When 'green' becomes 'saffron': Wind extraction, border surveillance, and citizenship regime at the edge of the Indian state

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Abstract

Low-carbon mega-infrastructures constitute one of the main institutional responses to climate change in India's agrarian settings, as they are imagined around features of 'greenness' and 'cleanness.' But this story entails a problematic construction of land, the reconfiguration of space for extractive development, and a complete disruption of agrarian social structures around features of exclusion and dispossession. This research adopts perspectives from political ecology to understand the persistence of class-caste relations, the legacy of coloniality, and the new citizenship regime underlying 'green' extractivism in India's low-carbon infrastructures. Wind turbines align with broad ethno-religious conceptions of Indian citizenship and space as Hindu, and their expansion over new border areas serves nationalist projects of territorial reconfiguration, cultural identity revivalism, border-making, and Muslim populations' surveillance.

Keywords: 'green' extractivism; border-making; state-making; citizenship regime; Hindu nationalism

Résumé

Les méga-infrastructures à bas carbone constituent l'une des réponses institutionnelles principales au changement climatique dans un contexte agraire indien, ces infrastructures étant imaginées comme 'vertes' et 'propres.' Mais cette narration induit une construction problématique de la terre, la reconfiguration de l'espace par le développement extractif et une disruption complète des structures sociales agraires autour de dynamiques d'exclusion et de dépossession. Cette recherche adopte une perspective d'écologie politique pour comprendre la persistance de relations de caste et de classe, l'héritage de pratiques coloniales et le nouveau régime de citoyenneté qui sous-tend l'extractivisme 'vert' dans les infrastructures à bas carbone de l'Inde. Les infrastructures éoliennes alignent leur mode de développement avec des conceptions ethno-nationalistes de l'espace et de la citoyenneté indienne comme Hindou, et leur expansion vers de nouvelles zones frontalières sert un projet nationaliste de reconfiguration territoriale, de renouveau identitaire, de construction de la frontière et de surveillance des populations musulmanes locales.

Mots-clés: extractivisme 'vert'; frontière; formation de l'état; régime de citoyenneté; nationalisme Hindou

Resumen

Las mega infraestructuras con bajas emisiones de carbono constituyen una de las principales respuestas institucionales al cambio climático en los entornos agrarios de la India, ya que se imaginan en torno a características de "verdor" y "limpieza." Pero esta historia conlleva una construcción problemática de la tierra,

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la consiguiente destrucción del espacio para el desarrollo extractivo y una completa alteración de las estructuras sociales agrarias en torno a rasgos de exclusión y desposesión. Esta investigación adopta perspectivas de la ecología política para comprender la persistencia de las relaciones de clase y casta, el legado de la colonialidad y el nuevo régimen de ciudadanía que subyace al extractivismo "verde" en las infraestructuras de bajas emisiones de carbono de la India: los aerogeneradores se alinean con amplias concepciones etnorreligiosas de la ciudadanía y el espacio hindúes en la India, y su expansión por nuevas zonas fronterizas sirve a proyectos nacionalistas de reconfiguración territorial, resurgimiento de la identidad cultural, creación de fronteras y vigilancia de las poblaciones musulmanas.

Palabras claves: extractivismo "verde"; creación de fronteras; creación de Estado; régimen de ciudadanía; nacionalismo hindú

1. Introduction

Since Narendra Modi became India's Prime Minister in 2014, and with his re-election in 2019, he championed both the 'green' and the 'saffron.' Saffron² is the color *par excellence* of Hinduism, but it also refers to a political movement aimed at transforming India's democracy and state into an openly racializing and segregating apparatus, namely Hindutva or Hindu nationalism (Jaffrelot, 2021). In line with this political project and a populist heritage, Modi wants to position the country as a modern world power and return to a past 'golden age' where the Indian – understood as Hindu civilization – was enlightening the rest of humanity (Chatterji *et al.*, 2019). India's G20 presidency in September 2023, or more recently, the invitation by President Macron to the French Bastille Day military parade in July 2023 as a guest of honor, offers tangible evidence of these ambitions to position India as a world power. Modi has already won the title of 'saffron' champion or *Hindu Hriday Samrat* (King of Hindus' Hearts), with his infamous active participation in the 2002 anti-Muslim state-sponsored *pogrom* (Ghassem-Fachandi, 2012; Jaffrelot, 2016). Since then, his government and party, the Bhartiya Janata Party (BJP), have been meticulously applying an ethno-nationalist political project that dates back to the European fascism of the 1920s (Casolari, 2020): the establishment of a Hindu state or Hindu *rashtra* that segregates its citizens based on religious, caste, class, and gender identities (Hansen & Roy, 2022; Jaffrelot, 2021).

