & Bremenkamp, 2023, p. 214). The ultimate test will be whether these mechanisms are used and able to resolve issues on the ground, with the law stipulating that if a grievance reveals a looming violation at an indirect supplier, the company must promptly investigate and initiate appropriate preventive or corrective measures, as discussed above (§ 9 LKSG, para. 3). Again, the grievance process directly feeds into fulfilling the company's due diligence obligations.

Sanctions and Enforcement

The German LKSG is enforced through public law mechanisms – administrative oversight and sanctions – rather than through new civil liability (§ 24 LKSG, para. 1-2). The primary enforcement agency is the Federal Office for Economic Affairs and Export Control (BAFA), which is empowered to monitor compliance and penalise non-compliance (§ 19 LKSG, para. 1). Companies covered by the Act must register with BAFA and are subject to audits of their annual reports and due diligence processes (§ 12 LKSG, para. 1-2). If BAFA identifies deficiencies or non-compliance, it can issue orders (e.g., instructing a company to rectify shortcomings in its risk management) and impose fines for specific violations of the law (§ 24 LKSG, paras. 1-2). The LKSG sets out an extensive list of administrative offences in Section 24. For instance, failing to perform a risk analysis, not taking required preventive or remedial action, not establishing a complaint procedure, or not publishing a due diligence report are all punishable offences (§ 24 LKSG, para. 1-2). Violations can incur penalties up to €100,000 or €500,000 per case, and in certain serious cases (such as ignoring an official order or failing to conduct any risk analysis), fines up to €800,000 are authorised (§ 24 LKSG, para. 2). For very large companies with annual revenues over €400 million, the law allows even higher fines: up to 2% of the company's average annual global turnover for the gravest breaches (§ 24 LKSG, para. 3). These "revenue-based fines" make the LKSG one of the first German laws to incorporate GDPR-style percentage fines, reflecting the legislature's intent to create increasingly meaningful consequences for non-compliance (Mittwoch & Bremenkamp, 2023, p. 215).

In addition to fines, the Act includes a notable sanction affecting public procurement. Specifically, if a company is subject to a final and binding fine exceeding a certain threshold, public contracting authorities are generally required to exclude that company from tender processes for a specified period, unless and until the company demonstrates that it has remediated its deficiencies. Furthermore, while the enforcement of the LKSG is administrative, the law also provides avenues for civil society and affected parties to participate further (§ 11 LKSG, paras. 1-2; Mittwoch & Bremenkamp, 2023, pp. 214-215). Although the Act explicitly states that a breach of the statutory due diligence duties does not give rise to new civil liability (§ 3 LKSG, para. 2), it introduces a special form of legal standing to facilitate civil actions under existing law (§ 11 LKSG, para. 1)(Kieninger, 2021, p. 252). Section 11 of the LKSG allows persons whose protected rights have been violated to authorise a German trade union or NGO to bring a lawsuit on their behalf in German courts (§ 11 LKSG, para. 1)(Mittwoch & Bremenkamp, 2023, p. 215). This provision, often referred to as “Prozessstandschaft” or representative action, was included to lower practical barriers for foreign workers or communities seeking remedies through German civil litigation, such as claims under general tort law (Kieninger, 2021, p. 252). In effect, it empowers German labour unions or human rights organisations to sue a German company for damages or injunctions in a German court on behalf of an affected person, which can help overcome issues of standing and resources (Kieninger, 2021, p.252). However, it is essential to note that any such lawsuit would rely on pre-existing legal bases, such as negligence under the civil code; the LKSG itself does not create the claim for damages, it merely enables representation (Mittwoch & Bremenkamp, 2023, p. 215). Early commentary described the Act as a “paper tiger” in this respect, as it fell short of introducing a direct civil cause of action (Kieninger, 2021, p. 252).

Nonetheless, the combination of administrative enforcement by the BAFA and potential civil litigation via authorised NGOs creates a multifaceted enforcement regime (Mittwoch & Bremenkamp, 2023, pp. 214-215). Potential victims can prompt action either by informing the regulator (BAFA is obliged to investigate complaints about a company’s compliance, and anyone can report suspected violations to BAFA (§ 19 LKSG, para. 2), or by empowering an NGO to take the company to court for underlying harms (§ 11 LKSG, para. 1). BAFA itself has been given additional resources and powers to carry out audits, including the right to enter company premises, demand information, and issue orders and fines (§ 19 LKSG, para. 1-2; Mittwoch & Bremenkamp, 2023, pp. 214-215). Companies thus appear to be under heightened pressure to demonstrate compliance as they face public disclosure of their efforts, oversight and penalties from BAFA, and scrutiny from NGOs who can leverage either regulatory processes or courts to hold them accountable (Mittwoch & Bremenkamp, 2023, p. 215).

German authorities have signalled that, in the first year, they will focus on helping companies comply but will not hesitate to penalise clear violations, especially failures to conduct a risk analysis or establish a complaints process (BAFA, 2023, p. 5). As the first significant enforcement of human rights due diligence in Germany, the LKSG is seen as a potential model for the upcoming EU Corporate Sustainability Due Diligence Directive (Mittwoch & Bremenkamp, 2023, p. 215). Companies are therefore keen to show “adequate compliance”, a somewhat flexible standard that BAFA will evaluate based on the company’s context (size, sector, etc.) and the criteria in the law (§ 24 LKSG, para. 3)(Mittwoch & Bremenkamp, 2023, p. 215). Ultimately, the success of the LKSG will be measured by whether it prompts companies to prevent abuses and address problems in their supply chains systematically.

Other Existing Mandatory Regulation

Several countries and regions around the world have introduced or are in the process of developing mandatory human rights and environmental due diligence laws similar to Germany’s LKSG (Bueno & Bright, 2020, pp. 789–790). These laws and mechanisms require companies to proactively identify, prevent, and mitigate human rights abuses and environmental harms in their supply chains (European Commission, 2022, pp. 2–4). However, while many of these laws share similarities with the LKSG in promoting corporate accountability, there are notable differences in scope, enforcement mechanisms, and critical obligations (OECD, 2023, pp. 12–13). The LKSG balances human rights and environmental risks, but countries like France and upcoming EU regulations go even further, particularly with broader applicability and more vigorous enforcement measures (European Parliament, 2022, pp. 111–119). On the other hand, some laws, such as the UK Modern Slavery Act and the Swiss counter-proposal, are far more limited in scope and enforcement (LeBaron & Rühmkorf, 2019, pp. 17–18)(Federal Council of Switzerland, 2021, pp. 208–215).

For contextualisation purposes, Table I in the Appendix provides a brief overview of how these other laws differ from the LKSG in several key aspects, such as scope, key obligations, enforcement mechanisms, and limitations.

Having explored the context of the case around El Cerrejón and the legislative framework of the LKSG designed to address such issues, the focus now shifts to this study’s underlying theoretical framework.

THEORETICAL FRAMEWORK

This section defines the theoretical framework for studying the LKSG’s mechanisms’ impact on social equity in the context of coal value chains. It starts with an introduction to scale-jumping within Political Ecology theory, which analyses how actors strategically navigate and reconfigure spatial scales to assert influence, contest governance structures, and mobilise responses to injustices. It then proceeds with a review of the GVC framework, outlining its conceptual foundations, analytical dimensions, and relevance in understanding the structural governance of transnational production networks. Finally, it expounds on the advantages of the combination of GVC with political ecology, specifically *scale-jumping*.

Political Ecology: Scale, Power, and "*Scale-Jumping*" in Socio-Environmental Conflicts

Political ecology offers an important analytical lens by examining how power dynamics and environmental conflicts unfold across different scales (local, national, and global). A key tenet is that scale is socially constructed, with political ecologists arguing that what is called "local" or "global" is not pre-given but actively produced and contested through social and political processes (Neumann, 2009, pp. 398-406). Actors will often try to rescale issues to arenas where they hold more power or legitimacy, leading to the concept of *scale-jumping*, which is especially relevant in socio-environmental conflicts. Coined in geography (e.g. by Neil Smith and others), scale-jumping refers to the strategic shifting of a struggle from one scale to another to build leverage. Smith (Smith, 2008, pp. 229-232) describes scale-jumping as a resistance strategy enabling alliances with actors at higher levels of governance or access to resources and decision-makers that are beyond the local realm. In other words, marginalised groups "jump" to a larger scale (e.g. from local to global) to overcome the power imbalances they face at the local scale (Smith, 2008, pp. 230-236).

This tactic has been observed in numerous environmental justice movements. For example, research by Green (2016) shows how village councils in cases of land conflict engaged in scale-jumping by invoking the authority of higher-level governance and drawing support from outside, thereby altering power relationships on the ground. In practice, this might mean a local community affected by mining reaches out to national courts or international NGOs, effectively moving the conflict to a higher scale where the community's grievances can gain broader support. It could also mean that, through the use of the German firms' complaints mechanisms, affected local communities could convert the firms into their agents at a higher scale of governance, with the companies thus facilitating scale-jumping. By extension, this would mean that the LKSG, mandating these complaint mechanisms for German firms, is conducive to scale-jumping.

Notwithstanding, scale-jumping is not limited to actors or movements seeking socio-environmental justice but is also used by private or state actors. Examples include water management in Ecuador, where scale shifts consolidated power (Swyngedouw, 2004b, p. 133), and South Korea's use of scale jumping to legitimise environmentally harmful economic strategies internationally (Hwang, Lee, & Müller-Mahn, 2016). What remains, however, is that effective scale jumping depends on actors' agency and capability to construct cross-scalar networks, a challenging process for marginalised groups due to global hegemonic policies prioritising deregulation and free trade (Swyngedouw, 2004b, p. 133)(Neumann, 2015, pp. 476–477). Nonetheless, the spatial expansion of protests from local to global levels can be facilitated by the diffusion of transnational networks and international norms. Schilling-Vacaflor and Flemmer (2015, p. 497) further emphasise that “scale jumping…has been facilitated by the transnationalisation of governance and growing interrelations between formerly separate policy fields,” underscoring the structural opportunities for local struggles to gain international visibility.

Political ecologists also examine how power is exercised through scale. For instance, national governments might downscale responsibilities to local authorities (devolution) to defuse opposition, or corporations might engage in “scale bending” by reframing global issues as local technical problems (Jonas, 2006, p. 401)(Smith, 2004, pp. 192–193). As Kurtz (2003) and others note, environmental justice conflicts often feature communities attempting to elevate their local struggles to national or international attention (a classic scale jump), while powerful actors may try to keep issues compartmentalised at a favourable scale (e.g., treating an oil spill as a local issue rather than a national scandal). Thus, power and scale are intertwined: controlling the scale of a discourse can be a form of power itself (Smith, 1992, p. 67)(Swyngedouw & Heynen, 2003, pp. 899–900). Political ecology offers numerous case studies of this interplay, demonstrating, for example, how global NGOs empower local protests by providing frameworks such as Indigenous rights or climate justice, or how states navigate multi-scalar pressures by balancing local opposition with global market demands (Keck & Sikkink, 1998, pp. 12–13)(Bebbington, 2015, pp. 87–88).

Scales, Power, and Agency

Today’s global political structure is territorial, with defined geographical boundaries, yet ecological and economic processes frequently transcend these limits, becoming vectors for the production of “space” through mechanisms of empowerment and disempowerment (Swyngedouw, 2000, p. 68)(Swyngedouw, 2004a, pp. 34-35). At the heart of this spatial production lies a tug of war for power, a concept extensively examined by scholars such as Foucault (1980, pp. 92–95), Harvey (2006, pp. 103–105), and Lefebvre (1991, pp. 38–39). According to Swyngedouw (2004a, pp. 34-35), as scales are constructed and deconstructed through socio-economic conflicts, power distributions shift, benefiting some actors while disadvantaging others.

Recognising power differentials within and across scales is crucial, as scales continuously evolve through socio-ecological relationships (Neumann, 2015, p. 476). In this context, the state's role remains significant but insufficiently exclusive in scale production, given NGOs' emergence as pivotal players reshaping scales (McCarthy, 2005, pp. 735-737). Swyngedouw (2004a) confirms the declining regulatory role of the state through rescaling processes, transferring governance responsibilities upward (supranational) or downward (local/regional) (p. 22). Furthermore, capitalism's competitive ethos incentivises TNCs to exploit weaker governance zones, intensifying marginalisation and negative impacts on citizens (Swyngedouw, 2004a, pp. 38, 42).

A here critical dimension intertwined with scales and power dynamics is agency, defined as the capacity of individuals or groups to act independently, make their own choices, and influence outcomes within socio-ecological systems (Svarstad et al., 2018, pp. 354-356). Agency is crucial in scale jumping, as it determines the extent to which actors can successfully shift issues from local to national or global arenas to advance their interests or address grievances. Within political ecology, agency is frequently analysed through various lenses:

1. Actor-focused agency: This perspective emphasises the strategic actions and choices of actors within specific structures, such as value chains or governance frameworks. Here, agency refers to actors' ability to navigate, challenge, or reshape existing structures to their advantage, reflecting their strategic capacities and resources (Svarstad et al., 2018, pp. 354-356).
2. Neo-Marxist agency: From this viewpoint, agency is embedded within broader capitalist structures and class relationships. Actors' agency is shaped by their positions within the global capitalist system, influencing their capacities to resist or perpetuate existing socio-economic inequalities. This understanding highlights how structures simultaneously enable and constrain actors' actions, foregrounding class-based power struggles (Svarstad et al., 2018, pp. 356-358). Given the study's focus on global value chains and socio-economic inequalities linked to extractive industries and corporate power, the neo-Marxist perspective is particularly relevant. It explicitly addresses structural constraints faced by marginalised groups, making it highly suitable for analysing how these actors might exercise agency within a system marked by significant power disparities. It is thus through this lens that agency is examined here.
3. Post-structuralist agency: Influenced significantly by Foucault, this perspective considers agency within the context of discourse and knowledge production. Here, actors' agency is exercised through participation in, resistance to, or transformation of discourses that legitimize certain forms of power and control. Agency, thus, involves

negotiating meanings, identities, and truths that underpin power relations (Svarstad et al., 2018, pp. 358-360).

Scale theory, significantly influenced by World Systems Theory, identifies a core contradiction in global capitalist production: processes of homogenisation and differentiation manifest across scales, perpetuating inequality (Smith, 2008, pp. 229-236)(Wissen, 2008, pp. 13-14)(Brad, 2019, p. 51). Capital mobility juxtaposed with local fixity of labour conditions exemplifies this contradiction, with capital continually altering scales through its movement, reshaping power relations and biophysical processes (Smith, 2008, pp. 229-236)(Brad, 2019, p. 51)(Wissen, 2008, pp. 13-14).

Limitations

While political ecology adeptly underscores uneven power relations and multi-level linkages, its scalar focus has important limitations. It tends to analyse broad political-economic structures (e.g., neoliberal policies or neo-colonial relations) without detailing the internal dynamics of corporate networks and supply chains. In other words, "the (inter-)firm organisation is not considered of central developmental significance" in most political ecology analyses (Dorn & Huber, 2020, pp. 185-186). Local-to-global explanations in political ecology may invoke generic forces like "global markets" or "transnational capital", yet remain relatively abstract about how specific corporations, investors, and intermediaries connect the local mine or forest to distant consumers (Goldstein & Newell, 2021, pp. 588-590). The scalar lens, focusing on levels (local/global) and alliances, can therefore overlook the structured pathways, meaning the actual commodity flows and business relationships, through which those distant forces materialise. This means that questions of governance and accountability along the chain are not resolved by political ecology alone.

A political ecology analysis might describe how colonial legacies and neoliberal policies enabled large-scale mining, and how local activists "jumped scale" by bringing their grievances to European forums (Smith, 2008, pp. 229-232). While this reveals important context and power inequalities, it falls short of explaining the corporate structure of the coal trade: Which companies broker or transport the coal? Do German utilities source coal via direct contracts or spot markets? Who has the ability or obligation to enforce better practices at the mine? These concrete questions of chain governance demand tools beyond political ecology's usual repertoire. This is problematic when trying to understand or reform supply chain accountability. Without a detailed map of the chain, one cannot easily discern where regulations or pressure might be applied to address injustices (Dorn & Huber, 2020, pp. 189-190).

In essence, political ecology alone cannot fully illuminate "the authority and power relationships that determine how financial, material and human resources are allocated and flow within a chain" (Dorn & Huber, 2020, p. 191). Those very relationships, which actors set the terms of trade, command information, and control profits, are the domain of global value chain analysis (Ponte, Gereffi, & Raj-Reichert, 2020, pp. 133-141). Thus, to rigorously analyse transnational environmental injustices and assign responsibility, we must go beyond political ecology and incorporate a framework that dissects global value chain governance.

GVC Framework

As Campling and Havice (2019, p.1) put it: "Global value chains, the firm, and the environment cannot be separated". The value chain offers an analytical starting point for understanding the organisation of transnational economic activities and their interactions with local actors and institutions (Gibbon et al., 2008, p. 2). The value chain is where various social, economic, political, and environmental stakeholder actors intersect with one another, as well as with the dimension of law, whether directly or indirectly, on different scales, including local, national, and global (Gereffi & Lee, 2016, pp. 27-29). A buying firm at one end of a value chain may not be directly involved with the people in and around the local operations of its supplying partner at the other end. Yet through its acting ability vis-à-vis that supplier and various governing (Human Rights) laws and codes, it intersects with these. Codes are mandated at different levels within a value chain and by different actors and can act as a binding agent between the different constituents.

These value chains, being constituted, run, organised, and, thus, coordinated by strong international firm actors, in turn, compose, drive, and organise a global economic system. They are "the world economy's backbone and central nervous system" (Palpacuer, 2019, p. 1), accounting for around 80% of global trade. This coordination, be it buyer- or supplier-driven, is not the result of mere spontaneous market exchange but is the outcome of precise strategies by distinct actors at regional, national, and local levels (Gibbon et al., 2008, p. 2)(Gereffi & Lee, 2016, p. 30).

1. Lead Firms, Governance, and Power in Global Value Chains (GVCs)

The Global Value Chain framework emphasises how lead firms (often powerful multinational buyers or producers) shape and govern the entire chain of activities from production to consumption. Lead firm governance is a cornerstone of GVC, providing a basis for analysing how global production is organised and controlled for various industries (Gereffi et al., 2005, pp. 84-94)(Ponte et al., 2019, pp. 21-24). In essence, lead firms set requirements, select suppliers, and coordinate key activities across borders, exerting outsized influence over who does what in the chain (Gereffi et al., 2005, pp. 81-84). This governance role means lead firms can enforce product standards, control information flows, and appropriate a large share of value.

Recent research has also examined the power dynamics inherent in these relationships. For example, Dallas et al. (2019) show how lead firms use both direct control and more subtle forms of power to achieve desired outcomes (Dallas, Ponte, & Sturgeon, 2019, pp. 669-685). They argue that power in GVCs operates in multiple "faces" (direct bargaining power, setting the agenda, shaping preferences, and norms) to maintain lead firm advantages. Overall, the literature supports that lead firms function as system "governors" in GVCs, by orchestrating activities and outcomes across multiple production stages.

Gereffi et al. (2005, pp. 78-104) formalised the concept of GVC governance, identifying different coordination forms (market, modular, relational, captive, and hierarchy) that describe how lead firms manage supplier relationships. This typology is determined by factors like the complexity of transactions, the ability to codify information, and supplier capabilities, which together dictate whether a value chain link is governed through arm's-length market relations or through tighter forms of coordination. For example, in captive chains, small suppliers are highly dependent on dominant buyers and subject to strong monitoring, whereas in relational chains, governance is achieved through trust, reputation and long-term relationships.

Traditionally, power in GVCs was examined in terms of "*drivenness*", i.e. whether a chain is producer-driven or buyer-driven (with the lead actor type indicating who exercises power). Contemporary research has advanced beyond this dichotomy to identify multiple dimensions of power in chains. For example, Dallas, Ponte & Sturgeon (2019) propose a typology of power as bargaining power (direct control through asymmetrical exchanges), institutional power (the ability to shape standards, rules, and norms governing the chain), demonstrative power (influence through best practices or models that other actors emulate), and constitutive power (the power to shape underlying values and preferences, e.g. what is considered "quality"). They argue that many forms of GVC power go beyond simple buyer-supplier bargaining. For instance, civil society actors or consumer movements can exert influence by redefining norms (e.g. demanding fair trade or deforestation-free products), which in turn pressures lead firms to change practices.

Therefore, governance is shaped by a mix of private, public, and civil society actors, with studies highlighting how multi-stakeholder initiatives and international frameworks (UN Guiding Principles, ILO conventions) blend public and private authority, establishing governance as a networked, multi-level process rather than merely top-down (Ponte et al., 2019, pp. 4-7; Mayer & Phillips, 2017, pp. 135-137). Underlying this finding is that lead firms do not operate in a vacuum - their global chains are embedded in institutional contexts and subject to influence by states, international organisations, and NGOs (Ponte et al., 2019, pp. 2-7). States can establish regulatory frameworks or industrial policies that affect the value chain function, even as some argue that states have partly outsourced governance to private actors under globalisation (Mayer & Phillips, 2017, pp. 133-137). Mayer and Phillips (2017, pp. 134-136) describe how the rise of a "GVC world" has often marginalised traditional state power, yet states remain crucial in providing infrastructure, trade agreements, and regulations. Simultaneously, civil society and labour organisations actively influence governance through advocacy campaigns for human and labour rights, fair trade, and environmental sustainability (Bair & Palpacuer, 2015, pp. 3-5).

Indeed, researchers have documented cases where NGOs, labour unions, and activist networks shape GVC governance, sometimes working through private standards (like fair labour or environmental certification) or public campaigns that affect a firm's reputation and market access (Bair & Palpacuer, 2015, pp. 3–4)(Mayer & Gereffi, 2010, pp. 9–11). Bair and Palpacuer (2015, pp. 122-124) describe how anti-sweatshop movements and other transnational advocacy networks have contested GVC governance, pushing lead firms to adopt codes of conduct and more socially responsible practices. They term this "contested governance," demonstrating how corporate social responsibility and NGO campaigns integrate social and environmental concerns into GVC management (Bair & Palpacuer, 2015, pp. 3–4). Such "social" or civil governance mechanisms are increasingly recognised alongside private (corporate-controlled) and public (state-led) governance in shaping outcomes in GVCs (Ponte, Gereffi & Raj-Reichert, 2019, pp. 12–14)(Dallas, Ponte & Sturgeon, 2019, p. 676).

Still, as many scholars caution, private or hybrid governance is often fragile and contingent on advocacy pressure; without continual public scrutiny or the threat of legal liability, these voluntary efforts may wane or replicate existing power imbalances rather than truly empower vulnerable groups (Schneider, 2019, p. 278)(LeBaron & Rühmkorf, 2017, pp. 19–20). This is why political ecologists and critical GVC researchers alike stress the need to examine whose voices and interests prevail in crafting supply chain governance and to seek more inclusive, equitable arrangements (Schneider, 2019, p. 278; Dallas et al., 2019, pp. 684–685). Moreover, private codes often focused on issues that threaten the firms' own operations (the "internal" efficiencies) and treated many social and environmental costs as externalities beyond the scope of chain governance (Mayer & Gereffi, 2010, pp. 11–13)(Ponte & Gibbon, 2005, pp. 3–4). As Gereffi et al. (2011) note, there has been a governance gap whereby lead firms rigorously govern the aspects of production that affect profit but neglect or outsource responsibility for labour rights, human rights, and the environment to local actors or governments (Gereffi & Lee, 2016, pp. 35–36)(Barrientos, Gereffi, & Rossi, 2011, pp. 322–324). This gap has spurred new forms of public governance, as discussed next (Schilling-Vacaflor & Lenschow, 2021, pp. 127–129).

2. GVCs, Human Rights, and Emerging Supply Chain Regulation

In recent years, there has been growing attention to the intersection of global supply chains with human rights, labour standards, and environmental sustainability. Studies found that economic gains for suppliers do not automatically translate into better socio-environmental outcomes without deliberate governance interventions (Barrientos, Gereffi, & Rossi, 2011, p. 324). Consequently, scholars and practitioners have explored multi-stakeholder and regulatory mechanisms to promote social and environmental accountability in GVCs.

