Co-opted energy transitions: Coal, wind, and the corporate politics of decarbonization in Colombia

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Abstract
Latin America has long been a key site of resource extraction, acting as a sacrifice zone for the Global North's fossil fuel needs. Now, the region is pushing for an "energy transition" by opening its own electric grid to renewable sources. Using a case study from La Guajira, in Northeastern Colombia, we argue that energy corporations are appropriating and deploying the concept of energy transitions to fashion themselves as climate conscious, post-extractive, and environmentally caring actors. Based on ethnographic evidence from coal mining and wind energy companies, we argue that the corporate co-optation of the energy transition agenda plays out in public narratives and representations, environmental projects, and community relations. Drawing on insights from the political ecology of energy transitions and low-carbon infrastructures, we contend that corporate transition agendas are more than smoke and mirrors; they are tangible and consequential processes that perpetuate environmental conflicts, sustain forms of "green" accumulation, and foreclose the possibility of a just transition. In unraveling the competing yet entangled agendas of coal and wind companies, this article renders visible the continuities between fossil fuels and renewable energy in Latin America and beyond.
Keywords: energy transition, low-carbon infrastructures, corporate power, Latin America, climate change

Résumé
L'Amérique latine a longtemps été une zone de sacrifice pour répondre aux besoins en combustibles fossiles du Nord. Mais une "transition énergétique" est en cours, avec l'entrée des énergies renouvelables dans le mix énergétique. À La Guajira, dans le nord-est de la Colombie, les entreprises du secteur de l'énergie utilisent le concept de transition énergétique pour se présenter comme des acteurs soucieux du climat et de l'environnement dans une ère post-extractive. Sur la base d'une étude ethnographique des entreprises d'extraction de charbon et d'énergie éolienne, nous soutenons que la cooptation par les entreprises de l'agenda de la transition énergétique est visible dans les récits et représentations publics, ainsi que dans les projets et les relations avec les communautés. Les programmes des entreprises sont des processus tangibles et conséquents qui perpétuent les conflits environnementaux, soutiennent des formes d'accumulation "verte" et excluent la possibilité d'une transition énergétique juste. L'article met en évidence les continuités entre les combustibles fossiles et les énergies renouvelables en Amérique latine et au-delà. Il existe des agendas concurrents et enchevêtrés entre les entreprises de charbon et d'énergie éolienne.
Mots-clés: transition énergétique, infrastructures à faible teneur en carbone, pouvoir des entreprises, Amérique latine, changement climatique

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[1] **Transiciones energéticas cooptadas: Carbón, viento y la política corporativa de la descarbonización en Colombia**.
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Resumen

América Latina ha sido históricamente un sitio clave de extracción de recursos naturales, constituyendo una zona de sacrificio para satisfacer las necesidades de combustibles fósiles del norte global. Ahora, la región está promoviendo una "transición energética" que busca incorporar fuentes renovables a su red eléctrica. A través del estudio de caso de la Guajira, en el noreste de Colombia, sostenemos que las corporaciones energéticas se han apropiado del concepto de transición energética y lo utilizan para constituirse como agentes post-extractivos, conscientes del cambio climático y preocupados por el medio ambiente. Con base en evidencia etnográfica de empresas dedicadas a la minería de carbón y la energía eólica, mostramos cómo la cooptación corporativa de la agenda de transición energética se manifiesta en narrativas y representaciones públicas, espacios ambientales y relaciones comunitarias. Basado en debates concernientes a la ecología política de las transiciones energéticas y las infraestructuras bajas en carbono, argüimos que las transiciones energéticas corporativas son más que meras apariencias: constituyen procesos tangibles y consecuentes que perpetúan conflictos ambientales, sostienen formas de acumulación "verde" y obstaculizan la posibilidad de transiciones justas. Al estudiar las agendas—a la vez antagónicas y entrelazadas—de las compañías de carbón y eólicas, visibilizamos la continuidad entre los combustibles fósiles y la energía renovable en América Latina y más allá.

Palabras clave: transición energética, infraestructuras bajas en carbono, poder corporativo, América Latina, cambio climático

1. Introduction: an ambivalent transition

On January 21, 2022, Colombia's former president, Iván Duque, inaugurated with great fanfare the Guajira 1 Wind Farm. In a televised speech, he explained how La Guajira's wind had become a virtuous resource capable of mitigating climate change, luring foreign capital, and propelling the country toward a low-carbon future. "For many years," he said, "the wind [of La Guajira] was […] a force of adversity that made it impossible to grow certain crops or for other conventional industries [to develop]. But we now realize that Colombia can dream of a new form of energy. And that we can connect this new form of energy with the country's desire to reach carbon neutrality." The opening of Guajira 1 – a 20 MW project comprising 14 turbine towers – reflected the steady growth of "renewables" in Colombia, which, as he promised, would go from accounting for 0.2 percent of the electric grid to nearly 20 percent by 2023.[2]

What the national public was less likely to see, however, was that the inauguration took place at a focal point of Colombia's coal mining industry. The new wind farm was located less than 10 km from the largest coal mining port in the country (Puerto Bolívar). Behind Duque's stage, maritime vessels navigated slowly along the coast, waiting to load the 80,000 metric tons of coal (the mine's daily output) for global markets. Coal's enduring presence was also noticeable in the particles that tainted the surrounding vegetation, the soil, and even the white turbines, a feature that both of us have witnessed throughout our ethnographic engagements. Additionally, Guajira 1's operation relied heavily on the coal mine's private roads (to move workers and equipment), port facilities (to store the imported blades), and high-voltage power lines (amid the absence of new power lines). Just as the entanglement with coal was omitted from the picture, Duque also elided local communities' protests, who had criticized ISAGEN's (the company invested in the project) preoccupation with protecting investment returns rather than integrating Indigenous visions of just transitions (centered on tackling inequality, food insecurity, and environmental degradation). Thus, while this state spectacle was meant to praise Colombia's green energy future, it ended up revealing at once the prominence of coal mining in the country's transition landscape, as well as the privileged place of green capitalist logics and corporate transition agendas over local visions of energy development.

This scene unfolded in La Guajira, a region of 8,000 square miles (20,720 km^2) located in Colombia's most northeastern point. A mix of coastal desert, fertile valleys, and mountain ranges, the peninsula juts into the Caribbean Sea and shares a porous border with Venezuela. Two-thirds of Colombia's natural gas and over forty percent of its coal exports come from this area (González Posso & Barney, 2019: 38). The fertile southern and central valleys are dominated by the Cerrejón Coal Company mine (referred to hereafter as Cerrejón), visible in the six massive open pits expanding across the broader tropical dry forest that Afro-descendant,

[2] "Presidente Iván Duque en la entrega del Parque Eólico Guajira 1, en el corregimiento de Uribia." YouTube, uploaded by Presidencia de la República – Colombia, Jan 21, 2022, https://www.youtube.com/watch?v=ilMCWVnCBtk.

peasant, and Wayúu communities have long used for hunting, fishing, herding, and small-scale agriculture.[3] The northern, coastal, and more arid portions of the peninsula have recently become intensive sites of wind energy investment. Seventeen transnational and Colombian companies are designing and, in some cases already building, fifty-seven wind farms (valued at over US$ 6 billion), with an estimated 2,800 turbines that will mostly sit on constitutionally protected Wayúu land (González Posso & Barney, 2019; Ulloa, 2023). Although coal mining has devastated local communities to provide energy for the Global North, state and corporate actors now view La Guajira as an emergent "green" energy hub, capable of delivering low-carbon electricity to the rest of Colombia and helping the region "transition" toward a decarbonized future (Figure 1).