At the same time, Narendra Modi was also claiming to become an architect of global climate diplomacy. By signing the Paris Climate Agreement in 2015 and setting very ambitious targets for carbon emission reductions (reducing emissions per unit of GDP by 45 percent by 2030, against 2005 levels) (United Nations, 2015), India's Prime Minister envisioned championing the 'green', or the development of a new economy grounded in low-carbon technologies, energy transition, and unlimited growth. Large-scale industrial and mega-low-carbon energy infrastructures such as wind farms on the nation's borders have been the preferred technological solutions to reach these targets. As many scholars argue, these technological solutions are highly extractive in nature, reproducing the dispossessive, destructive, and colonial dimensions of traditional fossil fuel energy (Dunlap 2018b; Singh 2022; Stock & Birkenholtz 2019). This industrial 'green' energy turn is therefore not a radical transformation or revolution. Rather, it operates as a global-scale, albeit temporary, 'socioecological fix' to interlocking crises of capitalist accumulation and climate emergency (Harris, 2010; McCarthy, 2015; Newell, 2018). I plan to explore in this article the political opportunities and possibilities offered by the transition to low-carbon infrastructures, both in terms of extractive developments and the citizenship regime operating at the edges of the Indian state.

Energy infrastructures are often described as neutral technologies. The rendering of energy and climate issues as technical has led to their depoliticization through routine 'anti-politics' (Ferguson, 1994), expert discourses, and knowledge production (Li, 2007). Electrification or electricity projects have historically relied

² I use this term in quotation marks in the rest of the article to refer to the Hindu nationalist political movement and without quotation marks to refer specifically to the saffron color (for example, saffron flags).

³ I use the term 'green' in quotation marks in the rest of the article to acknowledge that the so-called greenness of new sources of energy like wind and solar is highly questioned and contested, particularly considering their supply chain costs and socioecological impacts (Dunlap, 2021a).

on a profound civilizing narrative and the dissemination of modernist ideologies that promise to bring progress and development through science and technology, with the powerful image of 'enlightening' the 'darkness' and the 'backwardness' of rural areas (Kale, 2014). But wind electricity infrastructures are not just about producing so-called 'green' and clean electricity. They go far beyond the turbine and its sets of wires, cables, and locations. Energy infrastructures are spaces of struggle, tensions, and frictions. They are "sites of expression for dominant ideologies, collective subjectivities and socioenvironmental contestations" (Loloum, Abram, & Ortar 2021, 4). They are profoundly political; they participate in the consolidation of the state's authority and the expansion of capitalist accumulation over new territories, spaces, and populations that partially escape them. This article precisely invites us to bring political ecology in, to understand wind power as "a much broader set of interrelated political, ecological, and social impacts" (Willow & Wylie, 2014, p. 230). This, in turn, helps us to both repoliticize energy and electricity issues and also to energize and electrify politics.

This research is foregrounded by insights from political ecology, particularly the relations between extractivism, ethno-nationalism, and the infrastructural and material dimensions of energy. I am heavily indebted to the growing literature examining solar energy mega-projects in India and their intersection with structures of caste, class, race, and gender. As these projects enclose massive amounts of land and foster strategies of capital accumulation for some, they entrench colonial, gender, and caste-based inequalities and labor oppressions for rothers, particularly for landless agricultural laborers (Dalits) who lose access to sources of livelihoods and are trapped in partial proletarianization (Ghosh *et al.*, 2022; Stock & Birkenholtz, 2019). Sareen and Shokrgozar have also examined how renewed extraction in India's solar energy governance fosters profound socio-material, institutional, and relational changes (2022). Following the work of Stock and others who studied the emergence of racialized property regimes and subaltern possessory claims for Dalits in solar enclosures (Jonnalagadda *et al.*, 2021, 2022), I want to question the emergence of racialized citizenship and security regimes in the case of wind energy infrastructure situated in borderland India. Studies have reaffirmed the crucial need for empirical and critical analysis of local wind turbines in the specific context of India's borderlands, and how these extractive developments might merge with broader issues of citizenship, security, and the nation's boundaries.

I look at the deployment of wind energy infrastructure among borderland populations in Western India, showing what the 'green' extractive development of an ethno-nationalist and 'saffron' government looks like. Wind power infrastructures are key sites for the expansion of extractive developments and the performance of state sovereignty and authority over marginal and peripheral subjects. They are powerful platforms for reproducing border spaces, national boundaries, and territories and shaping racialized citizenship and exclusionary forms of national 'belonging' on India's borderlands, aligning with the ethno-nationalist long-term political project of unmaking and remaking land and space along religious and caste lines. I first outline the theoretical framework guiding this investigation, then I describe the specific historical and political context of my case study and its methodology. I engage with wind turbines as border infrastructure and technologies enforcing new citizenship and security regimes. Deployed in the context of existing nationalist tensions and anxieties, the arrival of wind turbines unleashes strong caste and religious conflicts over available resources and space.