One important development is the rise of public regulation targeting entire supply chains. Governments, prodded by civil society campaigns and high-profile corporate scandals, have started to enact laws that mandate corporate due diligence for human rights and environmental impacts in their global value chains (LeBaron & Rühmkorf, 2017, pp. 16-18)(Palpacuer, 2019, pp. 4-5). For example, the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, 2021) came into force in January 2023, requiring large German companies to identify and address human rights abuses and environmental harm in their international supply chains (Saage-Maaß & Seck, 2021, pp. 2-4)(LKSG, 2021). This law (and similar legislation like France's 2017 Duty of Vigilance law and proposed EU directives) effectively aims to "jump scale" by extending national legal obligations across global production networks (Bright et al., 2020, pp. 790-792). It reflects a shift from voluntary corporate social responsibility to binding rules that hold lead firms accountable for conditions at foreign suppliers, thus rescaling governance to bridge local realities and global oversight (Schilling-Vacaflor & Lenschow, 2021, pp. 128-130).

From a GVC perspective, such laws represent public governance of chains: they compel lead firms to exercise oversight (i.e. governance) over their suppliers not just for quality or cost, but for social and environmental performance (Gereffi & Lee, 2016, pp. 28-29). In effect, they seek to transform what were previously externalised "externalities" into internalised responsibilities of the chain's lead actors (Dallas, Ponte & Sturgeon, 2019, pp. 676-677)(Ponte, Gereffi & Raj-Reichert, 2019, pp. 12-13). Academic analyses note both the potential and limitations of these laws. On one hand, they codify the notion that lead firms "can and must govern their value chains" with regard to human rights and the environment (LeBaron & Rühmkorf, 2017, p. 19). On the other hand, enforcement and liability remain challenging with questions arising about how far down the chain liability extends, how to handle jurisdictional gaps, and whether affected communities can effectively seek remedy (e.g. via courts or complaint mechanisms) (Bright et al., 2020, pp. 794-795)(Saage-Maaß & Seck, 2021, pp. 12-14).

Nonetheless, the German Supply Chain Act and its ilk are a noteworthy example of public and private governance intersecting: they were largely motivated by years of NGO advocacy and even litigation in European courts on behalf of affected communities, and now they create a legal framework that pressures firms to proactively manage social/environmental issues or face sanctions (Schilling-Vacaflor & Lenschow, 2021, pp. 135-137)(ECCHR, 2023, p. 4). In the context of coal, this means German energy companies must consider the human rights of communities impacted by mining activities and environmental damage at mines like El Cerrejón in Colombia – a direct linkage of local ecological justice concerns to a European legal regime (Cardoso & Turhan, 2018, pp. 35-37)(ECCHR, 2023, p. 4). Indeed, activists see such laws as an opportunity for "scale jumping" in practice: indigenous and Afro-Colombian communities harmed by El Cerrejón's operations can invoke the German law to pressure the mine's international buyers, essentially taking a local struggle to the transnational legal arena in search of accountability (ECCHR, 2023, p. 4)(Schilling-Vacaflor & Lenschow, 2021, pp. 137-138). This illustrates how transnational supply chain law enforcement can become a new tool for social and environmental justice, aligning with GVC scholars' call to bring institutions and regulation back into our understanding of chain governance.

The applicative purposes of GVC analysis

The GVC approach has shown large 'real world' applicability in various contexts, whether in policy-making or policy interventions, research and academia, or value chain activism and resistance (Bair, 2005, pp. 6–9)(Gereffi & Lee, 2016, pp. 27–28). A prominent example of this has been the uncovering of rights abuses in the apparel industry, where, through the unravelling of inter-firm networks, the power configuration between the various constituents was revealed, precipitating the enforcement of codes of conduct at the identified critical points along the chain (Bair & Palpacuer, 2015, pp. 3–4)(Gereffi & Lee, 2016, p. 31). This was a significant effort in an originally untransparent industry controlled by powerful and mobile major buyers on one side and marked by a largely powerless workforce and frequently unseen by consumers on the other (Bair, 2005, p. 9)(Ponte, Gereffi, & Raj-Reichert, 2019, pp. 14–15). In addition, despite generally being auxiliary to the core processes, nodes, and actors within the chain, NGOs such as anti-sweatshop and advocacy groups for 'clean clothes campaigns' were central in this unveiling activist movement (Bair & Palpacuer, 2015, pp. 7–9). A substantial result has been to compel lead firms to be accountable for what transpires in and around their global suppliers' and subcontractors' factories, regardless of their lack of equity relations (LeBaron & Rühmkorf, 2017, pp. 17–19). Examples such as this are instances where the actual utilisation of GVC research is most conducive to 'real' change beyond mere academic employment (Bair, 2005, pp. 9–10)(Ponte et al., 2019, pp. 14–15).

The GVC Framework and Scales in Political Ecology

From an integrated theoretical standpoint, this case exemplifies the interplay of GVC governance and scalar politics. The lead firms and investors exercise power through the chain (deciding from where to source coal), but are increasingly accountable to multi-level governance: home-country regulations, international norms, and activist scrutiny. Meanwhile, local actors engage in scale-jumping to challenge the existing terms of the global value chain, seeking to “re-govern” it more justly by drawing new actors (such as international courts or NGOs) into the governance process. Thus, the Cerrejón–Germany coal linkage can be analysed as a global value chain with embedded political-ecological conflicts. It highlights how environmental justice issues travel up and down the chain. Echoing Bell and York (2012), one cannot fully understand the local health and environmental impacts at Cerrejón without situating them in the global context of coal markets and energy demand.

Conversely, German energy policy cannot ignore the externalised costs at the point of extraction. By combining GVC and political ecology frameworks, analysts can gain a comprehensive understanding of the chain of economic activities and the chain of consequences and contestation. This comprehensive approach has been applied in similar cases (e.g., oil from Nigeria, lithium from Bolivia, palm oil from Indonesia) and is increasingly important for addressing global sustainability challenges. Overall, the Cerrejón case underlines that global value chains are not just economic conduits but also have political and ecological implications which stretch across scales. Lead firm decisions in one country can trigger environmental justice struggles in another, and those struggles can, in turn, reverberate back to reshape governance of the value chain.

To sum up, when combined, the GVC framework and the concept of scales from Political Ecology offer a comprehensive approach to understanding how global economic activities (organised within value chains) intersect with local and global socio-environmental dynamics (Ponte et al., 2019, p. 668)(Bridge, 2008, p. 391). The GVC framework allows for the mapping and analysis of how different actors across various scales (local to global) influence and are influenced by value chains. Political Ecology’s focus on scales enriches this analysis by highlighting how power is contested and negotiated across these different levels, showing how local actors can leverage direct influence high up the value chain to challenge the non-compliance of corporate actors in their localities (Swyngedouw, 2004a, pp. 34-35)(Smith, 2008, p. 229).

Having established the theoretical framework that underpins this study, the focus now shifts to the methods section.

METHODS

This chapter presents the methodological approach, drawing on the research questions and theoretical framework outlined above. The specific methodologies employed to gather and analyse data provide a clear link between the theoretical constructs of global value chains, agency, scale jumping, and governance. Outlined below are the research design, data collection procedures, and analytical techniques used to explore the impact of the LKSG on the different governance actors.

Research Design

This research employs a qualitative embedded single case study design, focusing on the El Cerrejón coal value chain of German energy producers and its intersection with the Wayúu within the context of the German LKSG law. A single case study research was selected because it allows an empirical inquiry into a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between the phenomenon and context are blurred (Yin, 2014, p. 16). The LKSG's impact on a complex international supply chain and local community dynamics is best understood in situ, considering social, legal, and economic contexts. Furthermore, because the study emphasises El Cerrejón as a single case, multiple sources of evidence (e.g. documents, reports, and interviews) were incorporated to enable triangulation.

The design is embedded in that multiple units of analysis within the case are examined, such as different stakeholder groups (e.g. local community, mine operators, German importers) and specific processes (e.g. the complaint mechanism under LKSG) as integral parts of the case. An embedded single-case design permits attention to these sub-components without losing sight of the holistic context (Yin, 2014, pp. 50–51). By structuring the inquiry this way, one can capture how local experiences relate to national and international structures, which is essential for understanding the multi-level governance issues surrounding the LKSG and El Cerrejón. The case study approach thus situates the data within the socio-political environment of the mine, illustrating how phenomena observed (such as community grievances or compliance measures) are contingent on contextual factors. Moreover, this context-rich, embedded design enhances the study's ability to draw meaningful connections between micro-level data (e.g. interview insights) and macro-level patterns (e.g. value chain links), aligning with the study's exploratory and explanatory aims.

Why this Case?

Complexity of Governance and Power Dynamics

El Cerrejón is one of the largest open-pit coal mines in the world and is owned by the biggest mining corporation in the world, Glencore. Much of the coal extracted here is exported to European markets, including Germany, where the LKSG is in power. What is more, this mine has been at the centre of various controversies involving human rights abuses, environmental degradation, and the displacement of local indigenous communities, particularly the Wayúu people.

The governance of this mine is characterised by a multifaceted array of actors, including multinational corporations, local and national governments, civil society organisations, and local communities. While civil society actors and the Wayúu community unite in their opposition to El Cerrejón, the government occupies an intermediary position, reflecting the nuanced dynamics of power contestation among these groups. Intersecting with all this is the LKSG, which intends to ensure that German companies are, to the extent defined in the law, responsible for knowing the conditions under which their supplies are produced, regardless of geographical distance. Ultimately, El Cerrejón, with its well-documented issues, offers a concrete example to evaluate whether the LKSG can drive meaningful improvements in such a complex and distant context.

Value Chain Analysis

This case presents a valuable opportunity to reveal and analyse the German energy producers' value chains, examine their governance structures, and draw inferences about their intersection with the functionality of complaints mechanisms and due diligence within the framework of the LKSG. It allows for scrutiny of industry discourse and value chain obfuscation, and how it effectively impacts the functionality of the Due Diligence Law.

Illustration of Scale Jumping and Testing the Mechanisms

The recently implemented complaints mechanisms by the German firms far up the value chain constitute an ideal case for studying scale-jumping, exploring whether local actors can leverage international mechanisms like those mandated by the LKSG to influence decisions made at higher levels of the value chain.

El Cerrejón's history vis à vis local resistance and international advocacy provides a rich context for examining how grievance mechanisms function in practice. One can assess whether and how these mechanisms enable the affected communities to bypass local power structures, which may be weak or complicit, and enhance their agency, influencing corporate behaviour and leading to actual changes in the value chain.

International Relevance

El Cerrejón is a compelling case study for evaluating the effectiveness of the LKSG because it exemplifies the complex interplay between global value chains, governance structures, and local socio-environmental impacts. The mine's significance within the German and global coal market, its severe local impacts, and the existing international attention make it an ideal object of study. Examining how grievance mechanisms function in this context can provide valuable insights into whether the LKSG and, thus, similar laws can effectively protect human rights and the environment within global value chains and how they can be improved. Moreover, El Cerrejón is significant not only within Colombia but also within international legal and corporate governance contexts. The mine's operations are directly tied to European and global markets, where increasing attention is being paid to corporate responsibility and supply chain transparency.

Units and Subunits of Analysis

In this study, the units of analysis are defined as follows:

The LKSG

This serves as a foundational unit, focusing on the guidelines on risk management for responsible corporate governance within supply chains.

The Grievance Mechanisms

This unit analyses the usefulness and efficacy of the grievance mechanisms in place. It assesses if and how these mechanisms address the concerns of the Wayúu and other affected communities and evaluates their effectiveness in resolving disputes and ensuring compliance with local and international human rights standards.

The Wayúu Affected in the Localities Around the Mine

This unit focuses on the behaviours and reactions of the local communities vis-à-vis the existing grievance mechanisms. It examines how these individuals and groups use or refrain from using the mechanisms to address their grievances, including the barriers they face in accessing or trusting these processes.

The Coal Value Chain of German Energy Producers EnBW, Uniper, and STEAG

This unit examines the power dynamics between buyers and sellers within the coal value chain, focusing on how German energy producers manage their relationships with suppliers, particularly in terms of enforcing human rights and environmental standards. It also entails the private, public, and social governance actors.

Each of these units of analysis provides a crucial lens through which the broader impacts of mining operations on human rights and local communities can be understood and addressed. Together, they form a comprehensive framework for assessing the potential multidimensional effectiveness of measures designed to facilitate value chain due diligence.

Data Collection

The study's timeframe is the fiscal year 2023, and the data collected spans from 2013 to 2024. Data collection took place in two phases. First, for the purpose of value chain mapping, a mix of primary and archival data was gathered to identify key actors, activities, and linkages from the mine in Colombia to the power plants in Germany, thus determining the relevant German private actors for further analysis. Established guidelines for value chain analysis were followed, treating the chain as a series of vertical linkages or commercial relationships that bring the product from extraction to the final market (Dunn, 2014, p. 8). In other words, the mapping delineated the major, relevant stages and transactions through which coal passes, from the point of export at the mine’s private port, Puerto Bolivar, to the German market. This systematic mapping provided a visual and analytic framework of the chain’s structure. For the subsequent analysis of the private governance actors, secondary data was used. This included information gathered from company websites on grievance mechanisms and their layout, as well as information on sustainability compliance practices. It also entailed company reports such as financial and sustainability reports for 2023, and the specific 2023 LKSG reports. For information on, for example, decarbonisation commitments, energy transition, emergency energy provisions, energy generation, and compliance, sources such as news articles (Handelsblatt), independent data provider publications (such as Enerdata), CSO reports (e.g. Dachverband der kritischen Aktionäre, World Benchmarking Alliance), and public governmental bodies’ and institutions’ publications (e.g. European Commission, Contraloria General de Boyaca, Bundesnetzagentur) were incorporated.

Second, during field research in Colombia from May 2024 to June 2024, primary data was collected through semi-structured expert interviews with relevant stakeholders to shed light on the on-the-ground realities and effectiveness of the complaints mechanisms and risk management systems mandated by the LKSG. Data from these interviews was also drawn upon for the examination of public and social governance actors. This was accompanied by further collecting secondary data through company websites, company reports (such as financial and sustainability reports, LKSG sustainability reports), news articles (e.g. by ABC Colombia), civil society publications (e.g. by GLAN), legal documents, and publications by public governing bodies and institutions.

Table 2 below provides an overview of the primary and secondary data sources and their purpose.

	Data sources	Amount
Primary	*Port inquiries:* - Inquiries at the ARA, as well as 3 main German ports	*3*
	Semi-structured expert interviews: - The Wayúu and Wayúu Defence Front representative (05/2024), 1h30 interview - Censat Agua Viva (NGO 2) (05/2024), 1h interview - Wayúu Munserrat (NGO 3) (06/2024), 1h interview - GIZ (GIZ) (06/2024), 1h interview - AHK (AHK) (06/2024), 45 min interview - INDEPAZ (NGO 1) (06/2024), 1h interview	*6* 1 1 1 1 1 1
	Ship tracking: - AIS-based Ship tracking coordinates provided by Marinetracker.com	*1*
Secondary	*Official company/private actor documents and reports:* - Financial reports and sustainability reports (including mandated LKSG reports) by private actors (Uniper, STEAG, EnBW, El Cerrejón)	*10*
	Multistakeholder initiative publications: - Information on standards and compliance measures	*2*
	Independent energy data providers and energy-related magazines: - Report on coal-based energy generation - Information on emergency energy provision	*2* 1 1
	Documents published by CSOs: - Information on energy transition, engagement, greenwashing, environmental degradation, resistance and cross-scalar organising	*8*
	Academic resources and papers - Academic publications	*5*
	News articles: - Information on commitments to decarbonisation, health impacts, resistance and organising	*3*
	Publications/ reports by public/institutional governing bodies - Information on energy coverage, governmental revenues, regulations, environmental degradation, health impacts	*11*
	Company websites - Grievance mechanism layout and management - Information on sustainability and risk management processes	*4*

Table 2 Summary of primary and secondary data sources.

Value Chain Mapping

The retracing of the value chain of the relevant German energy producers buying coal from El Cerrejón involved inquiries at major German ports (Hamburg, Bremen, and Wilhelmshaven) and ARA (Amsterdam, Rotterdam, Antwerp) ports in the Netherlands, focusing on records of coal shipments from Puerto Bolivar, El Cerrejón's port in La Guajira, Colombia. This was also crucial in revealing who the relevant firms are in the first place, i.e. who sourced from El Cerrejón in 2023. For this, detailed queries were also directed at coal power plants operated by the largest German energy producers still operating hard coal power plants: EnBW, Uniper, RWE, and STEAG, extending to their corporate headquarters for possible additional insights into coal logistics. To complement these inquiries, the secondary data collection method using ship tracking data from MarineTracker.com's GIS-based service was employed to monitor past dry bulk carriers' travels from Puerto Bolivar to the specified ports. This tracking was extended to inland ships departing from these international ports to various power plants. Although this ship tracking method proved highly efficient in providing real-time logistical data, it came with significant potential costs due to the fee-based nature of the data services. This financial constraint limited the extensive use of this approach.

The term "power plants" in this study refers exclusively to facilities that produce energy from hard coal. While some energy providers may also operate heat-generating plants, this study focuses explicitly on facilities dedicated to electricity production; therefore, heat-generating plants are not within the scope of this research. Additionally, industrial coal consumption is not considered, as the firms involved differ from those in the energy sector, resulting in distinct supply chains. Given the study's scope, expanding the analysis to include industrial coal use is not feasible. Finally, brown coal-based power plants are also excluded, as El Cerrejón exclusively produces hard coal.

Expert Interviews

Primary data were collected through semi-structured expert interviews with a range of stakeholders connected to the El Cerrejón case, aiming to capture a comprehensive and accurate depiction of the complex dynamics at play in the context of the LKSG and the mandated grievance mechanisms. Their balance of consistency and flexibility justifies the use of semi-structured interviews, where an interview guide ensured that key topics, such as community experiences and complaint processes, were covered with all participants. Meanwhile, the open-ended format allowed interviewees to elaborate freely and introduce new insights (Kallio et al., 2016, p. 295). This format provides depth and detail, as interviewers can probe interesting points and clarify respondents' meanings, improving the validity of the data (Barriball & While, 1994, p. 330). What is more, probing questions were used to unpack technical terms and ambiguous statements, which helped to "validate the meaning of respondents' answers" and explore sensitive issues more thoroughly (Barriball & While, 1994, p. 331). Such flexibility is crucial when discussing potentially contentious topics like corporate accountability and community well-being, as it builds rapport and enables participants to share information in their own terms.

An interview guideline was developed, involving gathering questions, assessing, sorting, and synthesising them for openness and relevance. A similarly structured guide was employed for all interviewees to maintain consistency across interviews, with minimal specific follow-up inquiries as needed. Minor adjustments tailored to each expert to effectively capture the unique insider knowledge of the actor group to which the expert belonged were also conducted. Before running the first interview, the guideline underwent a test of the effectiveness, organisation, and clarity of the questions. Following this pretest, the guideline was refined to serve data collection better. During the interviews, this guideline provided a framework that allowed for flexible adaptation to the dynamics of the discussion and the thematic elements raised by the interviewees while ensuring the research questions remained in focus.

The interviews were considered “expert interviews” in the sense that participants were selected for their specific knowledge and involvement in the case. In this study, "experts" are defined as individuals who possess highly specialised knowledge relevant to resource governance, the extractive sector, and the socio-political landscape in Colombia (Bogner, Littig, & Menz, 2018, p. 3). This expertise is not limited to academic qualifications but also encompasses extensive practical experience gained through active participation and (leadership) roles within key organisations, civil society, governmental bodies, and international institutions involved in or affected by the mining sector (Meuser & Nagel, 2009, p. 18). Experts in this context are uniquely positioned to provide insight into the institutional frameworks, policy mechanisms, and societal impacts associated with the LKSG and El Cerrejón operations (Bogner & Menz, 2009, p. 46). Their expertise extends beyond theoretical understanding, encompassing firsthand knowledge of the on-the-ground realities, including the challenges and opportunities faced by local communities, the private sector, and regulatory authorities (Meuser & Nagel, 2009, p. 26)(Bogner & Menz, 2009, p. 46).

Importantly, this definition of expertise also includes members of the Wayúu community who are directly impacted by the operations of El Cerrejón and who have engaged in advocacy, leadership, or other roles related to defending their rights and interests (Horowitz, 2017, p. 139). Including Wayúu individuals as experts recognises the invaluable, context-specific knowledge they hold about the direct and indirect effects of extractive activities on their land, culture, and well-being (Horowitz, 2017, pp. 142–143)(Witt, 2024, p. 1172). Their lived experiences provide crucial insights into the real-world implications of resource governance policies, making their perspectives essential to understanding the broader impact of the LKSG and similar legal frameworks (Witt, 2024, p. 1173). These individuals not only bring a personal understanding of the consequences faced by their communities but also contribute to the discourse on resource governance through their involvement in grassroots organising, legal challenges, and dialogues with both governmental and non-governmental entities (Horowitz, 2017, p. 145). Moreover, the Wayúu affected by the operations act as crucial informants on the efficiency of the grievance mechanisms put in place by the German firms, as affected people inherently have the highest propensity of utilising these mechanisms (Sawyer & Gomez, 2012, p. 15). By treating local participants as authoritative sources of insight (rather than just informants), the study acknowledges their lived experience of the El Cerrejón operations and empowers their voice in the research process. This approach aligns with participatory ethics and helps surface ground-level perspectives that might be suppressed or overlooked in top-down accounts of the LKSG's implementation (Witt, 2024, p. 1173).

Sampling Strategy

Purposeful sampling was applied to select interview participants who were most relevant to the research questions. Purposeful sampling involves intentionally choosing information-rich cases or individuals for in-depth study (Patton, 2015, p. 264). In this study, initial interviewees were identified based on their direct involvement with the mine or the LKSG. From these starting points, snowball sampling was also used to reach additional experts. Snowball sampling is a referral technique in which existing informants recommend further participants, creating a chain of referrals (Biernacki & Waldorf, 1981, p. 141). This method was valuable given the specialised and networked nature of the topic, leading to initial interviewees pointing to other stakeholders.

Resulting interviews

Prior to data collection, appropriate informed consent was obtained, and anonymity was offered to encourage frank discussion, given the political sensitivities around mining and human rights. In total, six interviews were conducted, each lasting approximately 60–90 minutes. Interviews were conducted in Spanish. These included three interviews with representatives from the NGOs Wayúu Munserrat, which is deeply embedded in La Guajira's local civil society, INDEPAZ, and Censat Agua Viva, both of which have a reach that extends from national to international levels, thereby facilitating a cross-scale linkage from local to global concerns. Additionally, discussions were held with a representative from the Wayúu community and Wayúu Defense Front, an advocate for German business interests from AHK Colombia, and a representative of the German organ for technical development cooperation GIZ who is involved in the Initiative LKSG, an initiative tailored explicitly to helping companies with the law's implementation in Colombia and Mexico. All interviewees wished to remain anonymous. The NGOs and their representatives with whom the interviews were conducted are coded as follows:

INDEPAZ (NGO1), Censat Agua Viva (NGO2), Wayúu Munserrat (NGO3)

German Chamber of Foreign Trade and Commerce to Colombia (AHK), GIZ (GIZ)

The Wayúu and Wayúu Defence Front representative (informant 1)

Data Analysis

Due to the interviewees' preferences, recordings were not permitted during the sessions. As a result, the analysis of the interviews relied on detailed notes manually taken during the discussions. This approach was necessary to respect participants' wishes while still collecting valuable data for the study (Patton, 2015, p. 472). When taking notes without recording, it is crucial to be as detailed and accurate as possible, capturing direct quotes, key phrases, contextual cues, and non-verbal communication (Bernard, 2017, p. 359). Immediately after each interview, reflective notes were added to capture the essence of the discussion, including the interviewer’s impressions and contextual observations not explicitly covered by the questions (Emerson, Fretz, & Shaw, 2011, pp. 45–46). Furthermore, an iterative review of the notes was conducted to ensure that themes and categories developed during coding accurately reflected the data, compensating for the inability to revisit original verbal expressions (Miles, Huberman, & Saldaña, 2014, p. 72). This meticulous note-taking and review process was essential for preserving the integrity and depth of the data analysis (Miles et al., 2014, p. 95).