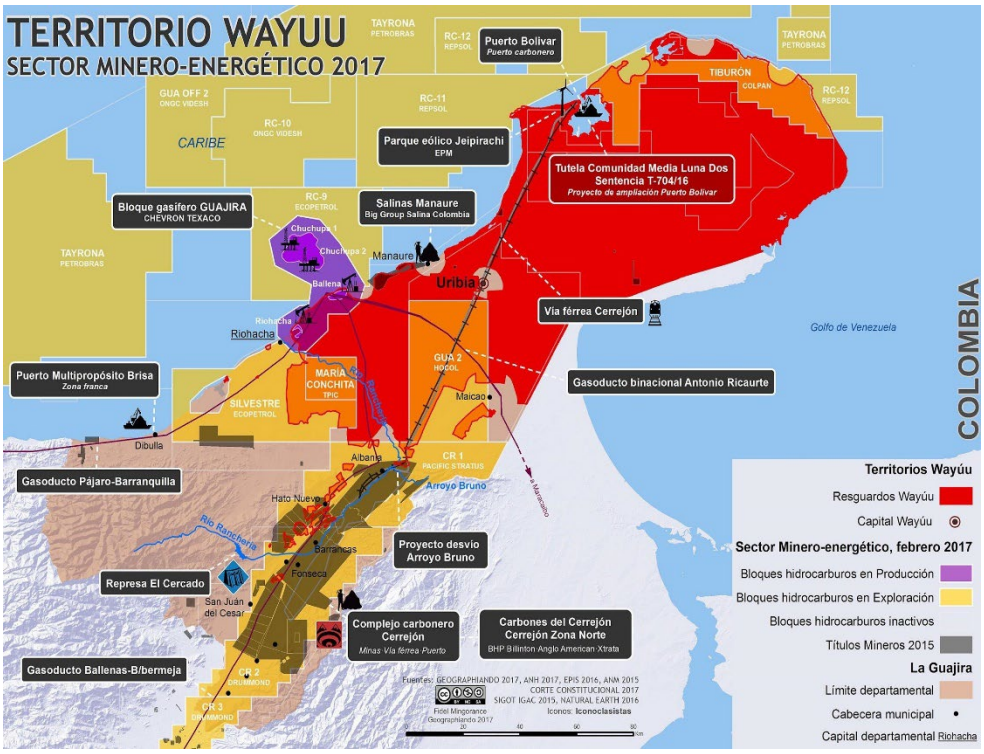

Figure 1: La Guajira showing mining, gas, and wind energy areas, as well as recognized Wayúu Indigenous territories. (Source: CENSAT)

This article explores the disparate ways in which coal mining and wind energy companies conceptualize the idea of energy transition in Colombia. Drawing on long-term and multi-sited ethnographic research, we analyze how these entities imagine, visualize, and enact contrasting transition agendas that allegedly pursue a common low-carbon future. While coal mining executives emphasize their investments in carbon offsets (carbon capture projects to compensate for carbon emissions) that supposedly deliver local benefits and environmental care, wind energy workers conceive of the energy transition as a radical break from the infrastructural design of mining (e.g., the latter's enclosed, polluting, and highly securitized spaces). By ethnographically tracing these two competing yet entangled agendas, we argue that energy corporations are co-opting, appropriating, and deploying the concept of the energy transition to fashion themselves as environmentally caring, post-extractive, and climate conscious actors. These tactics not only rearrange corporate-community relations on the ground but also sustain and open new resource-based forms of "green"

[3] The Wayúu are the largest Indigenous people in Colombia and Venezuela (with ca. 380,000 people in Colombia, DANE, 2021 cited in Ulloa, 2023). While a growing number of them live in small cities on both sides of the border, most have their homes in the hundreds of smaller, rural communities that overlap with coal mining and wind farming areas.

accumulation amidst growing calls for climate action (Buller, 2022). Rather than aligning with calls for "just transition" that foregrounds socioeconomic justice (Aronoff *et. al.,* 2019; Newell & Mulvaney, 2013), degrowth (Hickel, 2020; Dunlap & Riquito, 2023), decolonization (LaDuke & Cowen, 2020; Tornel, 2023) or communal energy futures (Siamanta, 2021), energy companies in La Guajira craft divergent though invariably market-driven plans of how the energy transition ought to develop. Such corporate articulations do little to unsettle the capitalist underpinning of low-carbon infrastructures (Dunlap & Laratte, 2022), but also end up delimiting the kinds of environmental, economic, and political futures that are possible (rendering inevitable the continuous presence of fossil fuel and green energy capital in achieving Colombia's climate targets). Hence, corporate transition agendas not only reinforce the connections between fossil fuels and renewable energy (Dunlap, 2021; Dunlap & Marin, 2022) but also foreclose the possibility of building an actual transition – not just an addition of sources (York & Bell, 2019) – in terms other than extractive capitalism.

In the next section, we situate our intervention within debates on the political ecology of energy transitions, low-carbon infrastructures, and corporate power. We then briefly discuss our methodological approach. Subsequently, we contextualize the place of La Guajira in national and global circuits of natural resource extraction and renewable energy development. Following this, we examine Cerrejón's reliance on conservation and reforestation projects as one instance of the corporate co-optation of the transition agenda. We then contrast this approach with wind energy's idea of transition, which is framed as a shift towards a new kind of post-extractive spatial and infrastructural order (rather than an actual displacement of fossil fuels). We conclude by examining the broader implication of these corporate transition agendas and the barriers they pose for materializing local, alternative visions of just transitions in Colombia beyond corporate and state desires.

2. The political ecology of energy transitions, low-carbon infrastructures, and corporate power

The climate crisis and the rapid expansion of renewable technologies have stirred critical conversations on the political ecology of energy transitions, low-carbon infrastructures, and their mutual entanglement with corporate power (Martínez-Alier, 2006; Zografos & Robbins, 2020).

Political ecology of energy transitions

Energy transitions constitute "historically recurring process[es] by which societies at various scales replace one energy source with another" (Kingsbury, 2020: 562). For many observers, tackling the current climate crisis requires undertaking the most rapid energy transition in history – not simply an addition to, but a *replacement* of fossil fuels (Bonneuil & Fressoz, 2016). According to the IPCC (Allen *et al*., 2018), this means attaining 80% zero-emission energy by 2023 and 100% by 2050. Yet, as York & Bell (2019) have noted, the recent growth of renewable energy technologies has not meaningfully displaced fossil fuels (see also Dunlap, 2023). Moreover, since energy transitions are intertwined with global political and economic power relations (Newell & Philips, 2016), these undertakings can also leave untouched the socio-environmental processes that created the climate crisis in the first place (Howe & Boyer, 2019). Indeed, recent scholarship has revealed how, under the guise of climate action, states and private actors often seize land and exert other forms of domination over resource-rich geographies (Batel, 2020; Cantoni & Rignall, 2019; Franquesa, 2018; Dunlap, 2019; Curley, 2018).

Energy transitions are not merely technical or environmental reconfigurations, they are also imaginations of the future (Harris & Santos, 2023; Howe, 2019; Kingsbury, 2020). Today, one dominant approach is centered on "green" capitalism, which advocates for technological fixes that can cut greenhouse emissions and expand energy production *without* altering current levels of consumption or the socioeconomic status quo (Buller, 2022). While capitalism is at the heart of the climate crisis, this transition framework supports the "idea of the market as an unassailable standard operating procedure of global politics" (Kingsbury, 2020: 563). From this angle, the climate crisis has the potential of opening new "green" frontiers of accumulation and commodification that do little to reduce carbon emissions, all the while excluding low-income and marginalized populations (Huber, 2022; Dunlap, 2023; Siamanta, 2017: 260). Against these market-based solutions, others have contended that energy transitions must foreground socio-environmental justice imperatives (Aronoff *et. al.,* 2019; Malm, 2021). This approach calls for moving away from developmentalism (Escobar, 2018) and

growth (Hickel, 2020) and looks instead at how energy transitions can address the uneven distribution of violence and the layers of injustice tied to carbon capitalism (Tornel, 2023; LaDuke & Cowen, 2020). Such variegated understandings render energy transitions visible as processes constituted by power and contestation (Avila-Calero, 2017).

Though branded as a transition, the proliferation of low-carbon projects in Colombia is also an *addition* to the energy grid rather than a substitution for fossil fuels. Coal mining and wind energy companies project themselves into the future by appearing as actors committed to environmental care, climate action, and post-extractive futures. Instead of replacing fossil fuels, democratizing access to electricity, or sustaining the future livelihoods of Indigenous, Afro-descendant, and rural communities, the corporate meaning of transition is reduced to either conservation (in the case of the carbon offsets promoted by Cerrejón) or the promise of a post-extractive spatialization of wind energy infrastructures (i.e., the notion that turbines will somehow avert environmental and human harm; Schwartz, 2021). Such models obstruct alternative visions of transition by inextricably fusing climate action *with* carbon or "green" capitalism.