2. Theoretical framework: Extractivism, ethno-nationalism, and the infrastructure

Political ecologists have questioned these dimensions of contemporary extractivism in relation to ethnicity and belonging. 'Green' energy is not a substitution or disruption to traditional 'black' (coal) or 'brown' (oil) resources. It operates along the same continuum of extractivism, or within the same "extractive regime" (Adhikari & Chhotray, 2020). This regime, many scholars argue, is about "rationalizing socio-ecologically destructive modes of organizing life through subjugation, violence, depletion, and non-reciprocity" (Chagnon *et al.*, 2022, p. 760). Defined as the activity of extracting materials from territories or the earth and converting them into value (Bridge, 2010, 2011), extractivism dictates a certain way of acting in the world through processes of conquest and exploitation, erasure, and *terra nullius* (Dunlap & Jakobsen, 2020). It organizes, orders, divides, and separates while "seeing like a State" (Scott 1999), or in the Foucauldian sense, rendering

populations and resources governable (Verweijen & Dunlap, 2021). Indeed, by imagining land as 'empty' or as 'waste', extractive developments roll out processes of frontier-making, usually associated with capitalist accumulation: the frontier refers to this historical and cyclical process of "framing marginal spaces – borders, borderlands, upland areas, remote forest zones, deserts, steppes, coastal hinterlands, 'waste' or 'idle' zones – as resource frontiers" (Cons & Eilenberg, 2019, pp. 8-9). It is usually "when a new resource is identified, defined, and becomes subject to extraction and commodification" that the frontier emerges, according to Rasmussen and Lund (2018, p. 391).

The availability of new abundant resources like wind and sunlight, alongside cheap land and labor, is therefore crucial in sustaining the expansion of a new frontier dynamic (Moore, 2015), one that exploits and extracts so-called 'green' resource materials. The 'green' extractive frontier provides capitalism with renewed avenues for accumulation on a more socially and environmentally sound basis and ensuring its survival by producing counter-insurgency mechanisms and tools for control and subjugation (Dunlap, 2018a, 2020): indeed, "extractivism is ontological; it universalizes and normalizes multiple types of violence" (Tornel, 2023, p. 5). It includes everyday forms of institutional violence, in order to render extraction socially and politically feasible. This form of 'sustainable violence' consists in winning the 'hearts' and 'minds' of populations through 'hard' and 'soft' techniques of population control (Dunlap & Riquito, 2023; Verweijen & Dunlap, 2021) and refers to "low-intensity, asymmetrical combat, a style of warfare that emphasizes [...] security provision and social development to maintain governmental legitimacy" (Dunlap, 2017, p. 484).

Extractivism is also, in most cases, associated with specific "regimes of dispossession", defined by Levien as "the constellation of state roles, economic logics tied to particular class interests, and ideological justifications underpinning a pattern of dispossession in any given time and place" (2013, p. 361). Extractivism enforces struggles for land, property, and authority through changes in property regimes and in legislation. The legitimation of new land rights usually works in tandem with the use of illegal, illegitimate, and violent means, and the strengthening of authority for the institution granting these new rights (Peluso & Lund, 2011; Sikor & Lund, 2009). Racialization occurs through changing property relations and extraction, as certain populations are deemed more 'productive' and 'loyal' while others are deemed 'disposable' and 'waste' (Baka 2013; Singh 2022; Stock 2022), ultimately defining whose life is judged valuable and worth living for and whose life is of "utter indifference to global circuits of capital" (Gidwani & Reddy 2011, 1652). Extractivism, in this sense, differentiates, constantly values and devalues human conduct, includes and excludes populations, and for this reason, it interacts with regimes of governing and regimes of citizenship.

Reconfigurations of land, property relations, and authority are also infused with nationalist imaginations, and nativist and revivalist nostalgic conceptions of space and identity. Territory, land, and nature are increasingly assigned natural characteristics that are attached to a set of national symbols and pride, the "natural contours of the nation" or ethno-religious moral values (Cederlöf & Sivaramakrishnan 2012; Chhotray 2016; Sharma 2012). Ethno-nationalism is a powerful force of frontier-making as it reconfigures the political relations between nature, people, and space along a monolithic cultural identity that is shaped by a majoritarian and socalled 'native' group, mostly articulated around ethnicity (race, caste and religion) (Chatterji et al., 2019; Jaffrelot, 2021). This form of identity and belonging to the nation is associated with traditional forms of domination, muscular power, and violence in agrarian contexts (Lerche & Shah, 2018). Ethno-nationalisms are political movements aimed at restoring a socially conservative status quo upon society (Smith, 1986), but they also extend to a certain form of organizing nature and its resources where every species, plant, and by extension, humans, including various ethnic or religious groups, all belong to a certain order and a certain place (Sharma, 2012). These understandings help naturalize social hierarchies of power (Crowley, 2022) and normalize extractive imperatives as part of a 'natural' order. Ethno-nationalist political movements therefore materialize in struggles over resources, space, and land, and in the case of this study, they materialize in socio-spatial reconfigurations through 'green' extractive operations.