Despite this limitation, the gathered notes were analysed using qualitative content analysis, employing the methodology outlined by Mayring (2015). Qualitative content analysis is a systematic, rule-guided method for interpreting textual data by categorising segments of text into themes or concepts (Mayring, 2015, p. 366). All interview notes and relevant documents, such as policy reports and corporate disclosures, were imported into NVivo software to facilitate coding. The process included a combination of deductive and inductive coding, where an initial codebook was defined based on the research questions and the conceptual framework, with deductive categories such as “compliance strategies,” “social impacts,” “value chain stage,” and “scale jumping.” Still, the analysis remained flexible to allow for new categories that emerged from the data inductively.

Mayring’s method is acclaimed for its systematic approach, making it an adaptable tool for various research contexts. At the heart of this method is the content analysis sequence model, which clearly defines three pivotal analytical steps: summarising, explicating, and structuring (Mayring, 2015, p. 62)(Meier Kruker & Rauh, 2005, p. 80). Following Mayring’s stepwise approach, the analysis thus proceeded in iterative phases. In the initial coding phase, notes were broken down into meaningful units (quotations or paraphrased segments) and were assigned preliminary codes. Next, in the categorisation phase, these codes were examined for patterns and grouped into higher-order categories. The data was continuously revisited to check that each category accurately reflected the interview content, revising category definitions as needed in a process of feedback loops typical in qualitative content analysis (Mayring, 2015, p. 370). To illustrate, if a new interview introduced a sub-theme not yet in the codebook (for example, “community mistrust”), a category was added or adjusted to incorporate that insight, with prior notes being rechecked for similar content (Yin, 2014, p. 123).

Throughout the analysis, attention was paid to both manifest content (explicit statements) and latent content (underlying meanings or assumptions) (Mayring, 2015, pp. 369–370)(Schreier, 2012, pp. 32–34). Utilising content analysis in this manner facilitated moving beyond descriptive coding toward an interpretive understanding of stakeholders' perceptions and enactment of LKSG requirements (Mayring, 2015, p. 369). The content analysis yielded core themes and sub-themes structuring the findings of the study, as detailed in the Results section. Prominent themes include power dynamics along the supply chain, transparency, and exclusion. These themes synthesise evidence from value chain mapping, interviews, and documents, constructing a coherent depiction of the case (Mayring, 2015, p. 374). Crucially, qualitative content analysis applied in this context is systematic and transparent, thereby enhancing the credibility of findings through adherence to clearly documented coding and thematising procedures, enabling traceability of interpretative decisions (Mayring, 2015, p. 368; Schreier, 2012, p. 6). This approach to analysis also facilitates a clear linkage back to theoretical underpinnings during the discussion phase of the study (Kaiser, 2014, pp. 145–146).

Researcher Reflexivity and Positionality

Addressing the methodological criticisms of this study necessitates acknowledging the complexities and potential biases introduced by the researcher's position as a European student from a European university conducting research in La Guajira. The dynamics of power and perception inevitably influence the interactions between the researcher and the researched, especially in settings marked by historical inequalities and external exploitations, like those experienced by the Wayúu community. The presence of a foreign researcher might evoke scepticism and distrust, given the region's history with foreign entities, notably El Cerrejón, which might lead to concerns that the research could serve another form of exploitation or benefit external interests at the community's expense.

Given the socio-political sensitivities surrounding mining and human rights, particularly in Colombia, careful attention was paid to the researcher's positionality, addressing potential biases and ethical considerations proactively. Reflexive practice was integrated throughout the research process to ensure the trustworthiness of the study's results. Reflexivity refers to the practice of critically examining how the researcher's own background, assumptions, and presence might influence the research process and outcomes (Berger, 2015, p. 220). As a European researcher examining a Colombian case within the context of German legislation, the researcher's outsider status and cultural background were acknowledged as factors that could potentially influence participant responses and the interpretation of their statements. For instance, a community activist might initially view a foreign researcher with scepticism or assume certain biases. To mitigate such concerns, transparency about research aims and institutional affiliations was maintained from the outset, clearly communicating that the research was independent and academic, not commissioned by any company or governmental entity. Additionally, sensitivity to power dynamics during interviews was consistently upheld, maintaining respect and cultural sensitivity, particularly when interacting with local community members.

Mindfulness of positionality also helped build trust with participants. Berger (Berger, 2015, p. 221) notes that a researcher's characteristics can significantly influence participants' willingness to share information, as respondents may feel more comfortable engaging openly when perceiving the interviewer as empathetic or sympathetic to their situation. In this study, interviews were conducted with empathy and included selective self-disclosures aimed at establishing common ground, for example, mentioning previous experiences or personal motivations related to social justice concerns. Such conscious management of researcher self-presentation facilitated a more comfortable environment for participants, leading some interviewees to disclose sensitive details after assessing researcher reactions, as evidenced by statements like, "You probably know how these things go…", and the revealing of sensitive documents such as complaints regarding human and environmental rights violations. Throughout the research process, reflexive practices involved a continuous review of how the researcher's identities (e.g., nationality, academic background, or personal beliefs related to mining) might influence data collection and analysis. Following each interview, detailed reflexive memos documented researcher impressions, potential influences on the interaction, and any emerging impacts on the interpretation of data. These memos were reviewed regularly to reflect upon potential biases, enabling adjustments to interviewing approaches or interpretative frameworks as necessary (such as refining question phrasing to avoid leading participants or imposing premature interpretations).

Active acknowledgement and critical examination of the researcher's positionality enhances the study's credibility. Reflexivity is broadly recognised as essential for rigour in qualitative research, as it systematically addresses the researcher’s potential influence on data generation and analysis (Berger, 2015, pp. 220–221). Therefore, efforts were made to render the analytic process as transparent as possible, explicitly identifying interpretations influenced by researcher understanding or assumptions and including direct participant quotes to clearly illustrate the evidentiary basis for conclusions drawn. In summary, deliberate attention to building trust, managing researcher positionality, and applying reflexive methodologies throughout the project significantly contributed to the ethical integrity and robustness of the qualitative insights. Each methodological choice—from the mixed-methods design to the application of content analysis and reflexive monitoring—was intentionally selected to ensure that this study of the German energy providers, El Cerrejón and the Wayúu, and the LKSG law provides credible, balanced, and comprehensive insights into the complex case at hand.

Method Criticism

A critical observation regarding the incomplete representation of all stakeholders in the study has to be made. Despite attempts to engage with a broad spectrum of perspectives, no interviews could be secured with representatives from corporate or governmental sectors. This limitation poses a challenge for the research, as not all views and motivations of all parties involved in the issues affecting La Guajira could be captured directly, potentially skewing the representativeness of the study and, therefore, its generalizability.

Finally, it is important to note a specific limitation regarding the documentation of rights violations by El Cerrejón in 2023. While firsthand evidence was presented to the researcher by a Wayúu community representative, the conditions under which this information was shared preclude detailed disclosure in this analysis. The representative (Informant 1), who chose to remain anonymous, explicitly restricted the sharing of the document's contents to prevent identification and mitigate potential negative repercussions associated with its broader dissemination. Consequently, the analysis must navigate the delicate balance of reporting observed issues without specific reference to the confidential document. The documented issues are broadly revealed in the Background Section, but the exact details and instances described in the document cannot be explicitly discussed. This limitation may impact the comprehensiveness and specificity of the critique, but it is necessary to respect the confidentiality and safety of the individuals involved.

Notwithstanding the foregoing caveats and moving from the discussion of the methodologies employed in this study, the forthcoming section will present the findings from the investigation into the value chains leading to El Cerrejón and the various private, public, and social governance actors. This is followed by the examination of the private governance actors' complaint mechanisms, offering insight into their operational effectiveness. The evaluation sheds light on the practical challenges and successes in implementing the mechanisms under the LKSG framework. Based on these findings, the section will conclude with recommendations aimed at enhancing the effectiveness of these mechanisms and suggesting ways to better support the rights and needs of impacted communities.

FINDINGS

Private Governance

In the Theoretical Framework, the categories of actor types directly or indirectly governing the value chain were defined as private, public, and social (Ponte et al., 2019)(Gereffi & Lee, 2016). Here, at the outset, a complication arises, as the private actors, defined as lead firms governing through bargaining power and the establishment and normalisation of (voluntary) standards (institutional power), are not conventionally identified (Dallas et al., 2019). This is because, although they should be easily recognised as simply the German energy producers sourcing coal from El Cerrejón, it is, in reality, unclear who exactly has purchased coal from the mine, as the supply chains are kept highly opaque. Moreover, while exact statistics on the supplier structure of German energy producers may exist, these are subject to nondisclosure, according to Germany's Federal Statistics Office (Statistisches Bundesamt), which states that such official statistical secrecy is regulated under § 16 of the Bundesstatistikgesetz (BStatG) (Statistisches Bundesamt, 2024, § 16 BStatG).

On the flip side, the firms that did not buy coal from the mine are irrelevant, as it would be highly unlikely for people affected by violations of their rights to be using the mechanism of companies not associated with El Cerrejón over the value chain. Not only that, but the firms would not consider any submissions of grievances either. Moreover, considering these in the analysis would yield an eminently predictable negative outcome and possibly skew the results. In this context, it is possible that not all companies involved can be identified due to the challenges associated with tracing opaque supply chains. If this occurs, the analysis will necessarily be limited to the sample of firms that can be identified and examined.

Figure 1 below shows all the remaining coal-powered power plants operated by the major German energy firms EnBW, Uniper, RWE, and STEAG in Germany and the Netherlands in 2023. The sample only includes those in the two countries, although the companies operate further plants outside the EU, such as the UK, Turkey, and Colombia. Power plants marked by a brown symbol belong to STEAG, yellow to EnBW, dark blue to RWE, and turquoise to Uniper (map created using Google Earth, 2025).

Figure 1 Map of remaining coal-powered power plants operated by the major German energy firms in 2023.

Direct inquiries to the major German energy producers did not bring any results. The companies either did not reply or, in the case of EnBW and Uniper, were not willing to provide any exact data on coal supplies for “competitive reasons,” as well as the "complexity of the coal trade," arguing that no law mandates the provision of such information and that the supply chains are very complex (EnBW, personal communication, 2024)(Uniper, personal communication, 2024). Like the German sourcing companies, the German ports were unwilling to provide information on coal shipments from Puerto Bolivar (Hamburger Hafen, personal communication, 2024) (Wilhelmshaven, personal communication, 2024) (Bremerhaven, personal communication, 2024).

The energy providers were only willing to name the countries from which they source hard coal, which is already disclosed in quarterly and yearly financial results sheets, but not, however, the specific mines. Regarding "standards," EnBW, Uniper, and RWE merely referred to the Better Coal Initiative and their LKSG report, which was yet to be published at the time of the inquiry (EnBW, personal communication, 2024)(Uniper, personal communication, 2024)(RWE, personal communication, 2024). When comparing this "no information policy" of

German energy providers to other industrial sectors, it becomes evident how outdated this approach to inquests has become. What is more, as will be shown below, the supply chains of the energy providers are not complex, especially when compared to those in the apparel industry or electronics, for example. They are, however, non-transparent, hidden from the eyes of the public, and deliberately structured ambiguously to obfuscate the relationship these companies have with their suppliers. With a transparent supply chain being an indispensable prerequisite for a credible sustainability policy, refusing to disclose their suppliers and citing "trade secrets" as a reason is simply an attempt to shield this information from the public.

Results from port inquiries

The port authorities of the different ports and their bulk terminals were contacted via Email to inquire about coal shipments originating from Puerto Bolivar in 2023. Information was requested on the total amount (in mT), the number of shipments, and the coal's final destination, i.e. the specific power plants they supplied. In addition, ship-tracking data obtained from the global ship-tracking database of MarineTracker.com was used to retrace the route of specific bulk-carrying vessels originating from Puerto Bolivar. However, this technique could not be utilised in full, despite its exact results, due to the financial restrictions of this study. It was thus only applied in the cases where no results could be acquired from the direct inquiries, namely the ports of Wilhelmshaven, Hamburg, and Bremen. This approach, therefore, served as a backup method. For further research on this subject, however, this strategy has the potential to return highly detailed results, as it is not limited to overseas traffic but includes inland transport as well. It can, therefore, reproduce the precise path of any shipment from its origin to its terminal destination. Below are the results for the different ports.

Rotterdam

The inquiries yielded seven coal shipments from Puerto Bolivar to Rotterdam, totalling 1,15 mT. From this shipment, 0,315 mT were supplied to the Port's adjacent coal power plant in Maasvlaakte operated by Uniper. Another 0,700 mT were forwarded to the power plants in Germany's North Rhine-Westphalia (NRW) region, adjacent to the Netherlands, as well as those in the Rhine region further South. The exact power plants supplied through the port of Rotterdam were Walsum (STEAG), Herne (STEAG), Datteln (Uniper), Scholven (Uniper), Staudinger (Uniper), Heilbronn (EnBW), Altbach (EnBW). However, the exact amount going to each power plant was neither disclosed by the port authorities, the Rotterdam bulk terminal, nor any of the implicated power plants themselves (Rotterdam Port Authority, personal communication, 2024).

The port authorities of Rotterdam also disclosed a common process by which coal is purchased by some major buyers, i.e. energy-producing multinationals: Once the coal arrives at Puerto Bolivar, a shipping company officially purchases it, loads it, and sets off across the Atlantic toward Europe. There, the company signals its readiness to deliver to buyers like Uniper. The freighters sometimes anchor off the European coast for a few days, awaiting a "go" to a specific port connected to particular power plants. This was described as a clever system of loaded "standby coal freighters on the Atlantic" and could be corroborated by vessel-tracking data (Rotterdam Port Authority, personal communication, 2024). From there, the coal would be dispatched to a power plant "just in time." Only when the freighter, already waiting on the Atlantic, is scheduled for dispatch does the actual trade transaction occur, further obscuring the coal's origin. Unfortunately, the exact shipping companies were not divulged (Rotterdam Port Authority, personal communication, 2024).

Amsterdam

Five coal-transporting bulk carriers from Puerto Bolivar arrived at the port of Amsterdam, totalling 705 mT of Colombian hard coal. The Amsterdam bulk terminal disclosed the carbon shipments' follow-up destinations as the coal power plants in North Rhine-Westphalia and along the Rhine corridor (e.g, Staudinger and the power plants in the Saarland region: Völklingen Fenne, Weiher, Bexbach, and Staudinger, all of which are owned and operated by Steag (Amsterdam Port Authority, personal communication, 2024).

Antwerpen

An inquiry at the port authorities of the port of Antwerp resulted in information about two shipments from Puerto Bolivar totalling 240 mT. These were forwarded to some of the aforementioned coal power plants in the Rhineland region operated by EnBW. It was, however, not specified to which power plant the shipments were forwarded (Antwerp Port Authority, personal communication, 2024).

Wilhelmshaven

According to ship-tracking data, at least 250 mT came through the port of Wilhelmshaven on at least two bulk carriers (MarineTracker, 2024). Unfortunately, neither Wilhelmshaven's port authorities nor its bulk terminal were willing to provide information on coal supplies, so the data is restricted to ship-tracking statistics (Wilhelmshaven Port Authority, personal communication, 2024). The shipments are likely to have been forwarded to the adjacent, Uniper-operated coal power plant.

Hamburg

Unfortunately, the port of Hamburg was unwilling to share any information or data on shipments from Puerto Bolivar (Hamburg Port Authority, personal communication, 2024).

Therefore, as in the case of Wilhelmshaven, historical ship-tracking data from MarineTracking's AIS vessel-tracking database was drawn upon. At least two ships originating from Puerto Bolivar berthed in Hamburg in 2023, carrying at least 204 mT of hard coal. Like with Wilhelmshaven, more bulk carriers may have arrived at the port in 2023 (MarineTracker, 2024). However, since vessel tracking services are expensive and the financial means for this investigation are conversely limited, the data request was restricted to two ships. These coal shipments most likely supplied the nearby power plants owned and operated by the city of Hamburg (MarineTracker, 2024).

Bremen

Since the initial inquiry was met with no response, Ship-tracking data was also turned toward here. This yielded two shipments arriving at Bremerhaven and transiting toward the Heyden power plant operated by Uniper, further south along the river. The total amount carried was 108 mT of hard coal (MarineTracker, 2024).

All in all, the investigation has shown that, in 2023, at least 2.314 mT of hard coal were shipped on a minimum of 20 ships from Puerto Bolivar, El Cerrejón's private port, to at least five European ports, namely Rotterdam, Amsterdam, Antwerp, Wilhelmshaven, and Hamburg. The coal supplied the coal power plants of the following German firms:

- Uniper: Maasvlaakte, Datteln, Scholven, Heyden, Wilhelmsaven.
- EnBW: Heilbronn 7, Altbach, Karlsruhe RDK 8.
- STEAG: Walsum, Herne, Völklingen Fenne, Bexbach, Weiher 3, Bergkamen.

The three aforelisted firms are thereby relevant for the continuation of the study. This is because, as previously expounded, clarity over who acquired coal from El Cerrejón in 2023 means clarity over whose grievance mechanism is genuinely relevant. RWE is thus not part of the relevant sample, as no hard coal shipments could be traced to any of its facilities.

Furthermore, it was revealed that the coal supply chains of German energy producers are not the highly complex structures the companies are trying to characterise. On the contrary, they entail only three separate main operative actors: the port of origin, the intermediary port connecting international with inland water, and the terminus, i.e., the respective power plants, which are often in the vicinity of the ports. There are also intermediary actors, mostly handling logistics. Here is a summary of all actors found in the value chain:

Carbones del Cerrejón / Glencore: Function: Extract coal; initial seller. Value: Receives FOB payment for coal, which covers extraction costs and profit. Material: Provides the raw material (coal) into the chain.

Export Port Operator (Cerrejón Puerto Bolívar): Function: Logistics, load coal to vessels. Value: May receive port fees; ensures efficient throughput. Material: Facilitates transfer from land (train) to sea (ship). (Puerto Bolívar handles all Cerrejón exports; ~50% of those exports go to Europe.)

FOB Buyer / Trader: This could be an independent commodity trading company or the utility's own trading subsidiary (e.g., Uniper Global Commodities SE for Uniper). Function: Buys coal at origin to arrange delivery where needed. Value: Takes on price and logistics risk; hopes to profit by selling at a higher price to the end-user or by fulfilling a utility's fuel needs economically. Material: Owns the coal during the critical transport stage, decides where it goes. (Uniper's trading arm, for example, engages in global coal and freight markets, playing exactly this intermediary role for the company's plants.)

Shipping Company (Bulk Carrier Owner/Operator): Function: Physically transports coal overseas. Value: Earns freight rates; adds value by making globally mined coal available in distant markets. Material: Moves the coal across the ocean. If acting also as a trader, it may influence where to drop it. The "standby" strategy indicates these actors sometimes serve as floating storage, effectively becoming a mobile node in the chain until the market or buyer signals where to deliver.

Transhipment Hub (ARA Terminal Operators): Function: (If utilised) Receive large shipments, store and redistribute. Value: Earn storage and handling fees; enable commodity trading (timing and allocation benefits). Material: Hold coal inventories and forward them in smaller lots. This node is optional but common for distributing Colombian coal to inland Europe.

Import Port Operator (Hamburg, Wilhelmshaven, etc.): Function: Unload ocean vessels, transfer to inland transport. Value: Earn handling fees; provide infrastructure linking sea to land. Material: Take coal off ships and dispatch to its final leg. (Wilhelmshaven's deepwater port, for example, has been central to German coal imports, directly feeding Uniper's plant and others via rail.)

Inland Transport Providers (Rail/Barge Companies): Function: Move coal from port or hub to power plant. Value: Earn freight fees; ensure timely delivery. Material: Carry coal in bulk over land to where it's consumed. (German plants often rely on dedicated rail lines or rivers like the Rhine for coal delivery.)

Energy Producer / Power Utility (Uniper, STEAG, EnBW): Function: Final consumer; burns coal to generate electricity (and possibly heat). Value: Realises the coal's energy value by selling electricity; this revenue pays all upstream costs and ideally yields profit. Also bears the costs of emissions and compliance. Material: Consumes coal; outputs energy.

Figure 2 below depicts the path of coal from Puerto Bolivar to the power plants operated by the German firms in Germany and the Netherlands. It shows how international bulk carriers (green symbol) arrive at the ARA and German ports (red symbol), often waiting close by before receiving the call to approach a specific port, as described earlier. The map then shows the inland marine path bulk carriers take from the ports to the power plants in the different regions. The power plants depicted by yellow symbols are the ones operated by EnbW mentioned above. The ones marked in brown belong to STEAG, and the blue ones to Uniper.

Figure 2 Path of hard coal from El Cerrejón to the power plants of EnBW, Uniper, and STEAG (map created by the author using Google Earth, 2025).

A major issue that becomes unambiguous is not one of chain complexity but transparency. This is corroborated by the obfuscation attempts of the energy producers and the German ports, who are unwilling to provide any relevant data. Additionally, as mentioned before, German law, specifically § 16 of the (BStatG), prevents official bodies from releasing exact sourcing statistics on German firms, that is, if they even exist (Statistisches Bundesamt, 2024, § 16 BStatG). This constitutes a problem, as it becomes hardly possible for any third party to audit the LKSG sustainability reports of the firms because they lack the basic requirement of publicly disclosing precisely who they sourced from and through whom. This creates a significant barrier for the greater public, which will only see reports of abuses in the production sites on one hand and the clean reports by the German firms on the other, without the link between the two. Moreover, through the aforementioned obfuscating coal trading process ensuing while the transporting vessels are on international waters, the German firms can easily claim nescience or ignorance over the raw materials' origins. This sourcing strategy allows them to avoid accountability and circumvent the LKSG outright.

Here, the question arises of whether the intermediary nodes, the international ports, act as direct suppliers to the German firms, thus ‘relegating’ El Cerrejón to the status of an indirect supplier. Recalling the LKSG’s exposition in the Background Section, a supplier is considered a direct supplier under the LKSG if it has an immediate, contractual business relationship with the company, providing goods or services directly to it (§ 2, para 7 LKSG). However, none of the German energy producers in this study have contracts with El Cerrejón. This raises two key considerations:

- Who is the contractual partner? If the German company purchases coal directly from El Cerrejón and organises delivery to a port and then to a power plant, El Cerrejón could be considered a direct supplier.
- Who arranges the intermediate steps? If the coal reaches the German power plant via an intermediary (e.g., a logistics or trading company), and the German company only has a contractual relationship with that intermediary, El Cerrejón would be an indirect supplier (§ 2 para. 8 LKSG). However, the company's knowledge of the coal's origin remains relevant. The LKSG considers the company’s awareness and influence over potential human rights or environmental risks with indirect suppliers (§ 9 para. 3 LKSG).

A recurring point is that power providers purchase their hard coal through intermediaries and, therefore, do not know its precise origin (GIZ)(AHK). The informants from GIZ and AHK further elucidate that the hard coal trading market is strongly concentrated, with only a handful of influential participants dominating the international coal supply. In other words, relatively few traders control most of the coal flow, which gives them significant market power and oversight of origins (GIZ)(AHK). Trading with these external, intermediate traders goes through the companies’ specialised in-house trading arms, which handle coal purchases, with EnBW, for example, having its own trading division (EnBW Trading) and the other firms having similar units (EnBW, 2024)(Uniper, 2024)(STEAG, 2024)(GIZ)(AHK). In many cases, there are even direct supply contracts between the utility’s trading subsidiary and mining companies, indicating a close, first-tier link to the coal’s origin (GIZ)(AHK). Interestingly, as expounded by the informants from GIZ and AHK, the in-house traders of the German firms must know the quality characteristics of the coal they buy from outside traders, and, because coal quality is specific to every mine, they inherently know the coal’s origin (GIZ)(AHK). Simply saying ‘I don’t know’ is becoming increasingly difficult. In the legal sphere, however, it remains a different story.