Low-carbon infrastructure

The "greenwashing" of the transition is not just discursive but also material and infrastructural (Dunlap & Riquito, 2023).[4] Indeed, numerous interventions have recently scrutinized the contentious nature of low-carbon infrastructures for harnessing wind, solar, hydro, and geothermal energy (Franquesa, 2022; Sovacool *et. al.*, 2020; Sovacool, 2021; Brock *et. al.*, 2021; Siamanta, 2017, 2021), especially as these arrangements mimic or intertwine with fossil fuels (i.e., the "renewable energy-extraction nexus," Dunlap & Brock, 2021). As Verweijen & Dunlap (2021) note, this can create a sort of "green extractivism" that operates in direct (i.e., through the harm instilled by renewables technologies on forests, waterways, or animal habitats) or indirect ways (e.g., through the socio-environmental violence associated with the forms of mineral extraction, manufacturing, transportation, operation, and discarding of these technologies) (Brock *et. al.*, 2021; Lennon, 2021; Voskoboynik & Andreucci, 2022).

Under the logic of "green extractivism," low-carbon infrastructures tend to undervalue local environmental, social, and economic concerns, leading to forms of dispossession, exclusion, and violence (Powell, 2018; Dunlap, 2019; Fairhead *et. al.,* 2012). At the same time, they unleash competing attempts to govern, regulate, and control energy resources, perpetuating an uneven distribution of benefits and costs across groups and regions (Cavanagh & Benjaminsen, 2017). This infrastructure extends colonial logics across energy systems and technologies (Batel & Devin-Wright, 2017; LaDuke & Cowen, 2020) by reproducing divides across "center" and "periphery", urban and rural landscapes (Batel & Küpers, 2023), "worthy and unworthy rural areas" (Franquesa, 2022: 19-20), and life and non-life (Tornel 2023; Dunlap & Arce, 2022). This is visible in spaces like Mexico's Isthmus of Tehuantepec, which has become a battleground where Indigenous and peasant communities have resisted the corporate expansion of wind power (Avila-Calero 2017; Dunlap, 2017) to the controversial Desertec project that sought to assemble wind farms and solar farm in North Africa and the Middle East to provide electricity to Europe (Batel & Devine-Wright, 2017). All this stresses why popular initiatives in Europe and the U.S. like the Green New Deal risk producing new "green sacrifice zones" (Zografos & Robbins, 2020: 543).

By tracing the corporate transition agendas in La Guajira, we demonstrate that these forms of "infrastructural colonization" (Dunlap, 2020) operate in discursive, spatial, and aesthetic terms. Coal mining and wind energy companies have long mobilized narratives and representations (Ulloa, 2023) to advance their aims and justify their continued existence. Yet, what seems distinct in La Guajira is that these tropes are less driven by an overt "insensitivity toward habitats, nonhuman entities, and people themselves" (Dunlap, 2020: 14; Franquesa, 2022), or by an ecomodernist promise of electricity or development (Dunlap & Arce, 2022). Neither is there a necropolitics that seeks to eliminate some forms of life and sociality (Batel & Devine-Wright 2017; Batel & Küpers, 2022, 2). Instead, corporate transition agendas seem to be predicated ideologically on a

[4] Greenwashing is a process that authorizes corporate actors to accumulate capital and encroach upon land while keeping a stance of ecological accountability towards the public good (Cantoni & Rignall, 2019; Vikström, 2020).

return to the pristine landscapes that *preceded* coal mining, or perhaps a valorization of *future* Indigenous life that will allegedly remain undisrupted by large-scale wind farms. Even if grounded in tropes like these of ecological care and cultural vitality, these low-carbon infrastructures can still be spredatory (LaDuke & Cowen, 2020). Indeed, this production of futurity "function[s] as strategies to reproduce extractive industries," as they create a "temporal enclosure" that propels these operations into the future while erasing alternative possibilities (Jaramillo & Carmona, 2022: 12, 14).

Anthropology of corporations

We draw on the anthropology of corporations to untangle how energy companies adapt to the growing calls for climate action (Welker *et al.,* 2011; Welker, 2014). Corporations have the potential to create discourses, practices, and material transformations (Shever, 2012), often in ways that deflect criticism and beget profits (Benson & Kirsch, 2010). In fact, corporate governance technologies, such as Corporate Social Responsibility (CSR), Free, Prior, and Informed Consent (FPIC), or Environmental Impact Assessments (EIA), are regularly used to engineer the consent of local communities, safeguard extractive operations, and compensate (often inadequately) for socio-environmental damage (Gilbert *et. al*., 2021; Owen & Kemp, 2017; Puerta Silva & Carmona Castillo, 2020). While such instruments constitute a softer, less physically coercive domain of power that targets local subjectivities and depoliticizes local populations (Bebbington, 2010; Frederiksen & Himley, 2020; Banks, 2017; Fletcher, 2017), they often operate in tandem with more explicit forms of violence (Verweijen & Dunlap 2021). These corporate governance technologies offer critical insights into why communities might support conservation or renewable energy developments that diminish their control over those same resources (Asiyanbi *et. al*., 2019: 128).

Corporations' transition agendas in La Guajira – as we elaborate in the following sections – are not mere marketing campaigns directed at middle-class consumers in the Global North or at political elites in Colombia, but a set of everyday discourses, infrastructural arrangements, and environmental interventions with tangible effects for local communities. The co-option of transition discourses is not just an instance of how companies are able to respond to their critics (Dunlap & Fairhead, 2014; Gilbert *et. al.*, 2021; Kirsch, 2014), but how the embrace of the language of care toward certain ecologies and Indigenous lifeworlds can reassert – rather than displace – the role of extractive capitalism on a warming planet (Jaramillo & Carmona, 2022: 17). Ethnography of the corporate form sheds light on how energy companies consolidate and authenticate their power.

3. A critical ethnography of energy transitions: methodology

Our ethnographic data stems from extensive research in two regions of La Guajira. Author Banks has been conducting fieldwork since 2013 in the southern region of the peninsula, the location of Cerrejón's open-pit coal mine. Author Schwartz has carried out fieldwork in the upper Guajira since 2017, mostly studying the projects of Green Horizons – a subsidiary of a U.S. energy conglomerate that is building six wind farms on Wayúu land. Both of us have spent a combined 36 months living and working with communities impacted by these projects, as well as researching corporate sites such as the Office for the Empowerment of Wayúu Communities of Green Horizons, the CRS offices of Cerrejón, and corporate-sponsored events (in La Guajira, Bogotá, and Medellín). During this time, we carried out a combined 48 semi-structured interviews with workers – using snowball sampling – and conducted long-term, "multi-sited" (Marcus, 1995) participant observations across sites adjacent to the Cerrejón mine or future wind farms. Additionally, we draw on publications, videos, social media, corporate documents, and public relations materials that feature how companies communicate to the local and national public their transition agendas. All names in this article – excluding those of public figures, organizations, and coal mining executives – are pseudonyms.

Rather than conducting a joint ethnographic study or "duograph" (Howe & Boyer, 2019) – i.e., doing field research and engaging interlocutors together – our collaboration took place at the level of analysis by sharing and generating new insights from our ethnographic materials on coal and wind through our distinct experiences and positionalities (Korsby & Stravrianaki, 2021). This approach enables us to analyze the energy transition landscape of La Guajira comprehensively, tracing the unexpected articulations between decentralized local wind farms and highly centralized global coal networks (Calvert *et. al.*, 2019), and between "conventional

and green extractivism" (Verweijen & Dunlap, 2021: e6). We also view our collaboration as a form of "climate ethnography" (Goodman, 2018) that attends to how energy corporations in the Global South appropriate climate policies and anti-extractivist discourses.