Extractive and ethno-nationalist frontiers meet even more tellingly in the space of infrastructure. I engage here with the material, infrastructural, and power dimensions of energy, or in other words, its 'energopolitics'

(Boyer, 2015, 2019). The deployment of energy infrastructures often generates new political imaginaries of nationhood, enabling or disabling certain configurations of political power (Daggett, 2019; Mitchell, 2009). It shapes life and death, produces difference, and manages identities and bodies in ways that align with broader projects of surveillance, control, and security in sensitive and recalcitrant border landscapes (Cons, 2016; Thomas, 2021). In that sense, infrastructures reveal an important form of biopower, i.e., the power to "make live or let die" or the power to organize life, reproduction, and vitality (Li, 2010).

For these reasons, the biopolitics of energy infrastructure enforces racialized differentiation of populations and exclusive citizenship regimes (Larkin, 2013; Lesutis, 2021). This aligns with the colonial and violent nature of energy infrastructures (Batel, 2021; Batel & Devine-Wright, 2017): they operate as "territorial weapons that [...] 'roll out' an apparatus of spatial, economic and psychosocial management" (Dunlap & Arce, 2021, p. 7) and sustain a "modality of conquest", or "infrastructural colonization", that "normalizes socioecological plunder" (Dunlap, 2021b, p. 6). As I shall demonstrate through the rest of this article, the biopolitics of energy infrastructure extends to, and brings together, extractive and ethno-nationalist frontiers.

3. Gujarat and borderland Kutch: At the center of Hindu nationalism and the arrival of wind turbines

The Indian state of Gujarat has often been presented at an exemplar of economic liberalization and business-friendly policies (Sud 2012, 2014; Jaffrelot 2018, 2019) and since the early 2000s it has been a state-wide laboratory for experimentation with Hindu nationalist and Hindu-Gujarati ideologies (Sud, 2020). The state has a long tradition of 'exemptions', dating back to Indian Independence in 1947, when the Gujarati business community obtained concessions from the Nehruvian *dirigiste* state (Sinha 2005). Since 1987 it has been one of the first and most proactive states in liberalizing land policies for private investments and a front runner in renewable energy development (Phillips, Newell & Purohit 2011). At the same time, Gujarat saw one of the worst state-sponsored genocides and massacres of its minority Muslim populations, in 2002 (Ghassem-Fachandi, 2012). It has witnessed the rise to complete hegemony of a right-wing Hindu nationalist movement, and particularly its political wing, the BJP. It has regularly mobilized around the rejuvenation of a pseudo-Hindu glorious and mythical past and a space with Muslims constituted as both alien and 'external' (Corbridge, 1999; Hansen, 1999; Jaffrelot, 2016).

Nationally, since the BJP rose to power in 2014, the Indian state has taken an even more fascist, authoritarian, neoliberal, and surprisingly 'green' turn (Sinha 2021). Modi's regime is widely characterized by securitized and extractive forms of environmental and resource governance that can be deadly in the extreme, entering an altogether new phase of "autocratic environmental governance" (Dutta & Nielsen, 2021) that materializes in an aggressively centralizing agenda. This agenda has expanded extractive operations in ecologically precarious spaces, diluted all key environmental laws, and privileged the interests of designated businesses in a new form of 'crony capitalism' (Jaffrelot, 2018).

Hindutva, or 'Hindu-ness', 4 is a project that dates back to the 1920s and finds its core inspiration in Italian fascist ideology (Casolari, 2020). It was conceptualized by V. D. Savarkar in 1923 who "promote[d] a single reified 'Hinduism' as the natural matrix of the true Indian nation" (Hansen, 1999, p. 10). He aligned, as other ethno-nationalist movements did, the idea of motherland and nation with that of sacred land (*punyabhoomi*), making Hindus the natural 'sons of soil' who shared a common ancestor, the Aryans, a common language, Sanskrit, and a common Hindu cultural identity. By contrast, Savarkar mobilized a set of 'ideological fantasies' about the 'other' that were based on constructed communal subjectivities, such as the fear that Muslims will outnumber the Hindu population in India because of a higher birth rate (Jeffery & Jeffery, 1997). Since then, Hindutva politics has taken multiple forms, from 'soft' to 'harder' forms of expression, with the constant objective of redefining India's nation and its state as Hindu (Bhagavan, 2008). The revival and liberation of

⁴ Usually defined as a particular form of Hindu cultural and religious nationalism (see Hansen, 1999).

⁵ V. D. Savarkar published his first book in 1923 titled *Hindutva: Who is a Hindu?*

supposed Hindu holy spots from architectural vestiges of Muslim 'invasion' and the 'saffronization' of public space is a common feature in this politics, an approach aimed at diffusing and normalizing the visible presence of Hinduism in everyday life via Hindu gods, *mandir* constructions, religious processions and *yatra* politics (Jaffrelot, 2021; Sud, 2012). This project has materialized in very specific ways in sensitive border areas and with populations historically outside the direct range of Hindutva (Adivasi and Dalit communities), namely the integration and co-optation of minority leaders through tokenistic means – when they are not completely alienated and brutalized (Sundar, 2019; Waghmore, 2022).