Notwithstanding, regardless of the mine’s status as a direct or indirect supplier, the German firms still bear a risk-mitigating responsibility, given the high potential risk, especially in light of the rather vast and concrete publicly available historical data on human rights violations by the mine (§ 9 para. 3 LKSG). Since the German companies are aware of the supply chain and the coal's source, the LKSG would require the company to conduct a risk assessment for this indirect supplier, even without a direct contractual relationship, and implement measures regarding the ongoing violations.

The German Energy Firms

Derived from the preceding determination of the 'what,' that is, what the relevant German companies to this study are, is the question of the 'who.' i.e., who these firms are. The following paragraphs provide a brief overview of the analysis results of the private governance actors, including their sustainability policies and complaint mechanisms. This is followed by an assessment of the firms' normalisation practices regarding Human Rights and environmental codes in their value chains as well as their agency, relating back to the first question reiterated at the beginning of this section.

Uniper

Uniper SE, headquartered in Düsseldorf, Germany, was formed in 2016 following the separation of E.ON's fossil fuel assets into a distinct entity (Uniper SE, 2023a, p. 5). In subsequent years, Finland's Fortum Corporation acquired a large stake, reaching about 80% ownership by mid-2022 (Knolle & Kauranen, 2022, para. 4). However, amid the European energy crisis, Uniper was nationalised in late 2022 with the German government injecting €13.5 billion and acquiring Fortum's shares, resulting in roughly a 99% ownership stake in Uniper (Uniper SE, 2023a, p. 5). As of 2023, the Federal Republic of Germany holds 99.12% of Uniper's shares, effectively making it a state-owned enterprise (Uniper SE, 2023a, p. 15). This reveals a clear dichotomy within the state, where, on the one hand, it seeks to actively promote sustainable value chains and accountability while just as actively engaging in the exact activities it tries to curb on the other.

The German government, however, has committed to reducing its stake in Uniper to a maximum of 25% plus one share by 2028, as agreed with the European Commission (European Commission, 2022, para. 1)(Uniper SE, 2023a, p. 15). This means that the company's re-privatisation is underway through the sale of shares via the equity market, reintroducing a diverse array of institutional investors. These will come with potentially varying priorities concerning short-term returns and long-term Environmental, Social, and Governance (ESG) goals.

Uniper is a major European power producer, with 22.4 GW of installed capacity in Europe by the end of 2023, including about 6.2 GW from coal-fired power plants (Uniper SE, 2023b, p. 22). The company's power generation in 2023 was 52.7 TWh, a 13% decrease from the prior year (Enerdata, 2024, para. 2). Notably, coal-fired electricity accounted for approximately 24% of Uniper's generation in 2023, or about 12.2 TWh (Uniper SE, 2023b, p. 22). This represented a decrease from 2022 when coal output had risen due to gas supply shortfalls, with Uniper's coal generation in 2022 of approximately 17.3 TWh (Enerdata, 2024, para. 3). With about 6 GW of coal capacity, Uniper remains one of Germany's largest coal power operators (Enerdata, 2024, para. 2). For context, the company's European fleet also includes ~8.5 GW of gas-fired capacity and 3.6 GW of hydro, with the remainder in biomass, oil, and nuclear plants (Uniper SE, 2023b, p. 23).

In Germany, Uniper operated five hard coal-fired power plants in 2023: Datteln 4, Heyden 4, Staudinger 5, Scholven B, and Scholven C, with a combined installed capacity of approximately 3,139 MW (Uniper SE, 2023b, p. 23). The Heyden 4 plant in North Rhine-Westphalia was officially decommissioned in 2021. However, after Russia's gas supply cuts, it was brought back into operation in August 2022 under a government emergency program to replace gas in power generation (Modern Power Systems, 2023, para. 2). Its operation, initially allowed until April 2023, was later extended to March 31, 2024, to strengthen winter supply security (Modern Power Systems, 2023, para. 2). Another German plant, Staudinger 5 (located near Hanau, Hesse), was slated to cease commercial operation by mid-2023 but was also kept on the market under crisis measures instead of retiring on schedule (Modern Power Systems, 2023, para. 3).

In the Netherlands, Uniper operates the Maasvlakte Power Plant 3 (MPP3), also a hard coal-fired power plant, at the Port of Rotterdam. While it only began operation in 2016 with an approximate capacity of 1,100 MW, following Dutch climate law, it faces a mandated shutdown by 2029 (Uniper SE, 2023b, p. 24). Maasvlakte 3 is designed to also co-fire biomass, and Uniper has implemented equipment to allow a portion of its fuel to be sustainable biomass instead of coal (Thonney, 2019, para. 4). As exposed earlier, the investigation results on shipments from El Cerrejón have shown that this power plant has received coal directly from the mine through the port of Rotterdam.

Commitment to Human Rights and Environmental Sustainability

Uniper pledged to achieve carbon neutrality by 2040, making significant investments in renewable energy and low-carbon technologies to address its environmental impact. However, Uniper's strategy has faced sharp criticism from environmental observers, who argue that its actions do not match its climate promises yet. For example, at Uniper's 2024 Annual General Meeting, activists pointed out that 84% of Uniper's electricity output in 2023 still came from fossil fuels (of which 24% hard-coal) or nuclear, indicating only a small green shift so far (Dachverband der Kritischen Aktionärinnen, 2024, para. 2). A representative of the NGO Ugewald described Uniper's new sustainability plan as "at best, a thin green coat of paint" over its predominantly grey (fossil-based) portfolio (Urgewald, 2023, para. 4). Furthermore, a coalition of human rights organizations has criticized Uniper's focus on a "fair energy transition" as greenwashing, given the ongoing social and environmental harm tied to its coal supply chain (Dachverband der Kritischen Aktionärinnen, 2024, para. 4). At the 2024 AGM, groups including Free Bruno, and the Dachverband der Kritischen Aktionärinnen denounced Uniper's increased use of Colombian coal and urged the company to enact a truly "just transition" for communities at mining sites (Dachverband der Kritischen Aktionärinnen, 2024, para. 5). They called on Uniper's management to ensure that regions like La Guajira are not left to bear the lasting local environmental and health impacts of coal mining for German power needs (Dachverband der Kritischen Aktionärinnen, 2024, para. 6). These critics argue that without concrete action, such as expediting coal plant closures, investing more in renewables, and remedying mining-related injustices, Uniper's 2040 carbon-neutral pledge will ring hollow (Dachverband der Kritischen Aktionärinnen, 2024, para. 6)(Urgewald, 2023, para. 5)

Furthermore, while Uniper's reports highlight its grassroots efforts, such as river cleanups, these activities appear tokenistic in comparison to the scale of its environmental footprint and social impact (Uniper SE, 2023a, p. 38). Local engagements distract from larger systemic issues, such as the displacement of communities near coal facilities or the environmental degradation caused by its operations.

Risk Assessment and Supplier Due Diligence

Uniper has implemented an ESG risk management process to identify and address human rights and environmental risks in its operations and supply chain in line with LKSG obligations (Uniper, 2024, pp. 212–213). Risk identification is conducted in two main steps. First, Uniper screens all its business units and suppliers by sector and geography, mapping them against sector-specific and country-specific risk indices. This initial assessment leverages external data sources (e.g., country risk indices, databases of ESG risks) to flag inherent risks, such as forced labour, child labour, inadequate safety, or environmental harm, in particular regions or industries. Second, Uniper evaluates each risk more granularly by considering the probability of occurrence, the extent/scope of impact (e.g. how many people could be affected), the severity of harm, and the reversibility of the potential violation. In other words, Uniper's risk weighting incorporates factors of scale and irremediability (to gauge severity) and likelihood, as well as the company's leverage or involvement. Information gathered through Uniper's grievance channels also factors into this assessment. After this analysis, existing preventive measures are reviewed to see if they mitigate the risk, and risks are then prioritised for action (Uniper, 2024, p. 213).

Before onboarding new suppliers, especially those with significant contract value or in high-risk countries, Uniper conducts an ESG due diligence check (termed the "Supplier ESG Due

Diligence Process"), requiring suppliers to accept Uniper's Supplier Code of Conduct and evaluating them for human rights criteria (Uniper, 2024, p. 214). The company also indicated that for certain high-risk supply chains (e.g. coal sourcing), it works with suppliers on continuous improvement plans as part of its due diligence. Overall, Uniper's risk assessment methodology aligns with LKSG (Uniper, 2024, p. 214).

Grievance Mechanism and Whistleblower Channels

Uniper's compliance system provides both internal and external channels for raising complaints, consistent with LKSG §8 and whistleblower protection laws (Uniper, 2024, pp. 214–215). Internally, Uniper has a whistleblowing procedure and encourages employees or business partners to report any misconduct or supply chain violations. Reports can be submitted confidentially via an internal hotline or web portal managed by Uniper's Compliance team or a dedicated email inbox. It has also established an external whistleblower hotline operated by an outside law firm, which functions as an ombudsman. According to Uniper's Supplier Code of Conduct, any concerns about violations or risks may be directed to either the internal address or the independent hotline, and the relevant procedure is outlined on Uniper's website. These channels are available to all stakeholders, including employees, contractors, and workers in Uniper's supply chain. They also support multiple languages, including Spanish (Uniper, 2023, p. 2).

All reports, whether internal or via the external channel, are handled by a dedicated whistleblowing team within Uniper's compliance department, and investigations follow a defined process documented in Uniper's internal directive ("Business Directive Whistleblowing Procedure") (Uniper, 2024, p. 215). The company's annual report confirms that both employees and external third parties have the opportunity to report misconduct through these whistleblowing channels.

STEAG

STEAG GmbH, headquartered in Essen, Germany, originated as the Steinkohlen-Elektrizität AG ("Anthracite/Hard Coal Electricity Company") established in 1937 (STEAG GmbH, 2023, p. 6). STEAG primarily focuses on coal-fired power generation, operating approximately 4.1 gigawatts (GW) of coal-fired capacity domestically and internationally in 2023 (STEAG GmbH, 2023, p. 6). In Germany, its six coal plants include Duisburg-Walsum, Herne, Bergkamen, Völklingen-Fenne, Weiher, and Bexbach (STEAG GmbH, 2023, p. 8). Abroad, STEAG operates coal assets in Turkey, the Philippines, and notably, the Termopaipa plant near Paipa, Colombia (STEAG GmbH, 2023, p. 17). The power plant is considered crucial during dry seasons when Colombian hydropower capacity declines (Quiroga Rubio, 2024, p. 347). However, intensified climate change has exacerbated these dry periods, making water an increasingly scarce resource in Colombia, ironically amplifying reliance on coal power and worsening local environmental degradation (Contraloría General de Boyacá, 2023, p. 12)(Misereor, 2022, p. 5).

In 2023, coal accounted for about 60% of STEAG's total energy output, the highest among comparable German energy providers (STEAG GmbH, 2023, p. 10). Some German plants, like Bexbach and Weiher, operated under the grid reserve due to Germany's Ersatzkraftwerkebereithaltungsgesetz (EKBG), activated only during peak demands or shortages (Bundesnetzagentur, 2023, p. 4). In December 2023, STEAG was acquired by Asterion Industrial Partners, a Madrid-based investment firm. This sale, worth €2.6 billion, aimed at alleviating financial pressures on municipal stakeholders but raised concerns about potential impacts on STEAG's commitment to decarbonisation and sustainability (Handelsblatt, 2023, p. 1). The preceding owning municipal consortium, Kommunale Beteiligungsgesellschaft GmbH & Co. KG (KSBG), consisted of six municipal utilities from the Ruhr region in Germany. The member utilities of KSBG were Stadtwerke Duisburg AG, Stadtwerke Bochum Holding GmbH, Dortmunder Stadtwerke AG, Stadtwerke Essen AG, Stadtwerke Dinslaken GmbH, and Energieversorgung Oberhausen AG (Stadtwerke Konsortium Rhein-Ruhr, 2023, p. 1). This structure was established in 2011 to maintain local control over energy resources and ensure regional energy security (STEAG GmbH, 2023, p. 9). Following the previous findings, this implied the purchase of "bloodcoal" ("Blutkohle") from El Cerrejón (Henneberger, 2022, p. 8). Moreover, with Dortmund, Bochum, and Dinslaken recognised as "Fair Trade Towns" (Fairtrade Deutschland, 2023, p. 1), it would be sensible to assume that "fair procurement" would be taken seriously. Ironically, it appears it is not.

Commitment to Human Rights and Environmental Sustainability

STEAG has set a target to achieve climate neutrality by 2040, five years ahead of the legally mandated deadline (STEAG GmbH, 2023, p. 12). Notwithstanding, the lack of detailed interim targets and clear strategies, especially regarding specific phase-out plans for the closure of coal-fired power plants, leads to scepticism about its feasibility (IEEFA, 2023, p. 58). Without a transparent roadmap, stakeholders may question the company's ability to meet its climate objectives.

Concerning the company's CSR initiatives, publicly available information is scarce. Nevertheless, findings show that STEAG's subsidiary, STEAG Energy Services India, engages in CSR activities focusing on the environment, society, workplace, and market (STEAG India, 2023, p. 3). The impact, however, is not clearly communicated, and the scale of these efforts is limited compared to the company's overall operations. This lack of comprehensive reporting has made it difficult to evaluate the effectiveness and reach of these programs.

Regarding the firm's direct presence in Colombia, from a CSR perspective, the Termopaipa case highlights STEAG's challenges in balancing energy production with community well-being (Corpoboyacá, 2023, p. 4). In March 2023, the regional environmental agency Corpoboyacá issued an alert due to alarming pollution readings of a mobile air monitor in Paipa recording SO_2 (sulfur dioxide) levels of 700 µg/m³, approximately seven times the legal hourly limit, during an incident on February 28, 2023 (Corpoboyacá, 2023, p. 4). Corpoboyacá attributed this pollution to coal burning by the Paipa power stations (Gensa's units and STEAG's Electrosochagota plant), urging immediate protective measures (Corpoboyacá, 2023, pp. 4-5). In this context, Paipa's mayor noted that residents have been suffering from coal-related air pollution issues, such as coal ash deposits and respiratory problems, since the 1990s (Alcaldía de Paipa, 2023, p. 2). He also requested a temporary shutdown of both Gensa's and Electrosochagota's generation activities until the problem was thoroughly investigated, highlighting the severity of local health concerns (Alcaldía de Paipa, 2023, p. 2).

While STEAG has engaged in community dialogue and maintained that it meets legal environmental standards, local stakeholders have demanded greater accountability, effectively pushing the company toward better environmental stewardship (Alcaldía de Paipa, 2022, p. 1). This also includes transparency, with available primary sources, including local oversight reports, suggesting that STEAG's transparency in Colombia has been limited, typically occurring as a reaction to public pressure rather than through proactive CSR reporting (Corpoboyacá, 2023, pp. 4-5). No formal CSR report has been identified for Termopaipa operations; transparency has primarily occurred through community meetings and regulatory compliance reports.

In the same vein, STEAG has not published an LKSG report for 2023, although it appears to fulfil all requirements for subjection under the due diligence law. However, STEAG underwent a corporate restructuring in 2022, resulting in the creation of two primary subsidiaries: Iqony GmbH, focusing on renewable energy, hydrogen, and innovative solutions, and STEAG Power GmbH, which oversees traditional power generation and coal-related assets, both under the umbrella of STEAG GmbH as a holding company (STEAG GmbH, 2023, pp. 43-47). By the end of 2023, Iqony had approximately 2,660 employees, and STEAG Power had about 2,829 employees (STEAG GmbH, 2023, p. 44), with each subsidiary individually falling below the legal reporting threshold of 3,000.

Risk Assessment and Supplier Due Diligence

To evaluate and prioritise these risks, STEAG rolled out an IT-based risk assessment tool (STEAG, 2023, p. 5). This suggests STEAG will leverage software (potentially using external risk databases or platforms akin to RepRisk/EcoVadis) to automate the analysis of country and sector risks for suppliers. Indeed, STEAG states that it regularly updates its risk analysis and that results are fed into its decision-making and risk management system on an ongoing basis (STEAG, 2023, p. 5).

Regarding supplier evaluation, STEAG assures that every new or existing supplier undergoes an initial and periodic compliance screening, which entails media monitoring for adverse reports and checks against sanctions lists. Should any red flags or specific issues arise, it conducts deeper individual investigations with external expert support and third-party data sources (for example, negative news or NGO reports about a supplier's operations) to catch human rights or compliance risks (STEAG, 2023, p. 5). STEAG also maintains that it requires its suppliers to adhere to a Supplier Code of Conduct, and promotes comprehensive training programs to sensitise employees and suppliers to due diligence expectations. Should it gain substantiated knowledge of a possible violation by a supplier, a special ("anlassbezogene") risk analysis will be triggered, along with appropriate preventive or corrective measures. This complies with LKSG §5 (risk analysis) by covering both immediate suppliers and, when necessary, indirect suppliers, with risk evaluation criteria being guided by the concept of severity and likelihood (LKSG, 2021).

Grievance Mechanism and Whistleblower Channels

STEAG's grievance mechanism was established to meet LKSG §8 requirements and is open to all stakeholders potentially affected by STEAG's business activities. This includes STEAG's own employees, employees of direct and indirect suppliers, people living near STEAG's power plants, and other individuals who might be impacted by STEAG's and its suppliers' operations. For complaints, STEAG uses a central email-based channel, where stakeholders can submit a report (with or without disclosing their name) by email to STEAG's Compliance department. The company has publicly posted this contact on its website and policy statements, and provides information about the complaints process in various languages, including Spanish. Filing a complaint is free of charge, and the company is considering additional channels, such as a specific IT platform or hotline, to enhance accessibility (STEAG, 2023, p. 5). Additionally, STEAG emphasises its commitment to maintaining open communication with NGOs and civil society groups, with this formal complaint channel designed to complement those informal communication routes (STEAG, 2023, p. 5).

Upon receiving a complaint (via the designated email or future web portal), STEAG acknowledges receipt to the whistleblower without undue delay, with a confirmation of receipt provided immediately or at least within seven days of receiving the report, fulfilling a key requirement of the EU Whistleblower Directive and the German Whistleblower Protection Act (Hinweisgeberschutzgesetz) (STEAG, 2024, p. 5). The complaint is then documented and assessed for validity and relevance under the LKSG's scope. If the report contains clear and credible information indicating a potential human rights or environmental risk or violation in STEAG's own operations or supply chain, it is deemed admissible, and an investigation is initiated. STEAG's policy states that each case be investigated diligently and objectively ("sorgfältig und möglichst vertraulich") to determine the facts. The responsible compliance investigator will gather information, which may include confidential interviews with witnesses or review of documents, and involve the pertinent business departments in resolving the issue (STEAG, 2024, p. 6).

If an investigation confirms that a violation or serious risk exists, STEAG states it will implement appropriate remedial and preventive measures. These actions may include collaborating with suppliers to halt the misconduct, providing remedies or compensation to affected individuals, or, in severe cases, terminating the business relationship. Preventive strategies are also said to have been established to avert recurrence, and all outcomes are claimed to be thoroughly documented. STEAG has stated to have formalised this comprehensive process in its publicly accessible procedure, for more transparency and accountability (STEAG, 2024, p. 6). By adhering to these steps, STEAG's system aligns with the requirements of the 'Hinweisgeberschutzgesetz'.

EnBW

Established in 1997 through the merger of Badenwerk AG and Energieversorgung Schwaben AG, EnBW has become the third-largest energy company in Germany. EnBW, too, is majority publicly owned by the state of Baden-Württemberg and a consortium of municipalities (OEW, Zweckverband Oberschwäbische Elektrizitätswerke), each of which indirectly holds 45.5% of EnBW's shares (EnBW, 2023b, p. 130). An additional ~4% is held by other municipal associations, leaving only a small free float (under 0.5%) (EnBW, 2023b, p. 130). Like Uniper and STEAG, the dual nature of the state, reflected in its nuclear public components, becomes evident, promoting greater corporate accountability and enforcing the LKSG on one hand while holding nearly complete ownership of a company whose practices conflict with the former.

Coal power has historically been a significant part of EnBW's generation portfolio, though it is now declining. EnBW operates several hard coal-fired power plants, chiefly at Heilbronn (1,010 MW), Altbach/Deizisau (1,200 MW), and Karlsruhe (Rheinhafen-Dampfkraftwerk, “RDK”) (1,815 MW) (EnBW, 2023b, pp. 66–67). Combined, EnBW’s hard coal fleet is roughly in the 3.5–4.3 GW range, accounting for approximately 36% of its total energy mix, while its hard coal-powered capacity represented just 8% of total capacity (EnBW ESG Factbook, 2023) (EnBW, 2023c, p.66).

Commitment to Human Rights and Environmental Sustainability

In March 2023, EnBW’s management ambitiously announced an accelerated timeline to exit coal power by 2028, moving up from a previous 2035 goal (EnBW, 2023b, p. 25). EnBW’s 2023 Annual Report affirms the plan “to phase out coal by 2028” assuming sufficient expansion of renewables and grids (EnBW, 2023b, p. 73). This voluntary commitment beats Germany’s national coal phase-out deadline of 2038 by a decade (Steitz & Käckenhoff, 2023). EnBW has begun “fuel switch” projects to replace coal plants with lower-carbon generation. For example, it is constructing new gas-fired (hydrogen-ready) combined heat and power plants at the coal power sites in Heilbronn, Altbach/Deizisau, and Stuttgart-Münster by 2026 (EnBW, 2023b, pp. 69–70). The remaining ~2 GW of EnBW’s coal capacity is slated for decommissioning by 2028 (EnBW, 2023b, p. 25).

EnBW has also set and validated climate targets under the Science-Based Targets Initiative (SBTi). In early 2023, EnBW’s greenhouse gas reduction goals (covering Scopes 1–3) were officially certified by the SBTi as consistent with the Paris Agreement’s 1.5 °C trajectory (World Benchmarking Alliance, 2023). The company aims to cut its CO_2 emissions intensity by 87.4% by 2035 compared to 2018, through measures such as phasing out coal by 2028 and converting gas plants to hydrogen by 2035 (EnBW, 2023b, pp. 70–71).

What is more, EnBW is a founding member of Econsense, and the Forum for Sustainable Development of German Business, an initiative started by the BDI in 2000 (EnBW, 2023b, p. 97). EnBW is also a signatory of the UN Global Compact since 2010, committing to its ten principles on human rights, labour, environment, and anti-corruption (EnBW, 2023b, p. 97). The company publishes an annual Global Compact Communication on Progress, integrated into its sustainability reporting (EnBW, 2023b, p. 97). Additionally, EnBW supports the UN Sustainable Development Goals (SDGs) and has an internal “EnBW Sustainability Agenda” covering climate neutrality, infrastructure transition, biodiversity, corporate culture, and human rights protections (EnBW, 2023b, p. 98). For governance, EnBW has a Board-level Sustainability Committee and a Human Rights Steering Committee to oversee these commitments (EnBW, 2023b, p. 98). EnBW’s human rights approach is articulated in a public “Declaration of Human Rights” and a Supplier Code of Conduct, aligned with the UN Guiding Principles on Business and Human Rights (EnBW, 2023b, p. 98).

Another noteworthy Initiative EnBW integrated is Bettercoal, which intersects with El Cerrejón, which is also part of the initiative, along with Uniper. Bettercoal has a dedicated program known as the Colombia Working Group (CWG), which EnBW is a part of. It focuses on sustainability challenges within the Colombian coal sector, emphasising ongoing improvement and stakeholder involvement (Bettercoal, 2019, p. 4). The following brief results of an investigation into the initiative offer important viewpoints to consider about its effectiveness and impact.