Indeed, instead of tracing the socio-environmental conflicts tied to fossil fuels or "green" energy, we opt for "studying up" (Nader, 1974 [1969]) corporate transition plans. As such, our analysis privileges the fertile terrain of meaning production, expert knowledge, social engineering, and infrastructural design that is at the heart of corporate transition agendas (Silvast & Virtanen 2019). Drawing on Verweijen & Dunlap (2021) and Wilson (2018), we see this approach as an attempt to critically unpack the corporate inner workings that frequently remain hidden from affected communities and activist organizations. Yet, in doing so, this article leaves aside grassroots perspectives and traditions of resistance against coal mining or wind power, which both of us have explored elsewhere (Banks 2017; Schwartz 2021). The history of Indigenous and Afro-descendant activism against coal mining (see Banks 2020; Chomsky *et. al.*, 2007) or the Indigenous critiques and stoppages against wind turbines (Guerra Curvelo & Schwartz, 2023; Jaramillo, 2012; Ulloa, 2021, 2023) are just two examples that underscore the fragility of these corporate ends. Such grassroots movements in La Guajira have and will continue to refuse these top-down agendas.

4. Framing energy transitions in La Guajira

Genealogies of extractivism

The place of coal and wind in La Guajira must be understood against the backdrop of a long history of extractivism defined by episodes of bonanza and crises, from the colonial removal of pearls to more recent ventures around coal mining and offshore natural gas. As Wayúu anthropologist Guerra Curvelo (2007) notes, the region has been a site of protracted (settler-) colonial utopias driven largely by the abundance of natural resources. Capturing those resources has resulted in territorial dislocation as well as physical and environmental violence, especially against Indigenous and Afro-descendant groups. Most of the peninsula falls within the territory of the Wayúu, who currently exercise jurisdiction over 21 *resguardos* (or constitutionally protected reserves).[5] The region is also the homeland of Afro-descendant communities who can trace their ancestry back to enslaved Africans who escaped or earned their freedom, forming large *palenque* settlements and smaller *rochelas.* While their claims to territory are more tenuous than those of the Wayúu, in recent years some communities have made progress in having their communities legally recognized under Colombia's multicultural constitution (Pérez & Residents of Tabaco, 2007; Banks 2023).

Despite lacking centralized political authority, the Wayúu were highly autonomous throughout the colonial and post-colonial periods, owing largely to their ability to control natural ports and contraband routes (Barrera Monroy, 2000). After Colombia's independence from the Spanish empire in 1819 and until the second half of the 20th century, the government made multiple attempts at expanding its political, religious, and military influence on La Guajira (Serje, 2005). Yet, these plans were sporadic and uneven. Contraband flows swelled considerably, which reinforced imaginaries of the peninsula as a site pervaded by illegality. This led to more aggressive, state-led efforts to impose on La Guajira licit "development" paths that were invariably centered on resource extraction (Orsini Aarón, 2007: 149).

The rise of coal

A key turning point was the opening of Cerrejón in 1982 – the largest open pit coal mine in Latin America. This form of neoliberal development sought to increase tax revenue, attract foreign capital, and extend state control over resources and populations (Puerta Silva & Carmona Castillo, 2020). In its early days Cerrejón (owned by the Colombian state and Exxon) embodied the promise of development (Orsini Aaron, 2007), but over the years the project displaced at least a dozen Wayúu and Afro-descendant communities and reduced the territory of dozens more. The open pits, 150 km rail line, and port encroach on community lands (see Figure 2).

[5] The Constitution of 1991 recognized a slate of Indigenous and Afro-descendant rights, including the legal recognition of Indigenous lands (*resguardos*) as collectively-owned spaces that cannot be privatized.

Cerrejón has also polluted La Guajira's scarce water sources with heavy metals, deforested the fragile dry tropical forest, and tainted the topsoil and air with coal particulate matter (Jakobsen, 2020, 2022; Ulloa, 2020). Coal mining also catalyzed the arrival of right-wing paramilitary groups, who have regularly threatened and attacked Wayúu and Afro-descendant environmental activists (Ramírez Boscán, 2007). Since the mine is currently owned by Glencore,[6] profits generate wealth for international investors in Europe while proving unable to revert – or alleviate – local forms of food insecurity, environmental degradation, and poverty (Chomsky & Striffler, 2014; Jaramillo & Carmona, 2022).[7] In light of this, there has been widespread local resistance to mining activities (Banks, 2017), especially around the recent P-500 and the Arroyo Bruno deviation projects, a set of plans to access coal deposits in a nearby riverbed.[8]

Figure 2: A group of families from the Afro-descendant community of Chancleta who were resettled by Cerrejón in 2013 returned to the original site of their community in 2016 in protest over their living conditions. The sign reads "For the incomplete promises tossed out into the forgotten." (Banks personal collection)

Despite its reliance on coal exports and the destructive effects of mining, Colombia has attained regional

[6] Glencore became the sole shareholder in 2022, after buying out BHP and Anglo American.

[7] Over 40% of the population in La Guajira live under conditions of extreme poverty (Ulloa, 2023: 13).

[8] The projects entailed deviating the natural flow of the Rancheria River in one of the driest regions of Colombia. The P-500 project would have allowed the company to double its production (from 32 MT in 2012 to 60MT) until the expiration of the concession in 2034, while the deviation would have expanded one of its operating pits. In 2017, the P-500 project was suspended by Colombia's Constitutional Court until future studies were completed (Jaramillo & Carmona, 2022: 14).

and global visibility for its commitment to climate actions, ratifying the United Nations Framework Convention on Climate Change (1994), the Kyoto Protocol (1997), and the Paris Agreement (2015) (Ulloa, 2023). The current leftwing administration of Gustavo Petro and Francia Marquez (2022-) has also pledged to impose a ban on fracking, expand renewable energy production, and combat deforestation (Guerra Curvelo & Schwartz, 2023). Nonetheless, the role of extractive companies in the national economy and climate actions remains unabated.

Indeed, until Cerrejón's proposed concession end date in 2035, the company plans to take advantage of the remaining deposits in La Guajira as the major coal buying nations have committed to phasing out coal in the coming decade as part of COP26 agreements (UNFCC, 2021). Furthermore, since all the coal from Cerrejón is exported to Asian, North American, and European markets,[9] company executives frame their operations as inconsequential to climate change *in* Colombia, because coal mining's contributions to global warming are minimal compared to those of coal combustion (even though the socioenvironmental cost of mining are felt locally).[10]

As part of its climate strategy, the Colombian government also started incentivizing energy companies – including Cerrejón – to invest in carbon offsets as way of cutting its greenhouse emission by 40% by 2030 (Gilbertson, 2021: 27). One preferred mechanism has been REDD+ (Reducing Emissions from Deforestation and Forest Degradation) projects that set aside biodiverse forest lands that companies claim to "protect" as compensation for their greenhouse emissions (Krause, 2020), though these schemes in practice allow them to avoid paying a carbon tax or forcing them to reduce their operations.[11] Much of this "protected land" is already managed by communities, so companies are paying to green their image rather than improve their practices. (Gilbertson, 2021). Carbon offsets have also enabled coal companies to position themselves as key partners in climate actions. Glencore is also committed to Net Zero by 2050 by reducing overall carbon emissions and investing in carbon offsets. To achieve this, Cerrejón has devoted ample resources to questionable reforestation and conservation programs in La Guajira, which it manages in-house.[12]

The alliance between Cerrejón and key state institutions has held up more consequential climate and "just" transition policies in Colombia (beyond carbon offsets). This resonates with the "extraction-conservation" nexus through which extractive companies embrace reforestation and conservation projects as a mechanism for greening themselves, a step that regularly creates new geographies of exclusion and biodiversity declines (Le Billon, 2021; Buller, 2022). Through aggressive lobbying and control of scientific data, these companies have also leveraged their institutional power to maintain the status quo on coal extraction (Strambo *et. al*., 2020). Cerrejón alone contributes 0.34 percent to Colombia's GDP and over forty-five percent to La Guajira's GDP, making it a powerful player in the domestic economy and in Colombian politics (Glencore, 2021), despite its deleterious role in current socio-environmental conflicts.

In short, far from remaining silent amid calls for climate action, Cerrejón has opted to frame coal itself as integral to the energy transition and its revenue as crucial for funding carbon offset projects that can mitigate global warming. Cerrejón has thus reimagined itself as a powerful conservation partner that will allegedly rehabilitate the dry tropical forest of La Guajira, preserve endangered species, and repair the socio-environmental harm generated by its operations. Hence, rather than antagonizing Colombia's transition plans, it has followed other coal companies in appropriating the language of transition (Curley, 2018).