The district of Kutch (see Figure 1) epitomizes this trajectory: it has witnessed several waves of 'saffron' and Hindutva politics since Independence, and attempts to redesign and redefine border territories along religious and security lines. This materialized, for example, in the recolonization of Muslim-populated border areas in the 1960-1970s with Sikh and Hindu populations (a process associated with 'saffronization') who were deemed more 'loyal' and 'legitimate' for border protection (Ibrahim, 2008, 2018). This nationalist project gained further momentum following the deadly earthquake that hit the whole region in 2001. Central and state governments decided to turn Kutch's 'vast drylands' into an attractive space for private investors (Kohli and Menon 2016, p. 271). The deployment of tourism, mining, and more recently, wind power in border areas is also part of an increased surveillance of Muslim populations. Here, "development proceeds hand in glove with counterinsurgency" (Ibrahim, 2019, p. 435) and is designed to "transform subversive (or potentially subversive) subjects into law-abiding citizens, who would pose no future threat to India's territoriality and political integrity" (Bhan, 2013, p. 8).

Kutch district was identified as a rich windy region by the National Institute of Wind Energy (NIWE) more than 20 years ago and was framed as a major wind corridor. Since then, thousands of wind turbine projects have been developed by established companies like Adani Power, Suzlon, Vestas, General Electric, Siemens Gamesa, and Électricité de France (EDF). Projects targeting border villages started only four years ago, usually 300 MW each, with 130-150 wind turbines. 'Wastelands' refer to a colonial classification of land that is officially neither exploited nor cultivated and is owned by state governments. It constituted the backbone of colonial civilizing discourses as well as post-independence hegemonic modernism and development projects (Baka, 2017; Kapila, 2022). Wind power projects in Kutch encompass all types of state lands, mostly these so-called government 'wastelands', because these are cheaper and have a faster acquisition process. Local wind power projects also increasingly target village common grazing lands (*gauchar*) which are crucial for cattle breeding and pastoral livelihoods. When I last visited the border in December 2021, two such projects had been fully completed and four were still under construction.

⁶ Singh (2022) discusses in more details the acquisition process of so-called government 'wastelands' and private lands for wind power projects in rural Kutch.

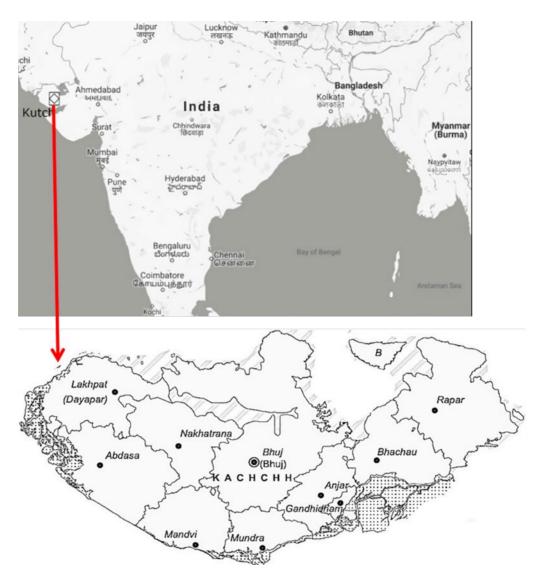


Figure 1: Modified Google Map of India and administrative map of Kutch District, Gujarat. Source: https://www.onefivenine.com/india/villag/Kachchh

4. Methodology

A 7-month ethnographic investigation was conducted in 2021, in villages situated at the edge of the state, in Lakhpat sub-district, the last *tehsil* before the border with Pakistan. One of them, Haroma, is situated a few kilometers away from the first Border Security Force (BSF) checkpoints that punctuate the border. It is populated by nearly 250 Muslim households, practicing pastoralism and seasonal agriculture. Even though most surrounding villages are also populated by Muslim livestock herders, since the 1960s Haroma witnessed an increasing installation of new Sikh and upper-caste Hindu populations 7 in its direct vicinity.

⁷ Individuals mostly belong to Rajputs and their sub-castes Jadeja and Sodha who respectively occupy the nearby villages of Junamay and Amiya.