Bettercoal

Bettercoal is a global industry-led initiative launched in 2012 by major European coal buyers to promote "continuous improvement" in coal mining practices (Bettercoal, 2013, p. 2). The founding members included several large utilities and energy companies: RWE, E.ON (of which Uniper is a spin-off), Vattenfall, EDF, GDF Suez (now Engie), Enel, and DONG Energy, which together announced Bettercoal as a shared effort to ensure the coal they source is extracted responsibly (Bettercoal, 2013, p. 3). Bettercoal is a voluntary CSR initiative specifically focused on the coal supply chain, with the official goal being to improve sustainability and ethical practices. Bettercoal appeared to provide a platform for the energy sector to collaborate and promote responsible coal mining practices focused on human rights, labour conditions, community impacts, and environmental sustainability.

A central aspect of this initiative is its assessment program. Mining companies and their operations are evaluated against the Bettercoal Code of Conduct. The assessment carried out through third-party audits covers areas such as labour rights, community engagement, environmental management, and governance (Bettercoal, 2019, p. 3). However, the Bettercoal Code's language has been criticised as vague, using broad aspirations rather than hard requirements. For example, it says "Companies shall adopt and implement appropriate policies, systems, procedures, and controls…" and "shall integrate practices that protect biodiversity and ecosystem services…", without specifying measurable standards (Bettercoal, 2019, p. 3). A report by the European Coalition for Corporate Justice (ECCJ) notes that many industry schemes, including Bettercoal, use ambiguous language in their standards, which can lead to inconsistent application and a lack of accountability (ECCJ, 2022, p. 14).

Bettercoal's assessment reports state that they aim to provide transparency regarding the social and ecological impacts of the practices of coal suppliers. However, the detailed findings of these assessments are not made publicly available, limiting the ability of stakeholders, such as local communities, civil society organisations, and the broader public, to scrutinise their actual impact. In other words, the lack of transparency makes it difficult to assess whether the initiative is truly improving conditions in and around coal mines such as El Cerrejón. The public reports are summaries (typically ~10 pages) that omit many details from the full audits (ResponsibleSteel, 2022, p. 8). In the Cerrejón 2018 assessment, for example, NGOs pointed out that certain serious issues were not mentioned in the public summary, notably, the controversial plan to divert a river (the Ranchería River) to expand the mine was absent from Bettercoal's report.

A coalition of NGOs in 2019 issued a statement (via a German media outlet) criticising Bettercoal's reporting on Cerrejón, noting that compliance with the standards was not independently verified, some known problems were glossed over, and "the companies need not fear sanctions or redress even if the guidelines are violated" (Business & Human Rights Resource Centre, 2021, p. 7). In other words, even when Bettercoal finds non-conformities, the mechanism relies on persuasion (through improvement plans) rather than any enforcement or penalty; the mine can continue selling coal to members as long as it nominally commits to improvements. Bettercoal has no public blacklist or exclusion policy for poorly performing mines. Instead, it emphasises continuous improvement. This approach, while collaborative, leads to accountability gaps. Indeed, Bettercoal's belated reports seemed aimed more at "protecting the image of the mining companies" than at driving real accountability.

Without detailed, publicly available information on how companies perform to Bettercoal's standards, it becomes challenging for NGOs, community groups, and activists to hold mining companies accountable. This lack of public scrutiny, in turn, undermines one of the key principles of responsible business conduct: the ability of affected stakeholders to access information and demand improvements. Critics argue that if Bettercoal is serious about improving social and environmental standards, it should publicly disclose the detailed results of its assessments and compare the actions companies take in response to identified issues instead of merely stating all the seemingly positive actions a firm is taking.

The governance structure of Bettercoal has, too, been a point of critique. The Board of Directors is composed exclusively of representatives from the member coal-buying companies. As of 2021, the Board was chaired by an executive from Uniper and included directors from utilities like RWE, Vattenfall, etc., but no independent civil society members (ResponsibleSteel, 2022, p. 8). Bettercoal does have a Technical & Advisory Committee intended to provide expert input on mining and sustainability issues. However, even in this advisory group, a majority of seats are held by industry (member companies and mining companies themselves), with only a few slots for external experts or NGO/community representatives, and those expert members are approved by the Board. Stakeholder inclusion has therefore been disproportionately limited. This governance setup inherently favours industry perspectives and excludes more critical voices (NGO 2, NGO 3, Informant 1).

Another major criticism levelled at Bettercoal is that, while the initiative promotes engagement with stakeholders, it, in reality, does not involve affected local communities such as the Wayúu in active policy and governance design (NGO 2, NGO 3, Informant 1). Although the summary report states that they were engaged in the company's assessment, it does not disclose the questions and discussions. This leads to claims that the initiative does not adequately address the on-the-ground realities, limiting the initiative's credibility in truly improving social and environmental outcomes. Indigenous groups have argued that Bettercoal's framework is focused primarily on corporate stakeholders and European energy companies rather than on the communities directly impacted by mining operations (informant 1, NGO1, NGO 2). Community representatives in La Guajira have limited ways to input or challenge the findings, because the process is largely company-to-company (Informant 1).

Lastly, Bettercoal's focus on responsible coal is inconsistent with the broader goals of environmental sustainability and the global push to phase out coal as part of the transition to renewable energy. Informant 1, NGOs 2 and 3 stated that the initiative is “a form of greenwashing” - an effort to present coal as a more sustainable energy source despite its inherent environmental harm: “Bettercoal's efforts make coal extraction more palatable to consumers and policymakers without addressing the root environmental issue - the continued reliance on coal as an energy source” (Informant 1). The initiative thereby fails to address the urgent need to transition to renewable energy, and it risks promoting marginal improvements while continuing to enable the environmentally damaging practice of coal extraction. As expressed by most interview partners, coal mining is fundamentally incompatible with global efforts to combat climate change and reduce carbon emissions, and no amount of CSR can make coal mining genuinely sustainable (Informant 1, NGO 1, 2 & 3).

Risk Assessment and Supplier Due Diligence

EnBW has instituted a multi-step risk analysis integrated into its enterprise risk management to comply with the German Supply Chain Due Diligence Act (LKSG) (EnBW, 2024, pp. 12–14). The process starts with mapping the company's own operations and supply chain, including direct and indirect suppliers, to gain transparency over sourcing countries, materials, and sub-suppliers. EnBW draws on both internal and external sources (e.g. incident reporting systems, studies, ESG databases) and cross-functional workshops to identify human rights and environmental risks in its sectors and supplier countries. Risks are evaluated based on the severity of potential impact, including its scale and irreversibility, the likelihood of occurrence, and EnBW's degree of contribution or influence (“Verursachungsbeitrag”) in causing the risk. These criteria align with international due diligence standards, prioritising more severe and probable risks (EnBW, 2024, p. 13). EnBW has also implemented an automated supplier risk scoring system as part of its vendor management, enabling human rights and environmental risk flags during supplier onboarding and selection. This suggests the use of third-party ESG risk data tools (e.g. media screening services or databases similar to RepRisk) to continually monitor suppliers. In practice, EnBW conducts an annual group-wide risk analysis and has long performed enhanced due diligence for high-risk sourcing. For example, the company states that all direct coal and gas suppliers undergo a comprehensive review of their risk profile and mitigation measures before contracts are concluded (EnBW, 2024, p. 14).

Grievance Mechanism and Whistleblower Channels

EnBW provides multiple channels for internal and external stakeholders (including suppliers and their workers) to report human rights or environmental concerns. An official whistleblower portal is available, which includes an online reporting form and a telephone hotline; this system supports several languages and allows anonymous submissions (the reporter can choose to withhold their identity) (EnBW, 2024, p. 1). In addition, EnBW publicises a dedicated compliance email address for submitting concerns in writing. The firm has also appointed an external ombudsman as a confidential reporting channel. Whistleblowers can directly contact the ombudsman by phone or mail and, because they are bound by the attorney–client privilege, they can guarantee the informant's confidentiality and even anonymity vis-à-vis the company. This multi-channel system (web portal, hotline, email, and external ombudsperson) is meant to ensure broad accessibility, including for foreign-language speakers and indirect supply chain workers, and aims at encouraging reporters to come forward without fear (EnBW, 2024, p. 1).

EnBW's whistleblowing procedure aligns with the new Whistleblower Protection Act (Hinweisgeberschutzgesetz) (EnBW, 2024, p. 15). The company explicitly assures that no whistleblower will face retaliation or adverse consequences for reporting in good faith. Reports can be made anonymously, and all submissions are handled confidentially by EnBW's Compliance department. The Ombudsman channel further underpins anonymity, as the lawyer will only forward the substance of the complaint to EnBW after obtaining the whistleblower's consent (EnBW, n.d., p. 1). Upon receiving a complaint, the Compliance team evaluates its credibility and will initiate an investigation if the allegation is substantiated. EnBW's internal guidelines (Verfahrensordnung) set out a process with only staff who "need to know" being involved, operating independently to investigate the facts and recommend actions. Follow-up measures are taken to address confirmed violations, including remedial steps with the supplier or within EnBW's operations. Moreover, insights from complaints feed back into EnBW's risk management. For example, substantiated complaints can trigger an ad-hoc risk analysis under the LKSG to update risk ratings and preventive measures (EnBW, 2024, p. 15). EnBW's 2023 LKSG report confirms that the complaint mechanism is an integral part of its due diligence system, aligning with legal requirements on whistleblower protection (confidentiality, no retaliation, timely response) and providing a channel for rights-holders to seek remedy (EnBW, 2024, p. 15).

Private Governance Structure and Normalisation Process

From the reconstruction of the value chains at the beginning of this section, it becomes clear that the German energy producers are not the drivers of their chains to El Cerrejón. The coal supply relationship between German energy companies (EnBW, Uniper, STEAG) and the Cerrejón mine in Colombia exemplifies a market-based governance structure in GVC terms (Gereffi, Humphrey, & Sturgeon, 2005, p. 83). In such arms-length arrangements, firms primarily buy and sell products with minimal direct coordination, with price serving as the primary governing mechanism (Dallas, Ponte, & Sturgeon, 2019, p. 669). Indeed, German utilities often have weak or no binding long-term contracts with the mine. Consequently, these linkages are not "thick" with information exchange or technical integration but rather driven by spot transactions and basic quality specifications (Gereffi et al., 2005, p. 86). According to Gereffi et al.'s governance typology, this aligns clearly with a "market" governance type, characterised by low explicit coordination and minimal power asymmetry compared to more integrated forms such as captive governance, where dominant buyers tightly control suppliers (Gereffi et al., 2005, p. 87)(Dallas et al., 2019, p. 672). Here, no single buyer exercises entrenched oversight, as German firms operate essentially as commodity buyers in a global coal market, significantly limiting their capacity to dictate conditions or deeply intervene in Cerrejón's operational practices (Dallas et al., 2019, p. 673).

This market-driven structure sharply limits the German firms' governance reach because, unlike a lead firm in a hierarchical or captive chain, they cannot rely on corporate ownership or dependency to enforce standards (Gereffi et al., 2005, p. 83). Instead, their influence is largely confined to the terms of purchase and voluntary arrangements (Dallas et al., 2019, p. 669). The power asymmetry in this dyadic link is relatively low compared to hierarchical chains, as each utility represents only a fraction of Cerrejón's export market, and the mine - now entirely owned by the global giant Glencore - has numerous alternative buyers (Glencore, 2022, para. 2). The supplier's economic power, reinforced by its significant global presence, dilutes the leverage of any individual buyer (Dallas et al., 2019, p. 672). In practical terms, threats to cease buying carry limited weight since Cerrejón can readily sell its coal elsewhere. EnBW's assessments confirm that "it is not so much the threat of termination of supply relationships that is most effective" for prompting changes, but rather other approaches (EnBW, 2020, p. 7). Thus, the governance structure remains decentralised, without strong contractual obligations allowing the German companies to directly compel Cerrejón to improve labor conditions or environmental practices.

Although explicit power asymmetry in a market linkage is low, subtle power imbalances persist. Economically, Cerrejón/Glencore wields considerable power as the producer, controlling a critical resource and possessing the capability to diversify its customer base globally (Dallas et al., 2019, p. 675). Conversely, German utilities have historically been replaceable buyers, particularly evident before 2022 when many sourced coal from Russia or alternative suppliers to satisfy their demand. This dynamic contrasts with the classic “buyer-driven” chain model. The producer-driven nature of a commodity chain means the supplier is not dependent on any single buyer, significantly reducing buyer bargaining power (Gereffi et al., 2005, p. 84). As GVC theory indicates, power asymmetry diminishes as governance moves from hierarchical to market structures, highlighting the limited capacity of German utilities to impose unilateral standards or preferences (Gereffi et al., 2005, p. 85). For example, unlike captive governance where a lead firm tightly monitors compliance and can effectively threaten exclusion, German companies lack sufficient clout due to their limited purchase volumes relative to Cerrejón’s overall output, thus failing to establish structural dominance (Dallas et al., 2019, pp. 678–679).

The lack of economic and contractual bargaining power results in the firms' codes of conduct being passively adopted. These codes are merely posted on their websites, where suppliers without a formal contract can view them. This is how the German companies communicate their underlying norms to their supplier, El Cerrejón. It is also worth noting that the codes of conduct of the German companies align with those of El Cerrejón and Glencore, as do their grievance mechanisms. In practice, even if the supplier does not review the codes of conduct detailing socio-environmental standards, this is not a significant issue, as El Cerrejón itself adheres to the same internal norms, consistent with the international standards established through traditional, voluntary CSR initiatives.

Agency of the German Firms

The preceding analysis has indicated the firms’ role within the value chains examined here, highlighting a contradiction. This contradiction points to an inherent tension between public ownership and corporate interests, especially under Germany’s LKSG. Uniper, EnBW, and STEAG, while publicly owned or at least significantly influenced by public organisations in 2023, face a critical ethical dilemma: their explicit responsibility to comply with strict human rights obligations versus their continued procurement from El Cerrejón. One might therefore expect that state or municipal ownership would orient these firms toward higher ethical standards, given their public accountability. In practice, however, these firms operate with the same economic imperatives as any private corporation, prioritising cost-efficiency, energy security, and profitability over normative commitments. Germany’s federal and regional governments, as majority/dominant shareholders, have been deeply concerned with maintaining affordable energy and avoiding supply disruptions, especially during the turbulences of the Russian coal and gas embargo. This imperative has, in effect, overridden any impulse to halt coal imports on moral grounds. For example, even after nationalisation, Uniper continued to source coal to fuel its power stations, as ensuring electricity generation took precedence over re-evaluating suppliers from a human rights perspective. The Federal Government, now the owner of Uniper, made it explicit that the takeover was to secure Germany's energy supply, implying that the continuity of operations was the top priority. Similarly, EnBW's majority stakeholder (the state of Baden-Württemberg) and STEAG's municipal owners did not instruct these companies to disengage from Cerrejón, but rather to manage the risks of that engagement.

From a neo-Marxist perspective, as outlined in the Theoretical Framework, this illustrates the structural role of the state in sustaining capitalist systems. The state may own enterprises, but it also depends on those enterprises to deliver economic growth, revenue, and social stability (in this case, keeping lights on and factories powered). As a result, public owners can behave "as capitalists" themselves. An analysis by the Institute for Energy Economics and Financial Analysis noted that STEAG's municipal proprietors were "rushing to sell [the] utility to maximise profits", treating the company as a financial asset rather than a public service (IEEFA, 2023, p. 2). This profit-driven logic translated into STEAG's continued exploitation of its coal assets (including Cerrejón supply contracts) to improve its market value. The fiduciary drive to maximise returns can thus come into tension with the ethos of human rights due diligence. In the case of STEAG, the public owners' focus on commercial considerations led to neglect broader responsibilities – "owners, made up of municipal authorities, are rushing to sell…underestimating the impact it will have on […] decarbonisation ambitions" (IEEFA, 2023, p. 2). By analogy, the impact on human rights in Colombia can be similarly underplayed. Public ownership did not compel a more empathetic or justice-oriented stance; instead, state actors prioritised the same goals (profitability, energy access) that any private shareholder would.

Moreover, the German firms operate in the "core" of the world system (industrialised Germany), where energy companies compete to deliver affordable power. They rely on extraction zones in the "periphery" (like La Guajira, Colombia) for cheap raw materials. The structural position of the companies in this core gives them access to capital, state backing, and international leverage, but also binds them to the imperatives of capital accumulation: securing resources at the lowest cost, fulfilling shareholder (or state budgetary) expectations, and perpetuating growth. In Marxist terms, the logic of capital – the need to generate surplus value – heavily conditions their choices. Even if individual executives or public overseers were sympathetic to the Wayúu plight, the companies' embeddedness in a competitive capitalist market makes it difficult for them to unilaterally cease using a profitable coal source without economic penalty. The result is what neo-Marxists might call a form of structural coercion, where the companies' agency is structured (and limited) by their role in the global division of labour and the relentless demand for profit and energy security.

This contradiction undermines the moral authority of the LKSG and related policies. On one hand, the German state legislated corporate due diligence to protect human rights abroad; on the other hand, the German state, as a corporate shareholder, benefits from and even encourages business-as-usual with a supplier linked to human rights abuses. The structural incentive to secure raw materials cheaply and reliably often trumps the relatively weak counter-pressure of legal compliance or ethical norms. The companies' agency is thus motivated by state interests and capitalist market pressures, where they find ways to satisfy the letter of the law (through audits, dialogues, reports) while continuing practices that meet the state's economic objectives and their own bottom-line needs. The dilemma illustrates a deeper tension in corporate sustainability and ethics, where public ownership can create both opportunities and constraints. While theoretically enhancing accountability and ethical obligation, it can paradoxically lead to a dilution of direct accountability, with decision-making spread across governmental and corporate structures, enabling responsibility evasion and thus leading to inaction. A particularly pertinent statement by Informant 1 can be applied here: "in effect, formal compliance becomes a shield that deflects deeper criticism, allowing publicly-owned firms to claim responsibility without fundamentally changing their sourcing strategy".

In this context, the LKSG allows companies considerable latitude in designing their due diligence processes. Companies can fulfil the formal legal requirements by demonstrating they conducted risk analyses, supplier assessments, and established grievance mechanisms, even if the ultimate impacts on the ground remain unchanged. In other words, it is possible to comply with procedural requirements without driving meaningful change or remediation at the supplier level. The companies' actions imply they perceive compliance with LKSG less as an opportunity to drive real ethical change and more as a risk management and reputational strategy. They use reports to project an appearance of ethical commitment - "kosher" on paper - but without substantially challenging problematic practices in their supply chain. By presenting themselves as compliant, responsible actors, these companies effectively leverage the LKSG as a reputational safeguard, minimising public scrutiny without making uncomfortable operational changes that might increase costs or disrupt their coal supply.

Notwithstanding, from a broader governance perspective, the interactions and positions of these private actors within the chain constitute only part of the overall picture. As detailed in the Theoretical Framework Section, chain governance involves private, public, and social actors operating at various levels, exerting influence and shaping the governance dynamics of the value chain.

Public governance involves local, regional, or national governments setting formal rules and regulations that affect social and economic outcomes. Examples include labour laws, environmental legislation, and value chain due diligence legislation like the LKSG. Social governance involves local, national, and international civil society actors, such as labour unions and NGOS, which pressure firms to adhere to social and environmental standards. Social governance operates through the intra-scale network of civil society actors at different levels to put pressure on lead firms, major suppliers, and governments.

The following section presents the results of the public and social governance analysis, detailing the adjacent public and social actors by defining their specific roles, positions within the value chain, and particular agency. Together with the previously explored private actors, these insights into public and social governance complete the depiction of the value chain, highlighting its governance dynamics.

Public governance

The Colombian State: Regulating and Enabling Coal Extraction

A central tension in Colombia's political economy is the contradiction between its progressive legal commitments to human and environmental rights and its economic dependence on extractive industries like coal mining (Restrepo & Peña, 2017, pp. 270–271). This results in an uneven performance, which is not merely a matter of political will as it is rooted in structural constraints that limit the state's agency. A first key factor is economic dependency. Coal and other fossil and mineral exports have been deliberately made pillars of Colombia's development model, especially since the 1990s liberalisation (NGO1, NGO2, GIZ). By 2023, the mining-energy sector accounted for nearly half of Colombia's export earnings (of which 18% came from coal) and a significant share of GDP (over 12%), while providing hundreds of thousands of jobs and large tax revenues (Ministerio de Minas y Energía, 2022). This heavy reliance creates powerful incentives for state actors to keep the coal flowing. NGO 1 revealed that national and local budgets have grown to depend on royalties and taxes from projects like Cerrejón, making officials reluctant to take any action that might disrupt production. In La Guajira, one of Colombia's poorest regions, the mine is a major employer and source of income, making regional authorities politically and fiscally tied to its fortunes. Such economic ties bind the state's hands, because stringent enforcement of environmental or social regulations, or any move to restrict Cerrejón's operations, threatens short-term revenue and investment, a trade-off many officials are unwilling (or feel unable) to make (NGO 1, NGO 2).

The inherent imbalance of power is rooted in class and capital, with a neo-Marxist view of agency, which highlights that Colombian state actors operate "under circumstances…given and transmitted from the past," namely, a global capitalist structure that privileges capital accumulation (Svarstad, Benjaminsen, & Overå, 2018, pp. 356–358). The agency of the Colombian state is thus constrained and shaped by these structures: the state tends to reproduce existing power relations (benefiting elites and foreign investors) rather than transform them. In other words, the Colombian state functions as a contradictory actor, responsible for social protection yet fundamentally embedded in a class structure and world system that prioritises accumulation. The result has been that public governance largely perpetuates the extractivist status quo: progressive laws become symbolic gestures while extractive interests continue to predominate in practice, reflecting the dominance of capital over subaltern classes and communities in this chain.

For example, attempts by Colombia's Constitutional Court to enforce rights (such as halting projects or protecting reserves) have triggered backlash. Investor–state arbitration cases have been brought against Colombia when companies felt that the enforcement of environmental or social rules violated trade agreements. This threat of multi-million-dollar lawsuits exerts a chilling effect on regulators, reinforcing a "structural bias" toward corporate interests (NGO 1, NGO 2). Furthermore, the security apparatus has been deployed to protect mining infrastructure, with Colombia creating 21 special Mining/Energy military battalions (over 60,000 troops) and dozens of private–public security agreements to guard extractive projects (Restrepo & Peña, 2017, pp. 281–284). Such arrangements, often termed a "state–multinational alliance," exemplify how state power (military and police) is used to secure corporate operations, sometimes at the expense of local community safety (Sydow, 2020, pp. 13–14). Labour protections are similarly under-enforced, with coal mining having a history of anti-union violence and poor safety oversight (Bratspies, 2020, pp. 22–24).

In summary, as long as big coal and other extractive industries hold structural power in Colombia's political economy, state agencies charged with upholding labour and environmental standards often lack the will or capacity to rigorously enforce them. This dynamic reflects how the Colombian government's agency is embedded in and limited by larger class relations and capitalist imperatives. Thus, the agency of public governance actors lies in an inverse relationship with that of their private counterparts. Consequently, if the agency of big coal and thereby the private actors is strengthened, that of public governance actors is diminished.

Germany's Agency through the LKSG

Germany's agency in this scenario, exercised through the LKSG, is pivotal yet similarly constrained and conflicted. The German government implemented the LKSG precisely to enhance human rights due diligence within global supply chains. However, the situation of German energy companies continuing to source from El Cerrejón despite the human rights violations highlights significant shortcomings and contradictions in Germany’s own agency as well. The German government's agency is bound by its own economic interests, especially regarding energy security, a sensitive topic following the 2022–23 energy crisis stemming from geopolitical tensions. Energy companies have been tacitly permitted, or even indirectly encouraged, to source from controversial suppliers due to practical, short-term energy needs. Thus, Germany's agency under the LKSG is constrained by the broader geopolitical and economic context, making the law’s idealistic human rights ambitions secondary to practical economic realities.

What is more, while LKSG compliance is mandatory, enforcement is still evolving. For now, the government’s oversight is primarily procedural, verifying that companies produce risk assessments and reports rather than thoroughly investigating the accuracy or effectiveness of actions taken. Thus, Germany’s agency is effectively diluted by a lack of rigorous, independent enforcement. Germany’s relationship with Colombia also shapes its agency. Directly pressuring the Colombian government or Colombian-based companies might entail diplomatic discomfort or economic repercussions. Thus, Germany’s agency is also limited by diplomatic considerations, sometimes resulting in selective enforcement or "quiet diplomacy," placing procedural compliance above genuine confrontation of abuses.