The wind rush

[9] Colombia has several coal-fired power plants, and a few currently under construction, but the coal comes from other departments such as Cesar, Boyaca, and Northern Santander (EIA, 2019; Global Energy Monitor, 2019).

[10] Coal accounts for 40 % of global carbon dioxide emissions and is by far the largest contributor to climate change in the energy sector (Jakob *et al*., 2020, 704).

[11] In Colombia, there are about 25 REDD+ projects, yet only 10 have been validated by the Voluntary Carbon Standard Database (Krause, 2020). Critics have argued that REDD+ is a neoliberal mechanism that advances market-based solutions for tackling deforestation (Chomba *et. al.*, 2016) and whose impact on forests is still to be confirmed (Duchelle *et. al.* 2018).

[12] This reflects only a fraction of Cerrejón's corporate governance apparatus in La Guajira, including environmental management, development, and security (Puerta Silva & Carmona Castillo, 2020; Jakobsen, 2020, 2022).

Alongside carbon offsets, the Colombian state has vigorously promoted the construction of wind farms. Rather than being seen as a substitute for coal (thermoelectric plants generate only a fraction of the country's total electricity), wind energy is viewed as a force that will shield the grid from the impacts of climate change. Another if not more crucial aim is to increase foreign and domestic private investment (Ministerio de Minas y Energía, 2021).[13] Colombia's hydropower infrastructure – which supplies nearly 70 percent of the nation's electricity – has become increasingly vulnerable to severe droughts caused by El Niño and other climatological events (Unidad de Planeación Minero Energética, 2015). Yet, as droughts diminish the output of hydroelectric dams, they intensify the wind's force in La Guajira, turning the peninsula into a site for averting climate-related disruptions (Ruiz Murcia *et. al.*, 2017).

Currently, there are fifty-seven wind farms being designed by seventeen corporations, mostly based in Italy, Spain, Brazil, Germany, Canada, the U.S., and Colombia (Ulloa, 2023). Many of these investors are hydropower giants – Empresas Públicas de Medellín (EPM), Celsia, ISAGEN, and AES – who see La Guajira's wind as a profitable, risk-aversion strategy. Only one of the projects is designed as community-owned (though it is years behind schedule). The estimated US$6 billion investment will support the construction of 2,800 turbines on Wayúu land, generating close to 3,200 MW by 2031 (or nearly 20 percent of the national electricity demand) (González Posso & Barney, 2019; Ministerio de Minas y Energía, 2021). Green Horizons alone is developing six wind farms, comprising nearly 600 turbines, and valued at US$540 million. To connect the wind farms to the national grid, the government is planning to build three high-voltage lines (Línea Colectora 1, 2, and 3).

The wind energy rush was bolstered by Colombia's former conservative president, Iván Duque (2018-2022). His administration promoted a business-friendly regulatory framework to lure foreign capital, offering tax breaks and long-term electricity contracts (Ministerio de Minas y Energía, 2021). Though Petro (2022-) has reaffirmed a commitment to wind energy, his administration has been critical of Duque's corporate-driven model and has sought to advance a "just transition" that seeks to design energy policy in alliance with impacted communities and promote community-owned renewable energy projects (Guerra Curvelo & Schwartz, 2023). Petro's plan echoes Green New Deal initiatives that have emerged in the U.S. and Europe (Zografos & Robbins, 2020). Yet, the outcomes of this shift are still to be seen, especially as most wind farms remain privately owned.

While coal companies rely on conservation as their climate action, renewable energy firms tout wind as a steppingstone to a low-carbon future. On one level, they speak of wind as a "salvational object," whose high speeds and low turbulence year-round will shield Colombia from "environmentally precarious times" (Howe & Boyer, 2019: 1). On the other, they regard wind as an energy form that can seemingly circumvent the socio-environmental conflicts tied to coal mining. In public forums, company executives insist that their infrastructure will not pollute the air or nearby water sources, destroy Wayúu cemeteries, trigger forms of displacement, or violate Indigenous land rights. In other words, they contend that wind turbine towers will harness massive amounts of energy with minimal disruption to Indigenous social life. Such claims echo global trends where wind energy is presented as an untrammeled good, uniting the interests of local communities, states, and global corporations in the pursuit of climate stability (Howe, 2019).

Yet, as a capitalist frontier, the wind rush is equally defined by opacity and speculation, with little transparency regarding the scale, capital sources, and material implications of each project (Barney, 2021a). Thus, for many Wayúu residents, wind energy portends radical transformations to the landscape, including added noise and light pollution, disruptions to the mobility of people, birds, and goats, and damage to the dry tropical forest (Noriega, 2020; Rubiano, 2021). For others, it means a future of inadequate consultation practices (Barney, 2021b) or one where wind power does not translate into greater prosperity – as the legal percentage of energy sales that must be allocated to Indigenous communities is just one percent (Ministerio de Minas y Energía, 2021). Given these contradictions, wind farms have already ignited a resurgence of socioenvironmental conflicts (Guerra Curvelo & Schwartz, 2023).

Rendering wind power as a radical break from coal mining also obscures how both forms are connected through their infrastructure, materiality, and state support (i.e., what Dunlap [2021] calls "fossil fuel +"). Indeed,

[13] The rise of wind energy is not unique to Colombia; wind power will likely generate between one-quarter to one-third of all global energy by 2050 (Veers *et. al.*, 2019).

the only two wind farms in operation (Jepirachi and Guajira 1) rely on Cerrejón's high-voltage line, coal mining port, and private roads. But their entanglement is also palpable in the materiality of the wind turbines themselves, which depend on fossil fuels and other so-called transition minerals, including copper, iron ore, cobalt, and rare earth materials (Dunlap, 2021; Dunlap & Marin, 2022).

In short, ideas of conservation and post-extractive infrastructures are modeling corporate transition agendas in Colombia. Through their own environmental programming, communications strategies, and engagement with state institutions and local communities, these entities are shaping how decarbonization will effectively take place in a region with a violent history of extractivism. In the next two sections, we unpack how both industries situate their involvement in climate actions as a net good that benefits vulnerable communities, even while erasing the forced sacrifices they must make to accommodate these transition plans.

5. Coal mining in the transition: conservation and low carbon futures

Coal: a transition hydrocarbon

In Cerrejón's 2018 Sustainability Reports, company president Claudia Bejarano declared:

> At Cerrejón, we are aware that climate change is one of the most important challenges faced globally. Our commitment to the planet has led us to participate in a responsible transition in which we undertake measures to contribute to emissions reduction. Throughout this process, coal will continue to be a significant source of global energy over the upcoming decades. Therefore, as a country we should take advantage of this window of opportunity and work to ensure our mining activity continues to generate benefits for Colombia and La Guajira. (Cerrejón Corporation Ltd. 2019a, 1).

Her intervention underscores the preeminence of Cerrejón in La Guajira but also recasts the company as playing a *positive* role in ameliorating global warming and contributing to the country's energy transition.

Moreover, Bejarano's comments resonated with the climate policies of Cerrejón's shareholding company. At a global level, Glencore executives frequently use Cerrejón as an example of "responsible coal mining" by highlighting their environmental management and development programs, both of which, according to company claims, exceed Colombian standards. Hence, Glencore and Cerrejón's stance on climate action relies on a notion of mining innovation and technological fixes rather than a drop in the pace of extraction (Buller, 2022). This same logic plays out on the ground in the company's enclosure of conservation and reforestation sites that wrest control of territory and the future away from Indigenous, Afro-descendant, and peasant communities impacted by the mine's environmental violence. Such strategies obscure how carbon offsets dispossess rural communities' lands for conservation and reforestation programs, but also make the continued existence of the company seem inevitable even as the coal mine closes (Jaramillo & Carmona, 2022).