This border area has been at the center of attention since the Independence: imagined as a 'mini-Pakistan' because of the historical presence of Muslim populations on both sides of the border, it is still framed as sulfurous and dangerous because of supposed infiltration and complicity with Pakistani intelligence. Villages bordering the Rann of Kutch (a large area of seasonal salt marshes on the border between India and Pakistan, see Figure 2) are unreachable and inaccessible, both physically because of their remote location and the lack of roads to reach them, and discursively or ideologically because in the collective imaginary, they are inscrutable. The pastoral nature of the livelihoods practiced by Muslim villagers along the border is precisely the problem, making them 'subversive', 'dangerous' and 'untrustworthy', because pastoral communities have historically been more difficult to control, watch, and fix in one place; they have in a way escaped the full and complete scrutiny of the State (Singh, 2009). Pastoralists in this region have historically travelled and grazed their cattle across the Rann in search of better pastures and economic opportunities, particularly in times of intense drought. They have built strong commercial ties, but also social and family bonds with people on the other side of the border, as marriage arrangements used to take place across this national boundary separating Kutch (India) and Sindh (Pakistan) (Ibrahim, 2018, 2021).

Haroma villagers still share an emotional and painful memory with Sindh and Pakistan, as many of their family members (around 100) got trapped on the 'wrong' side of the border after the 1965 war and were physically separated from their kin. Because of this emotional relationship with Pakistan, Haroma was under intense scrutiny and surveillance from security agencies; it was on the map of border management for years. Villagers were visited for a long time by military men, trucks, and checkpoints; now they have the similar feeling that they have been invaded by wind turbines and their sets of blades, cranes, trucks, and wires since 2018.

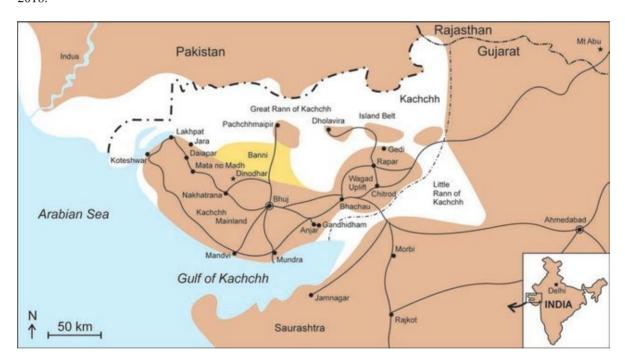


Figure 2. Schematic map of Kutch with its major towns and roads (Fürsich, Alberti, & Pandey, 2013). Temporarily flooded areas of salt marshes in the Great and Little Ranns of Kutch are shown in white. While the emergent land is illustrated in brown, the grasslands of the Banni are shown in yellow. Haroma is situated a few kilometers away from the village named Jara on the map.

Besides an analysis of key documents and literature, I conducted semi-structured interviews and informal conversations with around 60 informants (mostly in Hindi and Punjabi), as well as participant and non-participant observation on wind sites and contractors' camps, in companies and revenue department offices, police stations, in villages, and other places of socialization such as tea stalls, weddings, and religious ceremonies.

Navigating this context of multiple and conflicting identities, agents, and interests was not an easy task. I was caught in the middle of 'green' infrastructure's expansion and nationalist tensions, and for this reason I was constantly asked to pick a side: between villagers and wind companies, between Hindus and Muslims, between upper castes and lower castes. As suggested by Reyes (2020), I was juggling my visible (race, ethnicity, and gender) and invisible (social capital and individual background) positions and strategically using them in different situations to gain access: to state officials and high-profile company representatives, I was a European PhD student pursuing research in English about wind energy in two prestigious universities, while with villagers and local brokers, I was 'the Punjabi guy' or the 'Sardar' (turbaned Sikh) as they would call me due to my Indian origins. Using the visible position (Sikh/Punjabi) would allow me to distance myself from the western background, while the invisible position of having a European background would become social and cultural capital in other situations. I was deemed a troublemaker and a social activist helping villagers oppose wind projects, a company guy or a broker working unofficially for them (the important number of Punjabis and Sikhs working for wind companies did not help me), or a military man working for state intelligence agencies. Alternatively, my religious identity as a turbaned Sikh inclined me, for different reasons, to be more in connection with Hindus or Muslims, upper castes, or Dalits. Everyone looked at me in a way that made sense and that fit their own framework of understanding, and this ensured continuous access to people in the field.

5. Wind turbines as border infrastructures and technologies of control, surveillance and security

In this section, I identify connections and collaborations between the spatial expansion of recent wind extraction projects and older waves of Hindu nationalism discourses. These had similar spatial projects, to recolonize so-called Muslim territories at the border with more 'loyal' (understand non-Muslim) populations. I argue that wind energy infrastructure's biopolitics operates as a platform for Hindutva's territorial control and surveillance agendas, for the performance of state sovereignty, and for reproducing and enforcing borders and national boundaries in reconfigured extractive spaces. The deployment of 'hard' warfare techniques to win the 'hearts' and 'minds' of Muslim villagers surrounded by wind turbines contributes to effectively undertaking extractive operations and managing 'suspicious' populations.

Controlling Muslim pastoralists along the border based on increased access and movement

Windfarms do not have any visible or physical boundaries, walls, or limits. Typically, a single windfarm project of 300 MW is dispersed across large tracts of land, usually scattered around hundreds of locations in a 20 km radius, grouped in little clusters of 15-20 wind turbines covering up to dozens of villages. The windfarm's general shape is physically extended by a whole network of roads, transmission lines and towers, substations, storage areas, and camps for workers and contractors (Figure 3).