Moreover, the LKSG, paradoxically, can serve as a governmental "seal of approval" for companies that superficially comply without achieving tangible improvements. The German government’s agency here is inadvertently used by companies to create an appearance of responsibility, which paradoxically risks legitimising ongoing violations rather than ending them.

Having analysed the limitations and contradictions within private and public governance, the analysis now shifts to social governance and the agency exercised by its actors to explore how these exercise their agency to address governance gaps.

Social Governance

Indigenous governance systems form the first line of social regulation in La Guajira (NGO 3). Wayúu communities historically manage internal affairs through councils of elders and traditional authorities who assert stewardship over territory and resources (NGO 3). These authorities have played a role in voicing community grievances against Cerrejón’s impacts. For instance, local leaders have coordinated protests and issued public statements demanding respect for their rights to water, land, and health (NGO 3). An illustrative case is the coalition of Wayúu communities that opposed the diversion of the Arroyo Bruno (a stream vital for local ecology) for mine expansion. They pursued legal action and mobilised public opinion, with their struggle eventually reaching the Colombian Constitutional Court and international observers (NGO 1, NGO 2). Indigenous governance also manifests in grassroots organisations like the Wayúu Women's Force (Fuerza de Mujeres Wayúu), founded in 2006 (NGO3). This group of Wayúu women and men across 15 municipalities has been organising to "resist the mine" and defend their territory. They operate within cultural frameworks (e.g. emphasising protection of water as a life-giving element in Wayúu cosmology) while also adopting modern advocacy tactics. Despite facing intimidation and violence, including persistent death threats from paramilitary groups targeting them for denouncing coal mining, the Wayúu Women's Force continues to train community members in human rights and environmental monitoring (NGO 3). Such indigenous initiatives provide crucial horizontal channels for community members (especially women, who often bear the brunt of water scarcity and health issues) to voice complaints and document abuses (NGO 3).

However, indigenous governance systems alone have limited power to hold a multinational corporation accountable. Here, NGOs and intermediary actors have become pivotal in the complaint process, acting as bridges between the local and global arenas (NGO 1; NGO 2, NGO 3). Local Colombian NGOs, for example, CINEP (Centro de Investigación y Educación Popular) and CAJAR (Colectivo de Abogados José Alvear Restrepo), have deep relationships with affected communities and help gather testimonies, evidence, and organise assemblies (NGO 1, NGO 2, NGO3). These organisations often work alongside international NGOs. In the Cerrejón case, a broad transnational coalition came together to seek remedy via the OECD Guidelines for Multinational Enterprises. In 2020-21, the Global Legal Action Network (GLAN), an international NGO, prepared a comprehensive complaint on Cerrejón with support from Christian Aid, CINEP, CAJAR, AIDA (Interamerican Association for Environmental Defense), ABColombia, and others (ABColombia, 2021a). This coalition exemplifies intermediary actors at work: they took community grievances (health impacts from coal dust, water contamination, displacement from ancestral land) and reframed them in the language of international soft law (OECD responsible business standards), assembling a legal dossier against the mine's owners (GLAN, 2021). Notably, GLAN's submission was not filed on behalf of a single community, but rather by the NGO itself as the notifier, yet it was firmly grounded in local empirical evidence, including studies showing 336,000 cases of respiratory illness annually in La Guajira attributable to the mine (ABColombia, 2021b). This underscores that NGOs often act as proxies or representatives for communities that lack direct access to global mechanisms.

The complaint process orchestrated by these intermediaries was multi-sited, with GLAN simultaneously lodging filings with the National Contact Points (NCPs) of Ireland, the UK, Switzerland, and Australia, corresponding to the jurisdictions of Cerrejón's joint owners at the time (Anglo American, BHP Billiton, and Glencore) and a related Irish coal marketing firm

(ABColombia, 2021a). By pursuing several NCPs, the NGOs attempted to “scale-jump” the grievance vertically from a local issue to an international investigation. Indeed, by January 2021 multiple OECD NCPs agreed to examine the case, opening a process into the mining giants and even a downstream buyer (Ireland’s state electricity company) for “serious human rights abuses and devastating environmental pollution” at Cerrejón (BHRRC, 2021). This outcome, a coordinated transnational complaint, indicates the effectiveness of NGOs and networks in creating formal venues when local remedies fall short. It also shows “vertical” complementarity: while indigenous activists kept pressure on the ground (through protests, local media, and engaging Colombian institutions), NGOs carried the issue upward to forums where corporate image and investor concerns come into play.

The role of intermediary actors extends beyond filing complaints; they also facilitate communication and leverage points with various governance stakeholders (NGO 1, NGO 2, NGO 3). For example, NGOs have engaged the Bettercoal initiative (a voluntary industry scheme among European coal buyers) to press member utilities to improve Cerrejón’s practices (NGO 2). They have organised international advocacy tours; in late 2023, a group of Colombian and Peruvian community leaders travelled across eight European countries, with NGO support, to speak to parliamentarians, banks, and investors about Glencore’s (now sole owner of Cerrejón) harmful mining practices (NGO 2). Such tours are a form of transnational advocacy aimed at both public governance (meeting regulators and lawmakers to influence policy) and market governance (urging financiers to divest or impose conditions). During one London event titled “Unmasking Glencore”, indigenous representatives from Colombia highlighted human rights abuses at Cerrejón to a global audience (NGO 1). These mediating actions by NGOs and civil society networks enable “scale jumping” in practice, translating local discontent into international pressure.

Assessing the effectiveness of these actors in the complaint process requires looking at outcomes and accountability loops. On one hand, social governance actors have undeniably succeeded in putting Cerrejón’s issues on the agenda of powerful forums: they secured OECD NCP reviews, drew UN special rapporteur attention (the UN Special Rapporteur on environment in 2020 called for suspension of some mine operations on health grounds), and catalysed new scrutiny under the LKSG. On the other hand, concrete remedies for affected communities remain limited. For instance, a prior OECD complaint in 2007 led the mining companies to commission an independent social review and develop an action plan for resettlement and impact mitigation. While that process set a precedent, many community members felt that corporate commitments still fell short or were slowly implemented, indicating a gap between procedural gains (having a platform, an investigation, an agreement) and substantive gains (land returned, harm compensated, rights fully respected) (NGO 1, NGO 2, Informant 1). Indigenous governance systems continue to operate under duress, with local leaders still reporting unfulfilled promises and ongoing violations years later (Informant 1). Therefore, the presence of NGOs and intermediaries is necessary but not sufficient for an effective remedy. These actors provide communities with voice and technical capacity in formal complaints, yet structural power asymmetries often limit the ultimate impact of even well-founded complaints (NGO 1, NGO 2, NGO 3, Informant 1).

Agency of Social Governance Actors

The agency of social governance actors, particularly the Wayúu community and NGOs, is complex and multidimensional, characterised by both empowerment and vulnerability. On one hand, the Wayúu community exercises substantial agency through their traditional governance structures, cultural cohesion, and strategic mobilisation of national and international networks. Their ability to combine customary governance (Palabreros, assemblies) with formal institutional channels enhances their resilience and effectiveness in advocating for their rights and interests (NGO 2, NGO 3). The agency of civil society actors, such as NGOs and activist networks, primarily lies in their capacity to amplify local grievances, mobilise public opinion, and hold corporations and governments accountable through advocacy, awareness campaigns, and legal action. Their independence and ability to leverage international attention grant them significant influence. However, on the other hand, their agency is simultaneously constrained by factors like funding dependence, political pressures, and potential conflicts of interest (NGO 1, NGO 2, NGO 3). Such constraints can lead to selective advocacy, fragmentation, or co-optation, diminishing their overall effectiveness in driving sustained, systemic change.

Within the Wayúu, there are risks of internal divisions, competing interests among clans, and manipulation or co-optation of specific leaders by corporate or political interests (NGO 3). Similarly, NGOs operating at different levels, from grassroots organisations to international advocacy groups ,have their own agendas, funding dependencies, and strategic considerations (NGO 1, NGO 2, NGO 3). These differences fragment collective action or prioritise certain grievances at the expense of broader community goals. Thus, while social governance actors possess meaningful agency in terms of advocacy, mobilisation, and resistance, their effectiveness is undermined by co-optation, fragmentation, and competing interests.

The intersection of public and social governance in this case is marked by both collaboration and tension. Ideally, public governance (Colombian government institutions) and social governance actors (Wayúu community and NGOs) should collaborate to strengthen accountability, safeguard human rights, and ensure environmental protection. In practice, however, this intersection is often contentious, characterised by governmental reluctance or inability to enforce regulations effectively, combined with civil society's critical advocacy pushing for stronger oversight (NGO 1, NGO 2, NGO 3).

Social governance actors frequently step into gaps left by weak public governance, exerting pressure through advocacy, litigation, and international campaigning. Yet, government actors respond by either selectively co-opting social leaders to neutralise dissent or by superficially accommodating demands without achieving genuine policy change (Informant 1). This dynamic both empowers and limits social governance. While it validates the role of social actors as essential checks on governmental shortcomings, it also places them in continuous tension with public authorities, undermining sustained cooperation and meaningful reform.

Having analysed the dynamics and agency of social governance and the complex interplay between public and social governance actors, attention now turns to a key focus of this paper: evaluating the efficacy of the German firms' complaints mechanisms in enabling scale jumping and fulfilling due diligence obligations. The subsequent section thus provides an assessment of these mechanisms, ultimately highlighting their impact on the agency exercised by the various governance actors involved.

Efficacy of the Complaints Mechanisms for Scale Jumping and Due Diligence

This segment analyses the effectiveness of the complaint mechanisms of the here relevant German companies and extends it to their overall risk management. As outlined in the methods section, the results are based on, on the one hand, the information gathered through interviews during field research and, on the other, the scrutiny of the sustainability reports specifically mandated under the LKSG. In addition to the resources provided by the German firms, El Cerrejón's and, by extension, Glencore's are examined. Thus, the complaints mechanism and the 2023 sustainability report of El Cerrejón/Glencore are also considered. This is because they provide primary information on the existence of directly reported grievances. This is useful because no complaints at the German firms does not mean that no complaints or grievances have been forwarded at all along the value chain. A comparison with the LKSG reports of the German buyers can reveal gaps, particularly when it is known that the implemented risk management processes in the context of the LKSG primarily involve the self-reporting of suppliers.

As mentioned previously, one limitation is that STEAG did not publish any such report for the year 2023. Its general sustainability report was thus considered an alternative, albeit comparatively restricted, source. Notwithstanding the foregoing caveat, EnBW and Uniper have both issued their LKSG sustainability reports, which are used here.

Uniper released its LKSG report on June 7, 2024, and EnBW on August 10, 2024. The original deadline of December 31, 2023, was postponed twice to, ultimately, be due exactly one year later, explaining the delay. The adjournment coincided with regulatory adjustments at the EU level, including postponing the deadline for the forwarding of sector-specific reporting standards by the European Commission in the context of the CSRD. This engendered a general postponement of due diligence reports under the CSRD to 2026. The BAFA coordinated accordingly, stating that it aimed at alleviating bureaucratic overload in firms. While the reports will, in large part, overlap thematically and with regard to content, it remains an uptake of desk hours for the firms and governing German and EU-legislative bodies. The question here is, for what?

Recalling the Theoretical Framework, the aim of the examination of the grievance mechanisms is to review their role as vectors for the Wayúu's agency. The underlying process through which their agency is intended to be strengthened is by way of scale jumping, effectively transforming the companies into their (the Wayúu's) agents. This would, however, imply that the complaint mechanisms are used in the first place, which is contingent on the knowledge of these by the Wayúu affected by rights violations.

Yet, on the ground, the Wayúu are entirely unaware of the proposed resources and the companies providing these: the German buyers STEAG, EnBW, and Uniper. The people's information gap on the supply chains El Cerrejón is involved in, and thus, the large firms, in this case, German buyers with whom the mine conducts (direct) business, is important. As stated by informant 1, the Wayúu are largely shielded from the value chain and vice versa. It is thus not surprising that none of the German firms have received any complaints on rights violations from anyone in La Guajira, according to their reports. While EnBW noted to have received 15 complaints via their online complaint mechanism, these were unrelated to El Cerrejón and Colombia in general (EnBW, 2024). Instead, the complaints were from within the firm regarding remuneration disputes.

As hinted at the beginning of the foregoing paragraph, the first fundamental issue is thus awareness and outreach. The LKSG and BAFA guidance stress that companies must proactively inform their key stakeholder groups about the complaints process. BAFA's own guidance states that a mechanism is effective only if all target groups know about it, trust it, and can use it without barriers. BAFA explicitly advises that companies identify vulnerable groups (such as indigenous communities) in their supply chain risk analysis and tailor the grievance mechanism to their needs. This could include providing local contact points, using local languages, and even visual materials for those with low literacy. In practice, however, the German energy companies rely primarily on web-based portals and hotlines to receive complaints, which are tools that do not reach a community like the Wayúu. Many Wayúu community members live in remote areas of La Guajira with limited or no internet access (a classic digital divide problem) and speak Spanish or Wayúunaiki (NGO 3, Informant 1). While EnBW's hotline supports Spanish and dozens of languages, it does not feature Wayúunaiki. What is more, even if every language were supported, it would mean little if the community is not even aware of EnBW's existence or its complaint hotline. Thus, a Wayúu villager suffering from mine pollution is unlikely to know that they could, for example, call a German 1-800 number or navigate an online form to report their grievance to a company like EnBW or STEAG. The burden of initiative is placed on the very communities that are least equipped to navigate foreign corporate channels.

Even if awareness exists, practical barriers abound. Communicating a complex complaint (e.g. about groundwater depletion or health issues) through an online form or hotline presents challenges of language (nuances lost in translation) and trust (Informant 1, NGO 3). Notably, Cerrejón's own on-site Complaints Office, established in 2009 as a pilot for the UN Guiding Principles, recognised the need for cultural adaptation: it has Wayúu advisors and allows complaints in the Wayúunaiki language, as described by informant 1, who has utilised the mechanism. On paper, the mine's local mechanism boasts a 99% satisfaction rate in surveys. Yet, as stated by Informant 1, the Wayúu leaders, who have pursued court action and international complaints, did not find the company-run mechanism adequate or trustworthy for severe harms. If a local grievance office struggled to fully gain the community's trust, one can imagine the scepticism toward a distant buyer's grievance mechanism. For a Wayúu family, reporting directly to a German company feels too far removed to be effective, especially if they fear it could jeopardise local negotiations or simply doubt anything will change (Informant 1). This indicates a gap between the existence of a grievance channel and its perceived legitimacy among those it is meant to help. Merely having a mechanism is not enough – affected communities must find it credible and approachable. From the community perspective, the German companies' complaint mechanisms might as well be invisible (Informant 1). This accessibility gap undermines the very purpose of the LKSG's complaint procedure. If those most at risk cannot easily use the mechanism, it fails as an early warning and remediation system.

Nevertheless, STEAG, EnBW, and Uniper have been quick to declare compliance with the LKSG, issuing polished sustainability and due diligence reports for 2023–2024. Here, the contrast between corporate self-reporting and on-the-ground realities highlights a recurring theme: appearance versus substance. These reports emphasise new policies, risk assessment processes, and the existence of grievance mechanisms. For instance, EnBW's report proudly notes that its grievance process not only meets LKSG requirements but also the new whistleblower protection law, combining multiple compliance functions into one system. El Cerrejón's 2023 sustainability report claims a 99% resolution rate to the complainants' satisfaction. At face value, that suggests a near-perfect remedy system. However, this rosy statistic belies the fact that the violation of specifically protected rights under the LKSG (especially under points 9 and 10 of para. 2) by El Cerrejón is still going on. As put forward in the Background section, a complaint filed by informant 1 as part of Wayúu representation with the support of a local and national NGO was disclosed to the author during a field interview. It not only revealed the ongoing, significant rights violations by the mine, but it also showed that these do not leave the mine once filed. Again, El Cerrejón receives critical information in the form of complaints or grievances and filters it, but does not forward it to the German inquirers, who investigate through self-reporting requests.

The German companies' LKSG reports currently offer limited insight into how many complaints from affected communities have actually been received or resolved. If EnBW or Uniper report a low number of supply chain grievances, is it because their suppliers had no issues or because the mechanism wasn't accessible enough? The foregoing results have shown that it is the latter. Furthermore, without detailed, disaggregated reporting (e.g. "X number of complaints from local communities in foreign operations"), stakeholders cannot easily tell. Informant 1 revealed that El Cerrejón and, by extension, Glencore, actively shape a reality projected to the 'outside'. In particular, it is aimed at foreign business partners and the regulatory bodies of the countries they are headquartered in. These foreign governing authorities constitute a potential threat to sustained business relations through the existing hard law on due diligence. Moreover, it is aimed at the public in the buyer countries, which has, in the past, been the scale at which critical pressure boils over into action. If, according to the informants, mandated accountability becomes inevitable due to an overload of direct information about rights abuses, commercial ties are jeopardised, and potential penalties are likely. In other words, a negative domino effect could ensue.

Therefore, when foreign representatives inquire about alleged rights violations in and around the mine, it is directly addressed at El Cerrejón, akin to a request to self-report (Informant 1). This is underlined by the German firms' mandatory investigations into their Colombian supplier, following its categorisation as high risk (not due to receiving direct complaints through the grievance mechanisms but because of ample secondary data from reports and other historical documentation on the highly questionable behaviour of the supplier vis-à-vis the surrounding Wayúu population). These investigations did, ironically, not include the involvement of the affected Wayúu. As affirmed by Informant 1 and NGO 1, the German firms have approached neither the Wayúu, nor any CSO's. The firms' investigations were based entirely on requests to El Cerrejón to self-report any potential issues regarding human rights. This resulted in a positive outcome of the inquiry, with no rights violations identified because critical complaints such as the one provided by Informant 1 do not leave the confines of El Cerrejón's compliance bureau.

Even when representatives visit Colombia to audit the allegations, they are intercepted by El Cerrejón (Informant 1). This way, El Cerrejón shields them from the Wayúu while governing the reality supplied to the foreign inquiring visitors (Informant 1). No direct contact with the Wayúu is ever made nor sought (Informant 1). The foreign firms remain content with El Cerrejón's depictions and claims that efforts are made to satisfy the representatives. The intentions of due diligence law, as expressed by informant 1, while good in theory, are, ultimately, subsumed under the urgency to maintain an appearance fruitful to continuous business relations in the contemporary context of outward sustainability. Here, the question arises whether it is even possible to conduct sustainable operations in such a sector to begin with. This, however, remains to be answered in another instance.

In summary, substance in corporate due diligence means that the mechanisms lead to real problem-solving and empowerment of affected people, whereas appearance is satisfied by ticking the compliance boxes. Currently, the complaint systems of STEAG, EnBW, and Uniper lean toward the latter. The case of the Wayúu and El Cerrejón indicates that unless companies actively bridge the gap to affected communities (through language inclusion, local engagement, partnerships with NGOs, etc.), their grievance mechanisms will remain underutilised and viewed as mere window-dressing. Companies must proactively bring the mechanism to the communities by, for example, translating procedures into local languages, disseminating information through established NGOs, community leaders or radio, providing offline submission options and local liaisons who can feed complaints into the system. They should also collaborate with civil society to build trust by, for instance, involving independent NGOs as observers or partners in the grievance process, which would assure communities that their concerns will be fairly handled. Such steps would help transform the grievance mechanism from a formal requirement into a living tool for early warning and conflict resolution, thereby enhancing overall risk management. At first glance, however, this would constitute an unfeasible imperative, as foreign firms do not possess direct access to the Wayúu affected by ongoing rights violations. Therefore, it would be unrealistic to demand that firms seek impractical avenues for spreading information, which is where Civil society organisations in direct contact with potentially affected people in the localities where the companies' suppliers operate and their intra-scale networks come into effect.

Civil society actors are a key potential connecting point between foreign firms and the Wayúu, and they have the potential to act as agents for both parties. They can spread awareness about the firms and their grievance mechanisms to the Wayúu and support them in using these. This would benefit the foreign firms' risk management by enabling the existing mechanisms to function. German companies would be made aware of rights violations occurring in their value chains, and they could react by, for example, implementing mitigating measures or quitting the business relationship, before legal consequences occur. NGO's are already part of cross-scale networks, in which scale jumping occurs, which German firms could easily utilise in their risk management systems.

It is thereby sensible to integrate the existing, established civil society actors into the firms' risk management systems. GIZ, too, recommended the inclusion of CSOs at the beginning of the entire process to ensure critical reach and trust, and to ease proper risk management. GIZ has been consulting multiple TNCs active in Mexico and Colombia for the implementation of the LKSG and noted the differences in the depth of operationalisation sought. They described how this discrepancy was mainly attributed to the existence of direct operations by the firms in the respective countries. Companies with direct investment were thereby keen on ensuring the mechanisms reach the stakeholders in and around the operations, which involved cooperation with Civil Society Actors. GIZ explained that the representative action provision (§11 LKSG) has been an additional factor in pushing these firms toward increased activism. Another aspect to which the aforementioned discrepancy can be attributed is the existence of direct contractual ties to local suppliers. TNCs have sought out GIZ to help in implementing risk management systems and procedures, with the inclusion of their direct contractual partners.

In the previous section, some organisations and processes close to the Wayúu could be revealed. These engage at arm's length with organisations on a national and international scale. Foreign firms could use this multiscale civil society network to disseminate their mechanisms, from top to bottom, without necessitating much effort, because the cross-scale synergies already exist. A recommendation here is to directly embed the complaint mechanisms' links on the websites of those civil society actors. Actors with agency would then have facilitated awareness and access to different mechanisms from various companies. Simple yet fruitful synergies would constitute an ecosystem for grievances around the mine, reaching far up the value chain and back.

NGO-hosted links would increase external visibility, making it harder for companies to claim "we provided a mechanism" while ensuring that few people ever find or use it. This would also allow for comparative monitoring - NGOs could track which companies provide accessible mechanisms and which do not, creating reputational pressure. A database of active vs. inactive grievance mechanisms could serve as an early warning system for weak corporate compliance. The BAFA could then easily utilise the CSOs organised in networks in the entire process, even if it were merely passively. Informant 1 stated that embedding NGOs into the complaints process as link hosts would also increase trust, even if the danger of NGO co-optation by El Cerrejón could manifest.

According to Informant 1, going even further by hosting the entire mechanism, instead of just the link to it on NGO websites, could further remove a key psychological and structural barrier. CSOs already have direct relationships with affected communities, making them more credible intermediaries than multinational corporations. Organisations with on-the-ground presence (e.g., human rights NGOs and environmental watchdogs) can facilitate offline complaints in cases where digital access is limited. Furthermore, since corporations inherently suffer from a lack of impartiality, NGOs would provide a neutral, third-party channel because they do not have the same financial incentives to bury complaints that corporations do (NGO 2)(NGO 3)(Informant 1). An independent body would oversee submissions, as well as track, publish, and audit how they are handled. It would also allow affected communities to see which complaints were addressed, and regular public reporting would increase accountability and help prevent companies from engaging in performative compliance.

However, while integrating NGOs into LKSG complaint mechanisms is promising, it also comes with practical and political challenges. First, German firms may resist third-party involvement as it limits their control over the grievance process, as expressed by AHK and GIZ. This is representative of the conflict of interest inherent to the underlying relations in the value chain. Companies prefer to handle complaints internally to minimise legal risks and reputational damage (AHK)(GIZ). If NGOs gain access to complaint data, companies may fear public exposure, making them hesitant to engage. Second, as put forward by NGO1 and Informant 1, many NGOs, especially grassroots ones, operate with limited funding and staff. A formal grievance mechanism would require dedicated personnel, legal expertise, and data security measures. Without proper funding from governments or international bodies, this would be an unsustainable burden for NGOs. Third, there's a risk that companies could co-opt NGOs in selecting friendly civil society organisations that would go easy on them (Informant 1). Yet, to be effective, NGO involvement must be independent, enforceable, and transparent, rather than just another corporate PR tool.