Conservation and reforestation

Cerrejón has invested about US$60 million in biodiversity through reforestation and conservation projects to compensate for the deforestation and pollution caused by mining and, ostensibly, reduce carbon emissions (Cerrejón Corporation Ltd., 2022a). One way in which the company demonstrates its credentials as an environmentally responsible mine is through daily group tours. The highly choreographed journeys are led by Cerrejón-employed guides who take tourists on company buses to visit several sites within Cerrejón's complex.[14] The first stop on the tour is a viewing platform on the precipice of the Patilla pit (named after the Patilla community, which was displaced to make room for the pit) that is about 500 meters deep, over three

[14] For another account of this tour see Jaramillo & Carmona (2022) who point out that these tours started in response to public criticism of the company's environmental practices.

kilometers wide, and almost seven kilometers in length (Figure 3).[15] After visiting this site, the guide brings guests to the land rehabilitation project where they explain how the environmental team carefully relocates fauna before mining begins and then reforests the area with native flora when mining ends. The rehabilitated forest is eerily flat with small trees, shrubs, and grasses. The company's website explains: "We have a land rehabilitation program with which we have transformed mining zones into plant cover areas with native species from the region, which equals 4,226 hectares. Additionally, we have contributed to the declaration of more than 60,000 hectares as biodiversity conservation" (Cerrejón Corporation Ltd., 2020). Together, the reforestation of former mine pits and the financing of conservation projects centered on dry tropical forests and coastal lands are meant to compensate for the 69,000 hectares that make up the Cerrejón concession.

Figure 3: The view of the Patilla pit from the platform above in 2018. (Banks personal collection)

When author Banks asked the Cerrejón tour guide what will happen to this land when the mine closes, the response was scripted: traditional agriculture and grazing in La Guajira are unsustainable, and the land cannot support it. Tour guides are thus well-versed in the company's communications strategy: they highlight Cerrejón's contributions to conservation while de-emphasizing the environmental harms of mining. When the mine closes in 2035, Cerrejón's tour workers[16] maintain, the company will turn the concession back over to the state, which will likely maintain the reforested areas as reserves. In other words, the land will *not* be returned to local communities displaced by mining operations.[17] Through the discourse of conservation and reforestation, Cerrejón not only frames its extensive control over land as beneficial to the environment, but also portrays Indigenous, Afro-descendant, and peasant communities as environmentally destructive. Such logic suggests that only through Corporate Social Responsibility programs or by partnering with the company's conservation efforts local actors can "learn" to protect the vulnerable dry tropical forest ecosystem.

For instance, Cerrejón funds community-run nurseries for native tree species as part of its CSR programming, which seeks to project an ethos of caring for the non-human world (Jaramillo & Carmona, 2022). The company recently won an environmental award for this program from the *El Espectador* newspaper. By touting its positive impacts, Cerrejón distracts from the violence done to communities that used dry tropical forests for hunting, foraging, and fishing long before the arrival of the company. The mine's enclosure of those lands has made these activities all but impossible. Cerrejón's commitment to conservation is thus part of the

[15] These figures come from notes taken during the tour and measurements using Google Earth Pro.

[16] We emphasize the type of worker because the members of Sintracarbon, largely made up of equipment operators, are a leftist, nationalist organization that works in solidarity with displaced communities and have stood against some of the most environmentally destructive expansion plans such as diverting the Bruno stream.

[17] A similar point is made by Jaramillo & Carmona (2022). And, as the authors aptly observe, Cerrejón fails to acknowledge that nearly 2,000 hectares will not be rehabilitated.

company's denial of its negative impacts and its wider strategy to make its energy transition agenda appear rational and urgent.

This same paternalistic understanding of conservation became salient during a company-hosted webinar entitled "Mining and the Environment."[18] The host from Cerrejón, Dr. Luis Madriñan, an ecologist who heads Cerrejón's Environmental Management team, opened with an encouraging note: "We are going to talk about a theme that is very relevant to all Colombians, which is mining and conservation. We can create ecological corridors[19] alongside corporate projects." The other four panelists were from Colombia's National Parks Department and three foundations: The Humboldt Institute, The Caribbean Environmental Management Foundation, and the Omacha Foundation. While these experts may seem neutral, Cerrejón finances millions of dollars for their conservation and research projects (a global trend also noted by Le Billon, 2021). Cerrejón seeks legitimacy for its environmental programming by working hand-in-hand with government institutions and environmental foundations that provide third-party technical expertise. This webinar took place amid ongoing struggles over the diversion of the Arroyo Bruno, a tributary steam, that led to multiple lawsuits against the company and continued accusations of environmental damage to both the water system and the dry tropical forest around it (Banks, 2017; Ulloa, 2020). While the panelists only mentioned the Arroyo Bruno in passing, all of them have been involved in generating positive public messaging that supports Cerrejón's claim that the diversion is environmentally sustainable. Moreover, this messaging creates an imagination of a post-carbon future created by the benevolence of coal companies. Cerrejón refashions itself as contributing to new infrastructures for the transition, another form of temporal enclosure that makes its operations seems inevitable while erasing local claims to these territories (Jaramillo & Carmona, 2022).

Julia Miranda, an environmental lawyer, who was previously the director of the Colombian Government's National Parks program from 2004-2020 (La Silla Vacía, 2021), was particularly enthusiastic about Cerrejón's positive contributions:

> I am convinced that activities like mining and petroleum production, infrastructure, and agriculture can all develop in a country that has a clear policy and identification for the sites that must be strictly conserved...because they are fundamental for confronting climate change. So today a productive activity like mining, if it's done well and responsibly using the best technical knowledge to mitigate impacts and to compensate these impacts… [can create...] an enormous opportunity to achieve conservation, care of natural resources, mitigation of impacts, and benefits to the local, regional, national, and global community. (Cerrejón Colombia, 2021)

Her comments resemble the burgeoning literature on conservation, which has criticized how these interventions are often designed without considering local actors (e.g., Chomba *et. Al.*, 2016; Le Billon, 2021). By downplaying the harms of mining, and the burning of coal globally, Cerrejón fashioned itself in the webinar as a key player in mitigating rather than perpetuating climate change, cementing its positive impacts on the transition agenda by creating post-carbon infrastructures.

Toward the end, the conversation turned toward the future of La Guajira after the planned mine closure in 2035. Madriñan mentioned that community members living in resettlements built by the company had recently asked Cerrejón employees whether families could return to their land after the concession expires, expressing their desire to hunt, fish, herd animals, and raise crops. Carlos Castaño Uribe, an anthropologist who has worked both for environmental foundations and the Colombian government, replied "I believe expanding the agricultural and fishing frontier of La Guajira is an error, I believe that will entail continuing to intervene and fragment this matrix which has been already altered by centuries of human activity….let's not forget that La Guajira is perhaps located in one of the most vulnerable parts of the country in terms of desertification."

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[18] The recording is available on YouTube (Cerrejón Colombia, 2021) https://www.youtube.com/watch?v=jaz3Q1pqPvo&t=1200s

[19] These are conservation areas distributed across mining zones where mine employees can preserve flora, fauna, and water resources (Cerrejón Corporation Ltd., 2019b).

Listening to his words, one could easily conclude that agriculture, not mining, has been the primary driver of desertification in La Guajira, a claim that echoes the tour guides' stance about land rehabilitation. While ranching goats and sheep and the cultivation of crops has an environmental impact, its scope is minimal compared to open-pit coal mining (Koluman & Darcan, 2018). Rather than supporting community land management, Cerrejón advances conservation initiatives since they are more compatible with the corporate capture of environmental management in La Guajira. Cerrejón has funded the protection of 60,000 hectares of land, including the Montes de Oca dry forest reserve in the central Guajira and the Bahia Portete National Park in the Northern Guajira (Cerrejón 2023).[20] The company has supported these projects alongside CorpoGuajira, the state-level environmental agency as part of carbon offsets, paying to protect forests and coastlines in exchange for the 69,000 hectares under concession for the operations, rail line, and port.

Cerrejón's dominant place in climate action in La Guajira broadens its power for delineating the transition agenda (one where broader concerns about socioenvironmental justice are disavowed). Far from denying global warming or rejecting the critiques against extractivism, Cerrejón appropriates climate consciousness and post-extractive popular demands to preserve a future for coal mining. This is not, however, the only mode in which companies co-opt the transition agenda. As we discuss next, the developers of future wind farms position themselves as partners in climate actions in starkly different terms: by distancing themselves from coal mining and signaling that their low-carbon infrastructures are spatially and socially benign.