In a previous work, I suggested that this specific infrastructural materiality "leads to an on-going, continuous, and cumulative process of landgrab, stretched around space and time" (Singh, 2022, p. 409). Wind power extraction is therefore based on the constant movement and uninterrupted flow of humans, machines, materials, electricity, resources, capital and so on. It requires a constant back and forth movement of company vehicles, cranes, and trucks transporting wind-related material, with tractors transporting manpower and raw material from the contractors' camp to the locations. To operate at its full extractive potential, the wind extractive frontier needs to be constantly fed and supplied with this circulation and flow of human and non-human elements.

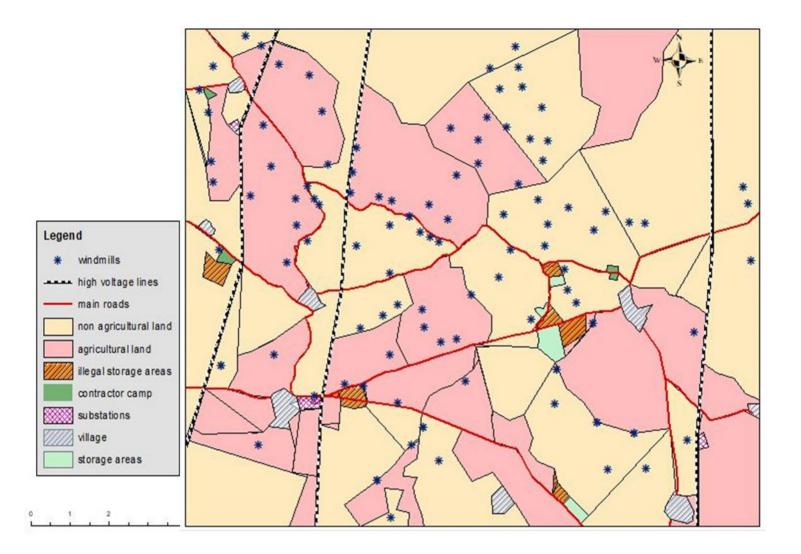


Figure 3: Modified GIS map of different overlapping wind farm projects in Lakhpat tehsil.⁸

Visiting a wind turbine construction site for the first time in the vicinity of Haroma, I came across a local Hindu security contractor, Malisinh Jadeja. He summarized the sensibility of the Lakhpat border areas, paving the way for the crucial role of wind power infrastructure in repopulating these areas and bringing more control and surveillance:

⁸ This modified GIS map does not intend to be exhaustive and map out all the elements of the wind assemblage in this particular area. Some wind turbines might be missing, and also small electrical lines as well as other facilities and installations. The purpose is to simply suggest that wind power expansion is unlimited, invasive, boundary-less and that it extends well beyond the wind turbines.

⁹ All the informant and village names in this article are fictional and have been anonymized to ensure their security.

You know this is a border area here, Pakistan is very near, they have tried many times to come in, on several occasions some weapons were found, and Muslim people were arrested. So, this is very dangerous for the country to let Muslim people become majoritarian in border areas with Pakistan, there are important risks of infiltration, risks that they will give information to Pakistani intelligence services, help them to infiltrate the country. So, from the beginning there was a need to repopulate this border area with Hindus. Then after the earthquake in 2001, Modi *ji*'s plan was to invest in this region, develop the district with big projects, big industries and factories, and by doing so – repopulate the border with Hindus coming from the rest of Gujarat and India. And I think wind power development will help this big project that Modi *ji* started: wind power brings companies, investments, machines, contractors with lots of engineers and workers from all India, so it is also bringing more Hindus on the border. ¹⁰

Malisinh insisted that there was a 'before' and an 'after.' The 'after' is the earthquake in 2001 and the arrival of wind turbines twenty years later, and the thousands of kilometers of roads crossing or following the same exact pasture paths taken by Muslim pastoralists and their cattle. ¹¹ (Figure 3).



Figure 3. Haroma's village cattle-grazing area. Two villagers from Haoma with their goats and sheep, informed me that this paved road had been recently constructed by wind companies, right in the middle of an existing pasture path. (Photo by author)

Indeed, when the 'green' extractive frontier rolls out in borderland Kutch, it is followed by a constant and uninterrupted flow of vehicles, cranes, and machines passing day and night, colonizing and domesticating a hostile, 'savage' and unknown space, way beyond the site of installation. This extends to the villages and populations around them. The arrival of wind turbines in Haroma had far reaching impacts and consequences for its villagers, and Shahid, a youngster from the village, was eager to share his frustration and anger:

¹⁰ Discussion, 17.02/2021

¹¹ The development of roads by companies consists usually in the widening, enlargement and levelling of existing pasture paths and tracks taken by pastorals with their cattle.