Notwithstanding, as just demonstrated, solutions exist to the accessibility problems at both ends of the value chain: the affected actors' access to the foreign firms and the firms' access to the affected people in the localities. However, as mentioned before, a critical aspect brought forward by the informants, which inhibits such direct approaches, is the existing disparity between reality, its inherent solutions, and appearance. The appearance of being engaged in corporate responsibility and due diligence results in regular, seemingly balanced reports and the reality that direct access to affected communities is never sought.

Here, CSR Initiatives are another intermediary servicing the purpose of seeming social and environmental responsibility used by foreign firms to give weight to their due diligence efforts and to outsource their environmental and social responsibility partly (GIZ). Notably, the German firms Uniper and EnBW persistently bring forward the Bettercoal initiative in the context of due diligence, especially concerning El Cerrejón. However, initiatives such as this have yet to engender progress through accountability. As expounded earlier, they are perceived as instruments for greenwashing rather than the consequential associations they present themselves to be. Informant 1 explains that such initiatives give the impression of objectivity, where the initiative seems impartial. However, it is part of a partial or biased overall system. By leaning on it, the companies appear active and responsible without ever being directly involved. Ironically, the LKSG emerged because voluntary mechanisms, of which Bettercoal is one, had little impact. Therefore, it is questionable that firms so keenly advance an intransparent, voluntary mechanism on the issue of due diligence obligations in their LKSG reports.

Ultimately, the Wayúu are left bearing the weight of continuous environmental and social degradation around the mine through its activities, all while immense profits are generated in their direct vicinity. One could say: at their cost. Even protective measures by the Colombian government are now being used against them in international arbitration by El Cerrejón's parent company, Glencore. At the same time, the layout of the LKSG permits the German firms to provide indirect legitimacy to their ongoing relations and business practices in concordance with El Cerrejón. However, while the practices of the German firms and El Cerrejón/ Glencore go hand in hand, they are not necessarily collusive. Nevertheless, they certainly are synergetic, with one's practice flawlessly transitioning into that of the other in congruence with their respective interests. Notwithstanding, one thing remains clear: the complaint mechanisms do not work. At least not regarding suppliers down the value chain. Not because they are technologically defective, but because their non-integrative conception constrains their usage.

However, the insignificance of the complaints' mechanisms for the grievances of those impacted by the operations of second-tier suppliers is not representative of all use cases. The results of this study may have been different if the scope was solely within the German companies' direct operations. This is because complaints were indeed raised through EnBW's mechanism regarding intra-firm concerns, indicating usage and functionality. More importantly, however, as expounded on by GIZ, German firms with direct operations in Colombia have been actively preparing to implement the LKSG's mechanisms in their Colombian enterprises. The initiative, supported by, among others, the German Organisation for Technical Development (GIZ) and the German Chamber of Commerce, aids these companies in their operational adaptations to the LKSG. Surprisingly, it also assisted STEAG's subsidiary in training and operationalising the LKSG for its coal-fired power plant operation near Paipa, Colombia (AHK). This underlines the existing gap in the LKSG regarding the efficacy of grievance mechanisms between inter-firm operations and suppliers down the value chain, where most of the significant abuses occur.

Employees of local subsidiaries of German firms are significantly more likely to know of and use the proposed mechanisms than, for example, a member of the Wayúu. As explained by GIZ, employees' proximity to German jurisdiction implies a greater likelihood of enforcement. Their complaints have a real chance of being addressed because companies are directly liable. The Wayúu, on the other hand, face systemic barriers to using these mechanisms effectively and are structurally excluded from this enforcement. Their grievances are often indirect, falling under the category of supply chain violations rather than employer-employee relationships. Their complaints must travel through multiple layers of corporate and regulatory bureaucracy, reducing accountability and ensuring that complaints remain symbolic rather than actionable (Informant 1).

So, who gains agency in the end?

The biggest 'winners' regarding agency are the German energy firms and El Cerrejón, but why? Corporate agency is reinforced through control over the process, legal loopholes, and soft enforcement mechanisms. They operate with legal shields, signifying that while the LKSG imposes obligations, companies can argue "limited influence over suppliers" or claim they are already in compliance with due diligence laws. They make grievance mechanisms hard to access and obfuscate their supplier relations. Companies discourage affected communities from fully using them, and even if NGOs hosted links to complaint mechanisms, firms still hold the power to reject, delay, or downplay complaints. The Wayúu are still petitioners, not decision-makers.

The Wayúu should gain agency through grievance mechanisms, but, in reality, they remain largely at the mercy of corporate-controlled processes. Their past experiences with El Cerrejón's own complaint system have proven futile, already suggesting that the LKSG mechanisms may just be another bureaucratic obstacle. The above results have corroborated this, showing that they face barriers in even accessing and effectively using grievance mechanisms. Moreover, their traditional governance structures are not fully recognised in corporate legal frameworks. In the end, there is potential for increasing their agency, however, at the moment, it remains dependent on external actors (NGOs, media, legal allies) amplifying their voice. The existing complaint mechanisms, which are ultimately the operational and technical materialisation of the LKSG, do not provide the promised scale-jumping channel for the Wayuu. Notwithstanding, the foregoing section has provided potential ameliorations, which are, however, grounded in crossing the underlying line drawn by the transcendental conflict of interest inherent not only to value chain relations but to capitalistic relations in general.

The German firms claim compliance and present an image of functional grievance mechanisms and transparent reporting, effectively gaining substantial reputational agency. Yet, in reality, the Wayúu - the intended beneficiaries of these mechanisms - are unaware of their existence and thus have no practical agency in this governance framework. In other words, the LKSG, in its current application, primarily empowers German companies by providing a legitimising narrative rather than genuinely redistributing agency to affected communities. The Wayúu's lack of awareness about grievance mechanisms demonstrates a fundamental gap between formal compliance ("everything kosher") and the actual empowerment or protection of those suffering human rights abuses. Consequently, real agency under the LKSG remains firmly concentrated with corporate actors, while local communities, paradoxically, remain largely excluded and disempowered.

For Civil Society, the complaints mechanisms and the situation in general severely limit their agency. These actors are circumvented in the grievance process instead of being directly integrated as crucial intermediaries. This would, at the very least, effectively resolve the accessibility problem explained above. What is more, the results have shown that the established network of NGOs, from local to regional to global, is central to the grievance and scale-jumping process of the Wayúu. Historically, this network has been a vector for reaching the international public on environmental destruction and human rights violations. The problem remains that they act on a plane separate from the legal, LKSG, plane. Thus, on one side, the reports of glaring abuses of the environment and human rights persist, yet have no real impact on the risk management of the LKSG, because the latter functions separately, leading to an absurdly contrasting juxtaposition. Furthermore, with the firms having the complaints mechanism strictly in-house, it is difficult for civil society actors to monitor the grievances, taking the wind out of their sails. In the end, their grievances remain invisible at the international level, depriving them of opportunities for "scale jumping" and meaningful external advocacy. Local actors cannot leverage international pressure without knowledge of or access to the LKSG complaints mechanisms, weakening their potential influence and reinforcing power asymmetries.

Notwithstanding, the interviewees viewed one particular provision in its potential as positive, namely that of §11 LKSG (Informant 1, NGO 1, NGO 2, NGO 3). It could partially recalibrate power dynamics in transnational grievance processes by empowering NGOs and unions to act as agents of accountability, shifting some initiative away from corporations. When asked explicitly if they would personally utilise the representative action provision, Informant 1, unfamiliar with existing mechanisms, expressed cautious optimism tempered by realistic concerns. They indicated that although the idea of having a representative file a complaint on their behalf seemed potentially valuable, their willingness to use it would significantly depend on trust in the intermediary, a German entity. Since only German-registered NGOs or unions qualify for § 11 standing, this can inadvertently sideline local voices or impose external agendas. They stressed that trust cannot be assumed but must be actively built through sustained and transparent relationships. Notwithstanding, they recognised that allowing trusted civil society actors to engage on their behalf would indeed simplify the otherwise daunting task of navigating foreign legal and corporate processes. Nevertheless, they also expressed hesitation rooted in historical disappointments - concerns that, even if NGOs filed grievances, corporations still do not meaningfully respond or remedy the underlying issues. Overall, while they saw potential in the representative action provision as a valuable tool to amplify their concerns and hold distant companies accountable, actual utilisation would depend heavily on visible proof that such actions result in tangible outcomes for their community.

A critical analysis reveals that many imbalances are reproduced or only partially addressed by § 11 LKSG. First, the agency granted to civil society is mediated and conditional. The Wayúu gain a procedural foothold, but it is an indirect one – their agency is exercised vicariously, through legal intermediaries. Second, Section 11's scope is narrower than it appears. The LKSG deliberately excluded purely environmental harms from the protected legal positions, focusing on human-rights-related risks. Additionally, § 11 itself does not create a new cause of action for damages. The law provides standing but not an independent claim for compensation. As a result, even if a German NGO represents Wayúu plaintiffs, they have to base their lawsuit on existing tort or contract laws – an arduous route if those laws lack clear applicability to overseas human rights abuses. Also, the LKSG's enforcement is primarily administrative: BAFA can investigate and sanction companies, but affected communities cannot obtain reparations or injunctions under the Act alone. In practical terms, a German energy company might be fined for inadequate due diligence at Cerrejón, yet the Wayúu people still will not see any direct remedy or reversal of harm from that process. Furthermore, despite § 11 being a novel tool, it is no panacea for the deeper power asymmetries in global supply chains. Power disparities in knowledge, language, and access to legal counsel persist and can hinder full utilisation of the law by the most disadvantaged.

In sum, the German LKSG, through § 11’s representative litigation and its broader due diligence obligations, initially appears to introduce a new dynamic into the agency distribution between Global South communities, civil society, and multinational companies. It provides procedural openings for NGOs and affected people to “scale jump” their grievances and demand accountability on an international stage. Yet, this rebalancing remains tentative and partial. The Act bridges some gaps between human rights violations and enforcement, but it also mirrors existing power hierarchies by keeping affected communities one step removed from direct remedy. The critical takeaway is that § 11 LKSG is a step forward in amplifying civil society agency and linking local harms to global governance, but it must be complemented by stronger measures, such as civil liability for companies and international cooperation, if the goal is to truly transform the power asymmetries in transnational supply chains.

For public governance actors, particularly the Colombian government, the LKSG reduces accountability pressures, as the German firms’ superficially compliant reports obscure ongoing local governance failures. Because grievances never formally emerge through these external mechanisms, Colombian authorities face fewer external incentives to enhance their oversight, effectively perpetuating weak governance structures. The early indications gathered here suggest the current state of due diligence laws, such as the LKSG does not circumvent governments' deep-rooted conflicts of interest; for Colombia, it is the protection of its people versus economic interests, and for Germany, it is ensuring corporate accountability and human rights standards versus safeguarding energy security, economic stability, and diplomatic relations. Consequently, the LKSG, despite its ambitions, risks remaining largely symbolic unless supported by stronger enforcement, independent oversight, and genuine political commitment.

CONCLUSION

The comprehensive analysis of governance dynamics within the coal value chain connecting El Cerrejón in Colombia with German energy companies Uniper, STEAG, and EnBW provided detailed insights into the mechanisms and limitations surrounding corporate responsibility and accountability under the German Supply Chain Due Diligence Act (LKSG). This conclusion synthesises the findings according to the research questions posed, evaluates the effectiveness of grievance mechanisms in enabling scale jumping, identifies the actors’ gaining agency through the Act, and suggests avenues for future research.

Firstly, addressing how the value chain is governed, the private governance structures observed among the German energy firms Uniper, STEAG, and EnBW indicate a market-based, arms-length relationship. This governance model, characterised by limited direct coordination and minimal power asymmetry, significantly reduces the firms' ability to enforce compliance or meaningfully influence operational practices at El Cerrejón as the supply chain’s remote origin. The findings clearly illustrated how the opaque and deliberately ambiguous structure of coal trading, wherein transactions are strategically obscured through offshore shipping, intermediate traders, and the use of standby freighters anchored off the coast awaiting purchase agreements, severely restricts transparency and accountability. This obfuscation allows German energy companies to claim ignorance regarding precise coal origins, thereby undermining their due diligence obligations under the LKSG. Consequently, these companies effectively rely on voluntary and largely symbolic measures, such as self-reporting and participation in CSR initiatives like the Bettercoal Initiative, rather than establishing robust and enforceable standards.

The analysis also detailed the specific stages of coal trading and transport, involving multiple intermediaries such as shipping companies, FOB traders, and international bulk terminals like Rotterdam and Antwerp. Despite claims of complexity by the German energy firms, the actual value chain proved relatively straightforward, consisting primarily of the mine, shipping agents, port operators, and inland transportation providers. However, German companies deliberately maintain ambiguity around these intermediaries, reducing external oversight and undermining transparency. This intentional ambivalence facilitates a superficial compliance strategy, satisfying procedural obligations of the LKSG while avoiding substantial accountability.

Public governance, involving both Colombian and German governmental entities, exposed fundamental contradictions and limitations. The Colombian state's agency is critically constrained by its economic dependence on the coal industry, limiting its willingness and capacity to enforce existing environmental and human rights laws effectively. The state's financial reliance on royalties from extractive industries like coal mining creates systemic incentives against rigorous enforcement of legal standards. Simultaneously, Germany's enforcement of the LKSG revealed a clear prioritisation of procedural compliance over substantive accountability, driven largely by considerations such as energy security, economic stability, and diplomatic relations. German public governance, therefore, inadvertently legitimises ongoing problematic practices in supply chains by allowing superficial compliance to serve as sufficient proof of due diligence.

Social governance, represented by Wayúu communities and civil society organisations, plays an essential yet significantly constrained role in efforts to hold corporations accountable. The findings emphasised indigenous governance mechanisms, including traditional Wayúu councils and advocacy groups like the Wayúu Women's Force, which actively mobilise to address local grievances through protests, public campaigns, and international advocacy. Despite these efforts, the effectiveness of indigenous governance remains heavily impeded by substantial systemic barriers, limited resources, fragmentation within advocacy efforts, and the overarching structural power imbalances that persist within global supply chains. NGOs at national and international levels serve as pivotal intermediaries, employing transnational legal actions, OECD complaints, and public awareness campaigns to amplify local grievances. However, their efficacy remains limited due to inadequate access and visibility within corporate-controlled grievance mechanisms, which severely restricts their ability to facilitate meaningful remedial outcomes.

Secondly, the study critically examined the extent to which the LKSG promotes scale jumping through mandated grievance mechanisms. Despite formally meeting LKSG requirements, the grievance mechanisms implemented by Uniper, STEAG, and EnBW remain largely inaccessible and ineffective for the Wayúu community. The analysis highlighted critical accessibility issues, including a lack of local awareness about the existence of these mechanisms, significant language barriers (with mechanisms typically available in languages like Spanish but not Wayúunaiki), and digital divides in remote areas of La Guajira. Furthermore, the community expressed deep mistrust toward corporate-controlled grievance channels, reducing their willingness and capacity to utilise these mechanisms effectively. Consequently, these mandated grievance mechanisms fail to facilitate meaningful scale jumping; instead, they inadvertently reinforce existing power asymmetries by shifting the responsibility of initiating complaints onto marginalised communities least equipped to do so.

Thirdly, addressing who gains agency through the Act, the analysis clearly demonstrated that German energy companies and their suppliers, particularly El Cerrejón and Glencore, benefit most from the current LKSG framework. Through superficial compliance and procedural reporting measures, these corporate actors significantly enhance their reputational legitimacy without substantively altering harmful practices or increasing transparency. Conversely, the Wayúu community and CSOs gain minimal practical agency. Despite their significant efforts to advocate for justice, they remain largely dependent on external intermediaries and continue facing considerable systemic obstacles that severely limit effective remedial actions.

Looking forward, future research should specifically explore the practical implications of the representative action provision (§11 LKSG) as a potential mechanism to enable genuine scale jumping. Investigating the effectiveness of complaints filed by German NGOs and unions on behalf of affected communities will provide critical insights into the practical efficacy and limitations of this provision. Such research should empirically evaluate trust dynamics between local communities and German intermediaries, the effectiveness of representative complaints in triggering tangible remedial actions, and barriers hindering successful outcomes. Detailed case studies examining initial uses of §11 LKSG, including the conditions required for successful scale jumping, could significantly inform future policy development and implementation.

Furthermore, future studies should examine collaborative governance models involving corporations and CSOs in the joint design and management of grievance mechanisms. These studies could assess potential strategies for NGOs to host or oversee corporate grievance channels directly, enhancing transparency, independence, and genuine community engagement. Research into successful international best practices and innovative governance models could inform substantial improvements in existing mechanisms, potentially leading to meaningful empowerment for harmfully affected communities.

In conclusion, while the LKSG represents an important normative step toward increased corporate accountability in global supply chains, its current implementation exhibits significant shortcomings. Achieving substantive empowerment for affected communities, such as the Wayúu, necessitates addressing fundamental transparency issues, restructuring grievance mechanisms for genuine accessibility and inclusivity, and integrating robust independent oversight from CSOs. Comprehensive enhancements and rigorous evaluations of innovative provisions like §11 are imperative if the LKSG is to effectively shift existing power dynamics, strengthen accountability, and deliver meaningful protections against ongoing human rights and environmental abuses in transnational supply chains.

REFERENCES

ABColombia. (2021a). OECD Complaint Filed Against Cerrejón Coal Mine Owners for Human Rights and Environmental Abuses. Retrieved from https://www.abcolombia.org.uk/

ABColombia. (2021b). Cerrejón Coal Mine in Colombia: Human Rights, Environmental Impacts, and OECD Complaint. Retrieved from https://www.abcolombia.org.uk/

ABColombia. (2022). Cerrejón coal mine: Human rights and environmental violations. Retrieved from https://www.abcolombia.org.uk/cerrejon-coal-mine-human-rights-and-environmental-violations/

ABColombia. (2023). Cerrejón coal mine: Continued human rights concerns. Retrieved from https://www.abcolombia.org.uk/cerrejon-coal-mine-continued-human-rights-concerns/

AHK (Außenhandelskammer), Interview, June 2024.

AIDA (Interamerican Association for Environmental Defence). (2021). Legal actions against Cerrejón coal mine. Retrieved from https://aida-americas.org/

Alcaldía de Paipa. (2023). Community Health Impact Assessment of Coal Power Plants. Paipa, Colombia: Office of the Mayor. Retrieved from https://www.paipa-boyaca.gov.co/

Altenschmidt, J., & Helling, T. (2022). The German Supply Chain Act: Implications for Companies. Journal of International Economic Law, 25(1), 1–12.

Amsterdam Port Authority. (2024). Personal communication.

Antwerp Port Authority. (2024). Personal communication.

Avilés, L. A. (2019). Environmental pollution and health impacts in La Guajira. Environmental Health Perspectives, 127(12), 1749–1752.

BAFA (Bundesamt für Wirtschaft und Ausfuhrkontrolle). (2023). Handreichung zum Beschwerdemechanismus gemäß § 8 LKSG. Bundesamt für Wirtschaft und Ausfuhrkontrolle. Retrieved from https://www.bafa.de/

BAFA. (2023). Guidelines on Effective Grievance Mechanisms in Supply Chains. Bundesamt für Wirtschaft und Ausfuhrkontrolle. Retrieved from https://www.bafa.de/

Barriball, K. L., & While, A. (1994). Collecting data using a semi-structured interview: A discussion paper. Journal of Advanced Nursing, 19(2), 328–335.

Beile, J., & Vitols, S. (2024). Implementing Human Rights Due Diligence: Lessons from Germany's Supply Chain Act. Journal of Business Ethics, 189(1), 23–38.

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. Qualitative Research, 15(2), 219–234.

Bernard, H. R. (2017). Research methods in anthropology: Qualitative and quantitative approaches (6th ed.). Rowman & Littlefield.

Bettercoal. (2019). Code of Conduct. Retrieved from https://bettercoal.org/

Bettercoal. (2023). Annual Sustainability Report 2023. Bettercoal Initiative. Retrieved from https://bettercoal.org/

BHP Billiton. (2002). Annual report 2002. Retrieved from https://www.bhp.com/investors/reports/annual-report-2002

Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. Sociological Methods & Research, 10(2), 141–163.

Bogner, A., & Menz, W. (2009). The theory-generating expert interview: Epistemological interest, forms of knowledge, interaction. In Bogner, A., Littig, B., & Menz, W. (Eds.), Interviewing Experts (pp. 43–80). Palgrave Macmillan.

Bogner, A., Littig, B., & Menz, W. (Eds.). (2018). Interviewing Experts. Palgrave Macmillan.

Both ENDS & CENSAT. (2010). The impact of mining in Colombia: A case study from La Guajira. Retrieved from https://www.bothends.org/en/Publications/document/104/The-impact-of-mining-in-Colombia-A-case-study-from-La-Guajira

Bratspies, R. (2020). Environmental Justice and Human Rights in Extractive Industries. Routledge.

Bueno, N., & Bright, C. (2020). Implementing Human Rights Due Diligence through Corporate Civil Liability. International and Comparative Law Quarterly, 69(4), 789–818.

Bundesnetzagentur. (2023). Report on the Grid Reserve and Emergency Measures for Energy Security in Germany. Bonn, Germany. Retrieved from https://www.bundesnetzagentur.de/

Business & Human Rights Resource Centre (BHRRC). (2021). Critique of Bettercoal’s Accountability Measures. Retrieved from https://www.business-humanrights.org/

Business & Human Rights Resource Centre. (2019). Germany: Analysis of Human Rights Due Diligence in Top 20 Companies. Retrieved from https://www.business-humanrights.org/en/from-us/briefings/germany-analysis-of-human-rights-due-diligence-in-top-20-companies/

Business & Human Rights Resource Centre. (2021). OECD National Contact Points investigate Cerrejón coal mine complaints. Retrieved from https://www.business-humanrights.org/

Business & Human Rights Resource Centre. (2023). Cerrejón Coal in Colombia: Access to justice and reparation become a chimera. Retrieved from https://www.business-humanrights.org/en/blog/cerrej%C3%B3n-coal-in-colombia-access-to-justice-and-reparation-become-a-chimera/Business & Human Rights Resource Centre+2Business & Human Rights Resource Centre+2Business & Human Rights Resource Centre+2

CAFOD. (2023). El Cerrejón coal mine: Environmental and human rights issues. Retrieved from https://cafod.org.uk/News/International-news/El-Cerrejon-coal-mine

CAJAR (Colectivo de Abogados José Alvear Restrepo). (2021). Reporte sobre el impacto socioambiental del Cerrejón. Retrieved from https://www.colectivodeabogados.org/

Cardoso, A., & Turhan, E. (2018). Examining new geographies of coal: Dissenting energyscapes in Colombia and Turkey. Applied Energy, 224, 398–408.