6. Transition as infrastructural proximity: spatial politics of wind power

Wind energy developers are aware that, for many residents of La Guajira, low-carbon projects are simply another itineration of coal mining. The tendency to conflate wind and coal remains a source of corporate unease partly because the viability of future projects depends on lengthy consultations that are necessary for obtaining an environmental license (Schwartz 2021). Since the Wayúu have territorial rights over the windiest areas of the peninsula, the only way this green energy future can be materialized is through 25-year agreements with communities for "hosting" the turbine towers, substations, and high-power lines. Convincing these actors that wind energy is *not* like coal mining is thus essential for opening this new atmospheric frontier of accumulation, and advancing the corporate transition agenda.

Visualizing proximity

One strategy used by Green Horizons to achieve this goal is to visualize their own infrastructures as radically distinct from Cerrejón's mining sites, particularly Puerto Bolívar (an enclosed and highly securitized port) and the 150 km railroad connecting the port to the mine.[21] Instead of being surrounded by fences, surveilled by cameras and armed guards, and spatially secluded from Wayúu social life, wind farms are regularly represented as unenclosed. According to Green Horizon's engineers, turbine towers will occupy Wayúu land in a scattered way, allowing the free flow of residents, goats (an important economic asset and cultural good), and vehicles. Since the towers will be over 200 meters tall, the expectation is to harness the wind above Wayúu communities while allowing them to carry on with their social lives undisturbed.

Green Horizon's public relations employees frequently explained to communities that their infrastructure will be placed in carefully selected spots, coalescing with cemeteries, subterranean water wells, agricultural and goat-farming areas, and people's homes (Schwartz 2021). Although such infrastructural design is partly determined by Colombian environmental regulations, and the techno-material needs of wind turbines to operate efficiently, they also reflect Green Horizon's own peculiar vision of energy transitions. Far from displacing coal mining, democratizing access to electricity, or devising communal ownership schemes that can animate

[20] Bahía Portete was the site of a massacre in 2004 in which paramilitaries displaced a Wayúu community and assassinated a dozen people.

[21] Founded in 2010 by a group of German and Colombian engineers, this small startup attracted enough investors to design and license six wind farms. In 2019, Green Horizons was bought by a U.S. Fortune 500 energy conglomerate. When completed, the company will operate a total of 498 turbines with a capacity of 723 MW (enough energy for 120,000 U.S. homes).

Indigenous futures, the company views the transition as being largely about a reordering of infrastructure and space.

This vision was on full display in a February 2019 meeting at Green Horizon's "Office for the Empowerment of Wayúu Communities" in La Guajira. Gathered in a small room, the staff of six Wayúu workers and three non-Indigenous managers who flew in from Bogotá met for over 10 hours, going over the details of the licensing bids for the next four years. The meeting was led by Camilo, a young engineer from Bogotá who co-founded and led the company. Before wrapping up for the night, he grabbed his laptop and shared a visual project that a few young engineers had been working on for months. Based on dozens of community maps, photographs, and satellite images, they had designed a set of high-resolution images showing what the Wayúu communities would look like once the turbines were up and running. The detailed images allowed viewers to see residents' houses, goat pens, schools, soccer fields, water reservoirs, and families (Figure 4).

Figure 4: An image showing one of Green Horizon's wind farms. (Schwartz personal collection)

As Camilo scrolled through the images, he said: "Here we have a visualization that shows what it will look like. Over there [he pointed at the monitor], you can see the cemeteries of the Wayúu *cohabitating* with the turbines. You can see the water reservoirs. And you see here a person next to the turbine. The cars and the goats are passing each other on the road…" "And it's not fenced, which [addresses] a main concern for the Wayúu," Rafael added – the company lawyer. The images seemed to portray a territorial configuration that went beyond the spatialization of enclaves, frequently marked by forms of inequality, marginalization, and militarization (Jaramillo & Carmona 2022). Indeed, unlike Cerrejón's coal mining port, which strives to be

entirely disconnected from contingencies on the ground (achieving what Appel [2012] calls "modularity"), the architectural and aesthetic layout of wind farms sought the opposite: a seamless articulation of atmospheric resources, energy infrastructure, and Indigenous lifeways (Figure 5). Such images vividly captured the notion of infrastructural proximity, collapsing techno-futuristic blades and power lines alongside Indigenous bodies, landscapes, and social life. And as with other social mapping techniques, these visual forms not just described but also prescribed what the future in Wayúu land would look like (Jaramillo & Carmona, 2022).

The visual amalgamation of wind turbines and Indigenous lifeworlds is not unique to Green Horizons but is rather emblematic of the renewable energy industry in La Guajira (Jaramillo, 2012; Schwartz 2021). Jepirachi, a small, experimental wind farm built in the mid-2000s by Empresas Públicas de Medellín, was represented in CSR videos and annual reports in analogous terms. A promotional booklet of EPM underscored how "the construction and development of the project did not displace the population… [and that] EPM sought not to interfere in the everyday activities of the Indigenous communities…" Besides minimal noise and bird route disruptions, EPM claimed that Jepirachi had a caring presence in the landscape. "The wind turbines [of Jepirachi] are not enclosed, thereby the traditional land use (goat grazing and traditional agriculture) was not affected" (EPM, 2010).

Figure 5: An image showing a close-up view of a wind farm project. (Schwartz personal collection)

A few months after this meeting, Camilo began displaying the images at official consultation events with Wayúu communities. One afternoon, after hours of technical conversations about construction timelines, he displayed the images during a lunch break and told a potential host community: "This is a project that you can live with (*convivir*) for as long as you decide to do so." While some attendees reacted with a mix of apathy and humor, others used this occasion to voice their own views about the desired spatial configuration of wind power. Angelina – a Wayúu resident – grabbed the mic and said to Camilo: "We want to move around in our territory without anyone blocking us. I want my children, grandchildren, and animals to move without trouble. I don't want the *alijuna* [non-Wayúu] to impose limits or borders within our territory." Mariana, another resident of the perimeter, echoed this same stance: "We don't want anyone to take away that freedom. We want our animals to keep moving and grazing freely." Such voices signal why Green Horizon was strategic enough to visualize its infrastructural configuration as mirroring those local aspirations.

After this brief exchange, Camilo turned off the monitor and the consultation meeting veered again into highly technical topics. But as he explained later that day, he thought the images helped quell anxieties about

potential forms of displacement and enclosure. In other words, they contributed –however minimally– to decoupling wind energy infrastructures from the communities' experience of coal, a step that was seen as vital for wind power to thrive.

Transition as infrastructural change

Nearly all Wayúu workers of Green Horizons had a strong anti-coal mining stance, which facilitated the task of severing wind power from the coal mining past. Carolina, a Wayúu social worker who oversaw Green Horizon's corporate relations on Indigenous land, always referred to communities living close to the railroad as "victims of the company [Cerrejón]." During community events, she was always vocal in criticizing Cerrejón's ongoing violation of the Wayúu's territorial autonomy and derided that the mine never conducted any kind of consultation. In addition to the coal particulates that polluted the air, water reservoirs, and people's homes, Carolina spoke of the coal mining port and the train as infrastructurally violent. "The train," she explained once, "has caused many accidents, deaths, and divisions among families since the railroad itself broke the territory in half." Before being recruited by Green Horizons, she even co-authored an internal report commissioned by Cerrejón on Wayúu perceptions of the railroad, which is responsible for numerous pedestrian and animal fatalities every year (Jakobsen, 2020). Her report emphasized how communities still resented the destruction and relocation of cemeteries caused by the railroad's construction. She also found that many residents saw the train's aesthetics (especially its black color) as a *yoluja*, a nefarious spirit of the dead that has unrestrained lethal power (Cerrejón Foundation, 2008; Jakobsen, 2020).

Although wind energy workers claim that this notion of infrastructural proximity is novel, to some extent, it is not very far from the way Cerrejón initially talked about its own spatiality. In the 1980s, for example, Cerrejón hoped that the railway would become a quotidian part of the landscape (Jakobsen, 2020). Subsequently, it launched public relations campaigns inspired by ideas of coexistence and mutual collaboration (Ibid). Nonetheless, as wind energy workers constantly remind community members, the railway kills about one goat per day and one or two individuals per year, while continuing to pollute adjacent water sources (Jakobsen, 2020; Gilbert *et. al.,* 2021). The train exerts a level of socio-environmental violence that low-carbon infrastructure, they argue, could never enact. This does not mean that turbines are portrayed as entirely harmless, given their obvious impact on vegetation, waterways, birds, bats, and the soil (Dunlap, 2017). But rather than the divide-and-conquer techniques that are persistent across mining and oil extraction sites (Kirsch, 2014), the corporate move here is to foreground wind energy technologies as a non-threatening, non-killable apparatus.

This idea of infrastructural proximity – depicted in images that emphasize turbines' harmfulness and unenclosed quality – resembles to some extent Dunlap's (2021) notion of infrastructural colonization and Ulloa's (2023) theorization of the aesthetics of green dispossession. Yet, what is salient about the narratives and visualizations of Green Horizons is that their aim is less to represent La Guajira as *terra nullius* devoid of human and non-human life (see Dunlap, 2021: 213; Franquesa 2022) and more about advancing the fantasy of harnessing large-scale quantities of kinetic energy *without* disrupting social life and Wayúu territoriality. To be sure, this does not mean that this model is less violent than coal, or that it easily overcomes the forms of territorial fragmentation tied to supporting infrastructure such as roads, sub-stations, power lines, or workers' camps (Ulloa, 2023: 3). But the narratives and representations of Green Horizons are ideologically potent, not just because they promise a non-invasive energy system that appears to transcend on some levels the coal mining past, but also because it refashions the company as helping propel the region into a post-fossil-fuel future. It is against this negative backdrop surrounding Cerrejón's infrastructure that Green Horizons fashioned itself as contributing to Colombia's energy transition.

Nonetheless, by focusing solely on infrastructure and space, this approach leaves untouched other forms of energy injustice associated with privatized wind farms. It fails to amend the negligible rates of access to electricity (available to only fifteen percent of Wayúu homes, Schwartz 2021), the narrow size of community development funds, the internal conflicts among extended families over anticipated benefits, the unequal distribution of energy sales revenue (ranging from two to seven percent) or the absence of community-owned ventures (Guerra Curvelo, 2022; Noriega, 2020; Rubiano, 2021). Furthermore, infrastructural proximity serves other corporate goals rather than advancing Indigenous futures. On one level, it helps to counter accusations of

privatizing Indigenous land (see also Dunlap 2019; Verweijen & Dunlap 2021). On another level, it simultaneously allows Green Horizons to scale down the material benefits delivered to Wayúu hosts. Since these payments are made as "compensation" for environmental damages, the fact that wind turbines are visualized as less environmentally destructive means that their potential to bring about sizeable monetary payments for materially precarious Wayúu communities is inferior compared to fossil fuels. Hence, infrastructural proximity fails to meaningfully alter the circumstances of poverty, environmental injustice, and lived insecurities of potential host communities.

Despite the carefully curated images, the haunting of coal can never entirely go away. In fact, during the same meeting where Camilo shared the images, attendees later expressed their concern that his company could suddenly, and all too easily, morph into another Cerrejón. Miguel, one community member, told the audience:

> Are they [Green Horizon] trying to enclose our territory? What will happen to our animals?... What I really want is for them to tell us the exact portion of land that they're going to use, to avoid having problems in the future… And I say this based on my experience because that's what happened with this other company [Cerrejón]. It is forbidden to move around that area (pointing at the port) and that's part of our territory. And Cerrejón told us the same thing that this company is telling us today...

Miguel's account captures the slippage between wind and coal that still haunts Colombia's renewable energy rush, one that infrastructural proximity is meant to dissipate. For wind energy companies in Colombia, the transition is thus about rearranging infrastructure and space in ways that can sustain the large-scale harnessing of wind without explicitly enclosing land or disrupting the flow of Wayúu social life (a claim that some communities find compelling). Through the narratives and visualizations of proximity, companies like Green Horizons can affirm that a transition *is* taking place (at least at the level of space and infrastructure), even if so many other dimensions of the wind energy rush continue to mimic the extractive status quo.

7. Conclusion: the corporate politics of energy transitions

Wind energy and coal mining companies are both actively engaged in shaping the region's transition agenda. Through a multi-sited ethnographic analysis of energy corporations in La Guajira, we have highlighted how these industries narrate, visualize, and enact transition discourses and practices that allegedly pursue a common low-carbon future. By embracing notions of environmental care, post-extractive spatiality, and climate consciousness, these actors not only shape corporate-community relations on the ground, but they also sustain their own forms of accumulation. Therefore, energy transitions and low-carbon infrastructures must be understood not just as highly-localized and historically-specific phenomena (Sovacool, 2021), but also as intimately tied to a range of corporate practices of greenwashing and environmental management. Building on the political ecology of energy transitions and low-carbon infrastructures, we argue that corporate transition agendas in La Guajira are not just smoke and mirrors but tangible undertakings that carve out a future for extractive and renewable energy companies and minimize alternative transition agendas grounded in environmental justice and Indigenous autonomy. As such, they end up demarcating the kinds of environmental, economic, and political futures that will play out (including the role of fossil fuel and green energy capital in achieving Colombia's climate targets).

This article also sheds critical attention on how mining and renewable energy corporations are co-opting in different terms the terrain of transition. While we are keenly aware of the grassroots critiques and movements in favor of just energy developments (Banks 2017; Schwartz 2021), we focus here on the practices of Cerrejón and Green Horizons insofar as they illuminate how companies frame their participation in global warming reduction as a net good that benefits vulnerable people, all the while obscuring how their own market-led transition agendas force those same communities to sacrifice their territory to accommodate their plans. Their strategies signal that "greenwashing" is more than discourse, but also a set of material, infrastructural, and environmental actions. All these actions distract from La Guajira's harsh reality: environmental devastation

from coal mining in the south and extreme poverty and humanitarian crises in the north. This illuminates the broader frictions between the climate crisis and the future of (post-) extractive capitalism in Latin America.

Yet, the people impacted by these operations are not silent. While this article attends to corporate perspectives, communities in La Guajira have partnered with universities and NGOs to produce their own visions for a "just transition" (Newell & Mulvaney, 2013: 133) which runs counter to corporate and state desires (Guerra Curvelo & Schwartz, 2023). For example, Sintracarbon, the union that represents Cerrejón operators and technical workers (not management or administration) has put forth a vision for a just transition based on retraining coal workers and turning over used lands back to local communities. Another example is the NGO CENSAT, which has conducted workshops with communities in La Guajira to create grassroots designs of just energy transitions, which would entail territorial reconstruction, community participation, and reparations for impacted communities (CENSAT Agua Viva, 2018). A third example is the Energy Transition Research Incubator led by Dr. Andrea Cardoso at the University of Magdalena. The center brings together researchers, students, communities, activists, and NGOs to catalyze local ideas for a just transition. Some of their core ideas include regional autonomy, sustainable investment in local economies, reparations for impacted communities, community health plans, and a mine closing plan that is participatory (Santamaría Guerrero *et. al.*, 2020).

These are only three of the many interventions that our Colombian colleagues are developing to envision alternative energy futures. Some of these efforts align with initiatives elsewhere that seek to decolonize the energy transition (Siamanta, 2021; Tornel, 2023), foreground Indigenous relational ethics across energy infrastructures (LaDuke & Cowen, 2020; Ulloa, 2023), create supply-chain solidarities (Lennon 2021; Sovacool *et al*., 2020: 17), expand community-owned projects grounded in social and ecological sustainability (Siamanta, 2021), and push for post-development frameworks (Dunlap & Riquito, 2023). All of them invariably link low-carbon energy with land-based sovereignty, the inclusion of human and non-human kin, and a radical change to the conditions of material precariousness and humanitarian emergency that have ravaged La Guajira. They strive for a closer engagement with "marginalized knowledges" (Siamanta, 2017: 270) and they hold on to the possibility that low-carbon infrastructures can serve the aims of "justice, decolonization, and planetary survival" (LaDuke & Cowen, 2020: 244-245). As such, they attempt to activate truly post-extractive imaginaries by nurturing different modes of relationality with coal and wind beyond market-driven conservation and the spatial politics of infrastructural proximity.

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