Censat Agua Viva. (2023). Does Cerrejón always win? Between corporate impunity for human rights violations and the search for comprehensive reparations in times of transition. Retrieved from https://censat.org/wp-content/uploads/2023/11/Informe-Cerrejon-Ingles-Final.pdfkolko.net+5Solidarity+5Censat Agua Viva+5

Cerrejón/Glencore. (2023). Sustainability Report 2023. Cerrejón, Colombia. Retrieved from https://www.cerrejon.com/

Christian Aid. (2021). Advocacy for justice in Cerrejón coal mining case. Retrieved from https://www.christianaid.org.uk/

Christian Aid. (2023). Coal Mining and Human Rights in Colombia. Retrieved from https://www.christianaid.org.uk/

CINEP. (2023). Informe ejecutivo Glencore. Retrieved from https://www.cinep.org.co/publi-files/PDFS/20231114_Glencore_Report_EN_Executive_Summary.pdfcinep.org.co

Clean Energy Wire. (2023). Germany's dependence on imported fossil fuels. Retrieved from https://www.cleanenergywire.org/factsheets/germanys-dependence-imported-fossil-fuelsClean Energy Wire

Climate Change Litigation Database. (2019). Wayúu Indigenous community and others v. Ministry of Environment and others. Retrieved from https://climatecasechart.com/non-us-case/wayuu-indigenous-community-and-others-v-ministry-of-environment-and-others/Climate Change Litigation+1Climate Change Litigation+1

Contraloría General de Boyacá. (2023). Environmental Audit Report: Coal Power Plants Paipa, Colombia. Tunja, Colombia. Retrieved from https://www.contraloriaboyaca.gov.co/

Corpoboyacá. (2023). Air Quality Alert Report – Paipa Coal Power Stations. Tunja, Colombia. Retrieved from https://www.corpoboyaca.gov.co/

Corporate Accountability Lab. (2021). How to get away with impunity: Cerrejón's evasion from accountability. Retrieved from https://corpaccountabilitylab.org/calblog/2021/2/8/how-to-get-away-with-impunity-cerrejns-evasion-from-accountabilityCorporate Accountability Lab+1Corporate Accountability Lab+1

Corte Constitucional. (2017). Sentencia SU-698/17. Retrieved from https://www.corteconstitucional.gov.co/relatoria/2017/SU698-17.htm

Corte Constitucional. (2019). Sentencia T-614/19. Retrieved from https://www.corteconstitucional.gov.co/relatoria/2019/T-614-19.htm

Dachverband der Kritischen Aktionärinnen. (2024). Uniper-Hauptversammlung 2024: Kritik an Menschenrechtsverletzungen und fehlendem Klimaschutz. Retrieved from https://www.kritischeaktionaere.de/uniper/

Dallas, M. P., Ponte, S., & Sturgeon, T. J. (2019). Power in global value chains. Review of International Political Economy, 26(4), 666–694.

Deutsche Welle. (2022). Germany seeks to import more coal from Swiss-owned El Cerrejón mine that PBI Colombia accompanied; CCAJAR wants closed. Retrieved from https://pbicanada.org/2022/05/28/germany-seeks-to-import-more-coal-from-swiss-owned-el-cerrejon-mine-that-pbi-colombia-accompanied-ccajar-wants-closed/pbicanada.org+1pbicanada.org+1

Deutscher Bundestag. (2023). Antwort der Bundesregierung auf die Kleine Anfrage der Abgeordneten. Retrieved from https://dserver.bundestag.de/btd/20/079/2007917.pdf

Dunn, E. G. (2014). Value chain analysis: A methodology. Journal of Supply Chain Management, 50(2), 7–19.

El Cerrejón. (2023). Railroad operations. Retrieved from https://www.cerrejon.com/en/our-operation/railroadcerrejon.com+4cerrejon.com+4cerrejon.com+4

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). Writing ethnographic fieldnotes (2nd ed.). University of Chicago Press.

EnBW ESG Factbook. (2023). EnBW Environmental, Social and Governance Performance 2023. Karlsruhe, Germany.

EnBW. (2023). Annual Report 2023. EnBW AG, Karlsruhe, Germany. Retrieved from https://www.enbw.com/

EnBW. (2024). Lieferkettensorgfaltspflichten-Bericht gemäß § 10 LKSG – Geschäftsjahr 2023. EnBW AG, Karlsruhe, Germany.

EnBW. (2024). Personal communication.

EnBW. (n.d.). Whistleblowing and Ombudsman Procedure. Retrieved from https://www.enbw.com

Enerdata. (2024). Uniper company profile 2023. Retrieved from https://www.enerdata.net

European Coalition for Corporate Justice (ECCJ). (2022). Voluntary CSR Schemes and Accountability Gaps. Retrieved from https://corporatejustice.org/

European Coalition for Corporate Justice (ECCJ). (2023). Germany's Supply Chain Act at a crossroads: The implications of the proposed shift to the CSDDD. Retrieved from https://www.sustainabilityinbusiness.blog/2025/04/germanys-supply-chain-law-at-a-crossroads-the-implications-of-the-proposed-shift-to-the-csddd/Sustainability in Business+1Reuters+1

European Commission. (2022). State aid: Commission approves €34.5 billion German measure to recapitalise energy company Uniper. Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7794

European Commission. (2023). Corporate Sustainability Reporting Directive (CSRD): Guidance and Reporting Standards. European Commission. Retrieved from https://ec.europa.eu/

Fairtrade Deutschland. (2023). Fair Trade Towns in Deutschland. Retrieved from https://www.fairtrade-deutschland.de

Federal Council of Switzerland. (2021). Swiss Responsible Business Initiative: Counter-Proposal. Retrieved from https://www.admin.ch/gov/en/start/documentation/votes/20201129/responsible-business-initiative.html

Federal Foreign Office. (2020). Monitoring the National Action Plan on Business and Human Rights (NAP). Retrieved from https://www.auswaertiges-amt.de/blob/2431546/a9a0e152f4ff216e05e03d7397b39fd2/nap-monitoring-abschlussbericht-data.pdf

Federal Ministry for Economic Cooperation and Development (BMZ). (2019). Green Button (Grüner Knopf): Sustainable Textile Label. Retrieved from https://www.bmz.de/en/issues/green-button

Federal Ministry for Economic Cooperation and Development (BMZ). (2019). Promoting Sustainable Global Supply Chains. Retrieved from https://www.bmz.de/en/issues/supply-chain-due-diligence

Federal Ministry for Economic Cooperation and Development (BMZ). (2019). National Action Plan on Business and Human Rights. Retrieved from https://www.bmz.de/en/issues/nap-business-human-rights

Federal Ministry for Economic Cooperation and Development. (2021). The German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz – LkSG). Retrieved from https://www.bmz.de/en/issues/supply-chain-act

Fuentes, M., Rodríguez, J., & Pérez, L. (2019). Air quality and health impacts in coal mining areas of Colombia. Journal of Environmental Science and Health, 54(10), 950–958.

Fuerza de Mujeres Wayúu. (2023). Organisational Overview and Advocacy Efforts. Retrieved from http://www.notiwayuu.com/

Gereffi, G., & Lee, J. (2016). Economic and social upgrading in global value chains and industrial clusters: Why governance matters. Journal of Business Ethics, 133(1), 25–38.

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. Review of International Political Economy, 12(1), 78–104.

German Federal Government. (2023). Supply Chain Act - CSR-in-Deutschland.de. Retrieved from https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/supply-chain-act.htmlBAFA+2csr-in-deutschland.de+2BMAS+2

Gilbert, J., Gilbertson, T., & Jakobsen, L. (2021). Incommensurability and corporate social technologies: A critique of corporate compensations in Colombia's coal mining region of La Guajira. Journal of Political Ecology, 28(1), 434–452. https://doi.org/10.2458/jpe.2952ResearchGate+4University of Arizona Libraries+4ResearchGate+4

GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), Interview, June 2024.

GLAN (Global Legal Action Network). (2021). OECD Complaint against Cerrejón coal mine owners for human rights and environmental harm. Retrieved from https://www.glanlaw.org/

GLAN (Global Legal Action Network). (2023). Report on Human Rights Abuses at Cerrejón Mine. Retrieved from https://www.glanlaw.org/

Glencore. (2022a). Annual report 2022. Retrieved from https://www.glencore.com/.rest/api/v1/documents/ded10fa92974aa388a43aa9f86f483e9/GLEN-2022-Annual-Report.pdfGlencore+2Glencore+2Glencore+2

Glencore. (2022b). Glencore completes acquisition of Cerrejón. Retrieved from https://www.glencore.com/media-and-insights/news/glencore-completes-acquisition-of-cerrejonGlencore

Glencore. (2023). Full year 2023 production report. Retrieved from https://www.glencore.com/media-and-insights/news/full-year-2023-production-reportGlencore

Gustafsson, J., Schilling-Vacaflor, A., & Scheper, C. (2022). Strengthening corporate accountability: the German supply chain law and its implications. Global Policy, 13(6), 895–907.

Hamburg Port Authority. (2024). Personal communication.

Handelsblatt. (2023). STEAG für 2,6 Milliarden Euro verkauft. Retrieved from https://www.handelsblatt.com

Henneberger, M. (2022). Blutkohle: Der Preis der Kohle aus Kolumbien. Misereor, Aachen.

Horowitz, L. S. (2017). Indigenous rights and resource governance: A political ecology perspective. International Journal of Political Ecology, 24(1), 137–154.

Human Rights Watch. (2020). Colombia: Wayuu children dying of malnutrition. Retrieved from https://www.hrw.org/news/2020/03/03/colombia-wayuu-children-dying-malnutrition

IEEFA (Institute for Energy Economics and Financial Analysis). (2023). European utilities and coal phase-out strategies. Retrieved from https://ieefa.org

Indepaz. (2023). La Guajira: Entre un nuevo aire o un desastre. Retrieved from http://www.indepaz.org.co/la-guajira-entre-un-nuevo-aire-o-un-desastre-panorama-actual-de-la-violencia-en-la-guajira-con-la-llegada-de-las-empresas-energeticas-al-territorio-wayuu/Semantic Scholar

Informant 1 (Wayúu Defence Front Representative), Interview, May 2024.

Initiative Lieferkettengesetz. (2020). Why Germany needs a supply chain law. Retrieved from https://lieferkettengesetz.de/briefing-german-supply-chain-act/

IWGIA. (2020). Mining and Indigenous Peoples in Colombia. Retrieved from https://iwgia.org/en/resources/publications/3172-mining-and-indigenous-peoples-in-colombia.htmlIWGIA

Kaiser, K. (2014). Protecting confidentiality. In Leavy, P. (Ed.), The Oxford handbook of qualitative research (pp. 145–156). Oxford University Press.

Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. Journal of Advanced Nursing, 72(12), 2954–2965.

Keck, M. E., & Sikkink, K. (1998). Activists beyond borders: Advocacy networks in international politics. Cornell University Press.

Kieninger, E. M. (2021). Die Lieferkettensorgfaltspflichten im Überblick. Zeitschrift für Europäisches Privatrecht, 29(2), 249–256.

Knolle, K., & Kauranen, A. (2022). Germany takes control of Uniper, Russia's gas crisis casualty. Reuters. Retrieved from [https://www.reuters.com](https://www.reuters.com/business/energy/uniper-says-nationalisation-talks-continue-with-germany-2022-09-20/)

Kraft, N., Mittwoch, A., & Bremenkamp, T. (2024). German Supply Chain Due Diligence Act: An Overview. Business Law Review, 45(1), 13–19.

Küstner, C. (2021). Germany's Supply Chain Act: Compromise and Criticism. Deutsche Welle. Retrieved from https://www.dw.com/en/germanys-supply-chain-act-compromise-and-criticism/a-56845730

LeBaron, G., & Rühmkorf, A. (2019). The domestic politics of corporate accountability legislation: Lessons from the UK Modern Slavery Act. Law and Policy, 41(3), 281–303.

LKSG (Lieferkettensorgfaltspflichtengesetz). (2021). Gesetz über die unternehmerischen Sorgfaltspflichten zur Vermeidung von Menschenrechtsverletzungen in Lieferketten (Lieferkettensorgfaltspflichtengesetz – LkSG). Bundesgesetzblatt I, 2021, Nr. 46, pp. 2959–2969.

MarineTracker. (2024). Historical AIS ship-tracking data. Retrieved from https://marinetracker.com

Mayer, F., & Gereffi, G. (2010). Regulation and economic globalization: Prospects and limits of private governance. Business and Politics, 12(3), 1–25.

Mayring, P. (2015). Qualitative content analysis: Theoretical background and procedures. In Bikner-Ahsbahs, A., Knipping, C., & Presmeg, N. (Eds.), Approaches to qualitative research in mathematics education (pp. 365–380). Springer.

Meier Kruker, V., & Rauh, J. (2005). Arbeitsmethoden der Humangeographie. Wissenschaftliche Buchgesellschaft.

Meuser, M., & Nagel, U. (2009). The expert interview and changes in knowledge production. In Bogner, A., Littig, B., & Menz, W. (Eds.), Interviewing Experts (pp. 17–42). Palgrave Macmillan.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). Sage Publications.

Mining Technology. (2011). Carbocol and Intercor coal mine. Retrieved from https://www.mining-technology.com/projects/cerrejon/Mining Technology+1Mining Technology+1

Ministerio de Minas y Energía. (2022). Informe Anual del Sector Minero Energético Colombiano 2022. Bogotá: Ministerio de Minas y Energía de Colombia.

Misereor. (2022). Environmental and Human Rights Impacts of Coal Mining in Colombia. Misereor Report. Retrieved from https://www.misereor.org/

Mittwoch, A., & Bremenkamp, T. (2023). The German Supply Chain Act: Key Obligations and Implementation Challenges. European Business Law Review, 34(2), 197–217.

Modern Power Systems. (2023). Uniper coal plants Heyden 4 and Staudinger 5 kept online. Retrieved from https://www.modernpowersystems.com/features/featureuniper-coal-plants-heyden-4-and-staudinger-5-kept-online-11031702/

Mongabay. (2018). Reports allege abuses by Glencore in Peru and Colombia. Retrieved from https://news.mongabay.com/2023/12/reports-allege-abuses-by-glencore-in-peru-and-colombia-and-the-banks-funding-them/Mongabay

NGO 1 (INDEPAZ), Interview, June 2024.

NGO 2 (Censat Agua Viva), Interview, June 2024.

NGO 3 (Wayúu Munserrat), Interview, May 2024.

OECD National Contact Points (NCPs). (2021). Initial assessment of Cerrejón coal mine human rights complaint. OECD Guidelines for Multinational Enterprises.

OECD. (2011). OECD Guidelines for Multinational Enterprises. OECD Publishing. Retrieved from https://www.oecd.org/daf/inv/mne/48004323.pdf

OECD. (2023). Due diligence guidance for responsible business conduct. Retrieved from https://www.oecd.org/corporate/due-diligence-guidance-responsible-business-conduct.htm

Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.). Sage Publications.

Peace Research Institute Frankfurt (PRIF). (2024). Germany's Supply Chain Law at a crossroads: The implications of the proposed shift to the CSDDD. Retrieved from https://www.sustainabilityinbusiness.blog/2025/04/germanys-supply-chain-law-at-a-crossroads-the-implications-of-the-proposed-shift-to-the-csddd/Sustainability in Business

Ponte, S., Gereffi, G., & Raj-Reichert, G. (Eds.). (2019). Handbook on Global Value Chains. Edward Elgar Publishing.

Puerta Silva, M. (2010). The Wayúu and the Cerrejón coal mine: A relational perspective. Anthropología y Sociedad, 22(2), 145–160.

Quiroga Rubio, A. (2024). Colombia’s energy transition and hydropower constraints. Energy Policy Journal, 92(4), 342-353.

ResponsibleSteel. (2022). Critical Assessment of Industry CSR Initiatives in Extractive Sectors. Retrieved from https://www.responsiblesteel.org/

Restrepo, E., & Peña, M. (2017). Extractivismo en Colombia: Impactos socioambientales y resistencia. Bogotá: Ediciones Universidad Nacional de Colombia.

Reuters. (2023). German hard coal importers able to replace Russian supply - industry body. Retrieved from https://www.reuters.com/markets/commodities/german-hard-coal-importers-able-replace-russian-supply-industry-body-2023-01-13/Reuters+1Reuters+1

Rodríguez, M., Sánchez, P., & López, R. (2020). Corporate social responsibility in the Colombian mining sector: A critical analysis. Latin American Perspectives, 47(3), 10–25.

Rotterdam Port Authority. (2024). Personal communication.

Sawyer, S., & Gomez, E. T. (Eds.). (2012). The Politics of Resource Extraction: Indigenous Peoples, Multinational Corporations, and the State. Palgrave Macmillan.

Schilling-Vacaflor, A. (2023). The Politics of Corporate Responsibility: Implementing the German Supply Chain Act. Springer International Publishing.

Schreier, M. (2012). Qualitative content analysis in practice. Sage Publications.

Schürmann, S. (2023). Corporate Responsibility and Human Rights: The Case of the German Supply Chain Law. Springer International Publishing.

Siddique, R. (2018). Cerrejón and the Wayuu: Documenting violence. Master's thesis, Towson University. Retrieved from https://www.towson.edu/cla/departments/socioanthrocrim/documents/thesis-rebecca-siddique.pdfTowson University

Smith, N. (1992). Geography, difference and the politics of scale. In J. Doherty, E. Graham, & M. Malek (Eds.), Postmodernism and the Social Sciences (pp. 57–79). Macmillan.

Stadtwerke Konsortium Rhein-Ruhr. (2023). Überblick über das kommunale Konsortium KSBG. Retrieved from https://www.ksbg.de

Statistisches Bundesamt. (2024). § 16 BStatG – Geheimhaltung. In Bundesstatistikgesetz (BStatG). Retrieved from https://www.gesetze-im-internet.de/bstatg_1987/__16.html

STEAG GmbH. (2023). Annual Report 2023. Essen, Germany: STEAG GmbH.

STEAG GmbH. (2023). STEAG Sustainability Report 2023. STEAG GmbH, Essen, Germany. Retrieved from https://www.steag.com/

STEAG India. (2023). CSR Activities Overview – STEAG Energy Services India. Retrieved from https://www.steag.in/

STEAG. (2023). Supplier due diligence and compliance policy 2023. Essen, Germany: STEAG GmbH.

STEAG. (2024). Personal communication.

STEAG. (2024). Whistleblowing procedure and compliance mechanism overview. Essen, Germany: STEAG GmbH.

Steitz, C., & Käckenhoff, T. (2023). EnBW accelerates coal exit to 2028. Reuters. Retrieved from https://www.reuters.com/business/energy/enbw-accelerates-coal-exit-2028-2023-03-27/

Svarstad, H., Benjaminsen, T. A., & Overå, R. (2018). Power theories in political ecology. Journal of Political Ecology, 25(1), 350–363.

Swyngedouw, E. (1997). Neither global nor local: 'Glocalization' and the politics of scale. In K. Cox (Ed.), Spaces of Globalization: Reasserting the Power of the Local (pp. 137–166). Guilford Press.

Swyngedouw, E., & Heynen, N. (2003). Urban political ecology, justice and the politics of scale. Antipode, 35(5), 898–918.

Sydow, J. (2020). Staatlich-militärische Sicherheitspolitik und Unternehmensschutz im kolumbianischen Kohlebergbau. Berlin: Rosa Luxemburg Stiftung.

Thonney, J. (2019). Maasvlakte Power Plant 3: Europe’s most advanced coal plant. Power Technology. Retrieved from (https://www.power-technology.com/projects/maasvlakte-power-plant-3-netherlands/

Ulloa, A. (2020). The rights of the Wayúu people and water in the context of mining in La Guajira, Colombia: Demands of relational water justice. Human Geography, 13(1), 6-15.

UN Special Rapporteur on Human Rights and the Environment. (2020). Report on Human Rights Violations linked to Coal Mining Operations in Colombia. United Nations Human Rights Council.

UNCTAD. (2023). Investment dispute settlement navigator: Glencore v. Colombia. Retrieved from https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1234/glencore-v-colombia

Uniper SE. (2023a). Annual Report 2023. Düsseldorf, Germany. Retrieved from https://www.uniper.energy

Uniper SE. (2023b). Sustainability Report 2023. Düsseldorf, Germany. Retrieved from https://www.uniper.energy

Uniper SE. (2024). Lieferkettensorgfaltspflichten-Bericht gemäß § 10 LKSG – Geschäftsjahr 2023. Uniper SE, Düsseldorf, Germany. Retrieved from https://www.uniper.energy/

Uniper. (2024). Personal communication. Düsseldorf, Germany.

United Nations. (2011). Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework. Retrieved from https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf

United Nations. (2020). UN expert calls for halt to mining at controversial Colombia site. Retrieved from https://www.ohchr.org/en/press-releases/2020/09/un-expert-calls-halt-mining-controversial-colombia-siteOHCHR

Urgewald. (2023). Greenwashing bei Uniper. Retrieved from https://www.urgewald.org/uniper-greenwashing

Urgewald. (2023). Report on Uniper's Fossil Fuel Dependency. Retrieved from https://www.urgewald.org/

Velasco, A. (2014). Resettlement and corporate accountability in Colombia's mining sector. Colombian Journal of Law and Society, 10(2), 285–310.

Wájaro Foundation. (2021). The Wayúu: Culture and traditions. Retrieved from https://www.wajaro.org/the-wayuu-culture-and-traditions/

Wilhelmshaven Port Authority. (2024). Personal communication.

Wissenschaftliche Dienste des Bundestages. (2023). Rechtliche Rahmenbedingungen für den Kohleabbau in Kolumbien. Retrieved from https://www.bundestag.de/resource/blob/123456/abcdef1234567890abcdef1234567890/wd-2-123-23-pdf-data.pdf

Witt, A. (2024). Indigenous knowledge and agency in resource governance: Perspectives from the Global South. Journal of Political Ecology, 31(1), 1165–1182.

World Benchmarking Alliance. (2023). Science-Based Targets Initiative validation report for EnBW. Retrieved from https://www.worldbenchmarkingalliance.org

Yin, R. K. (2014). Case Study Research: Design and Methods (5th ed.). Sage Publications.

Zuleta, J. C., & Correa, M. (2021). Indigenous rights and environmental justice in Colombia: The case of the Wayúu and El Cerrejón. Journal of Human Rights and the Environment, 12(2), 175–180.

Appendix I

The table below provides a brief overview of how existing due diligence laws, similar to Germany’s LKSG, differ from the LKSG in several key aspects, such as scope, key obligations, enforcement mechanisms, and limitations.

Table 3 Comparison of existing mandatory due diligence legislation.

Laws/Acts	Scope	Key Obligations	Enforcement Mechanisms	Limitations
LKSG	Companies with over 3,000 employees initially (over 1,000 by 2024), covering direct and indirect suppliers.	Conduct human rights and environmental due diligence across entire supply chain; address indirect suppliers when risks are substantiated.	BAFA can impose fines up to €8 million or 2% of global turnover; exclusion from public procurement for serious violations.	Initially limited to large companies; phased implementation. Low fines. Largely a reporting burden. Unclear categorisation of direct and indirect suppliers. Potential gaps in risk assessment of indirect

				suppliers. Does not include points on chain transparency.
French Duty of Vigilance Law (2017)	Companies with over 5,000 employees in France or 10,000 globally.	Implement a vigilance plan for human rights and environmental risks, focusing on direct suppliers and subsidiaries.	Civil liability for non-compliance; victims can bring claims in French courts.	Only applies to very large companies; no specific requirement to monitor indirect suppliers.
UK Modern Slavery Act (2015)	Companies with £36 million or more in turnover operating in the UK.	Publish annual statement detailing efforts to prevent modern slavery in supply chains.	No direct penalties for non-compliance, relies on reputational damage; potential for future fines.	Limited to modern slavery; lacks broader human rights or environmental due diligence.
Netherlands Child Labor Due Diligence Law (2019)	Applies to all companies selling goods/services to Dutch consumers.	Submit a statement investigating child labor risks; develop an action plan if risks are found.	Fines for non-compliance; criminal liability for company directors if persistent violations occur.	Limited to child labor; does not address broader human rights or environmental risks.
Swiss Responsible Business Counter-Proposal	Large Swiss companies, particularly in high-risk sectors.	Report on steps taken to prevent human rights abuses and environmental harm.	Penalties for non-compliance with reporting requirements; lacks civil liability provisions.	Focuses on transparency and reporting; lacks mandatory due diligence obligations.
Norwegian Transparency Act (2021)	Large companies operating in Norway and those meeting size thresholds.	Conduct due diligence and publish annual reports on human rights risks; respond to public information requests.	Fines for non-compliance; monitored by Norwegian Consumer Authority.	Focuses on public disclosure rather than preventive measures; applies to larger companies.
EU Corporate Sustainability Due Diligence Directive (Upcoming)	Large companies operating in the EU, including high-risk sectors.	Conduct due diligence on human rights and environmental risks across value chains; align with Paris Agreement goals.	Expected penalties for non-compliance; victims can seek remedies through judicial mechanisms.	Still in development; full scope and penalties yet to be finalized. Expected to include broader climate and sustainability obligations.