Since these people have come into our village with all their wind turbines, wires, and trucks, they don't leave us in peace anymore. They keep coming in and out of the village as they want, day and night, they don't ask us anything, it's like they own the place. They don't tell us when and where they are starting work. We are aware of this only when we see machines and JCBs coming. *This is not our village anymore; this is slowly becoming the companies' one* [emphasis added]! They always keep an eye on us, what we do, where we go.¹²

With the arrival of wind turbines, the villagers of Haroma have slowly lost the right to exercise control over their own village and decide how to engage with outsiders, particularly "determining constantly who is to be let in and when" (Ibrahim, 2021, p. 48) and ultimately who is not. Wind power expansion in so-called 'Muslim areas' along the border has opened a breach, a physical and discursive breach in what is constructed as the space of the 'other', a space that in the Hindutva framework needs to be taken back and simultaneously opened to the eyes and scrutiny of the state, but also to the common (Hindu) man:

We have done a lot of development there, we have created and opened up so many roads, so many access in this area. Now you have boleros, trucks, heavy vehicles and cranes who move around daily. Wind power has brought some light and attention on this area [emphasis added]. Now, everyone can go there, everyone can access this area with his car, everyday companies keep coming, moving from location to location, from village to village, going in and out. Wind power has brought security and control in this area, now if they [Muslims] do something everybody knows, everybody can see and report [emphasis added]. The wind turbines and the companies, they will literally sit in the middle of these people. It is the same thing they have done in the Rann of Kutch with tourism projects, now everyone can go there, visit this place, take pictures, and have a look at the border. [13]

This respondent was recruited from the neighboring sub-district of Nakhatrana and was working for a foreign wind company near Haroma. He was the first one to openly acknowledge that the infrastructural materiality of wind power (based on access and movement) was producing more control and security in this border area: it was bringing "some light and attention" as he said. Access via roads is indeed primordial in controlling space, as well as occupation with constant movement and flows. This allows a (suspicious) oversight of the negative 'other', bringing 'them' closer to 'us', or "closer to control and surveillance" to quote a police informant. ¹⁴

When company representatives face a recalcitrant Muslim villager who opposes projects or refuses to vacate his land, they mobilize upper-caste Hindu networks and contacts in the area and do not hesitate to resort to violence and threats to make him change his mind:

When it involves Dalits or Muslims' lands, the companies try to frighten them, using the uppercaste communities and their local power in villages, they approach local goons from Rajput community and give them full power.¹⁵

¹² Discussion, 27.11/21

¹³ Discussion, 10.06/21

¹⁴ Discussion, 22.10/2021

¹⁵ Discussion, 15.01/21

What this Dalit rights' activist meant by 'full power' is intimidation, humiliation, caste atrocities, and anti-Muslim violence, in the same way that happens in other parts of Kutch. 16 This caste-and-religious-based form of muscle power is common in other Indian extractive contexts, where power hierarchies are regularly exploited and locally known 'big/strong men' are mobilized by private companies to enforce extractive projects via brutal means (Berenschot, 2011; Jeffrey, 2001; Michelutti, 2010). On some occasions, this muscle power is coupled with a state-sanctioned form of violence. I observed on the ground a complete privatization of the state police force and its blending with upper-caste power. The monopoly of legitimate violence is deployed for the sole benefit of wind companies and their fixers, sanctioning private orders and decisions regarding land acquisition. At least one company I regularly encountered had a dedicated police task force of five policemen stationed permanently at the employees' hotel and deployed on the ground, on sites and locations via private company vehicles to deal with non-cooperating villagers. This concretely materialized in helping upper-caste Hindu brokers and fixers to physically dislodge a Muslim villager from his land, imposing 'law and order' during road blockades and protests, or simply escorting company representatives as they 'convinced' borderland populations to accept contracts and money. As in other places in Gujarat and in the ongoing formation of a Hindu rashtra (Hansen & Roy, 2022; Jaffrelot, 2021), the state's legal and coercive apparatus (the law and police) is now fully mobilized to back up Hindu nationalist 'saffron' and 'green' extractive imperatives.

Wind extraction-specific material, spatial, and infrastructural characteristics have the power to organize life and death. Most importantly, they have the power to control the circulation, movements, and daily routine of populations deemed 'suspicious' by the state. Deployed in a certain socio-religious and political context, such as Kutch's borderlands, wind infrastructure biopolitics is highly suitable for 'hard' techniques of control, surveillance, and security emanating from a diversity of private actors pursuing extractive operations and aligning with exclusive discourses of Hindu nationalism *vis-à-vis* the Muslim 'other.' The 'green' extractive frontier, as argued by others (Dunlap, 2020; Dunlap & Jakobsen, 2020; Verweijen & Dunlap, 2021), operates as a counter-insurgency mechanism and as a tool for control and subjugation, imposing in this case a single way to belong to the Indian nation.

60 years later, Sikhs (wind staff) still 'keep an eye' on the border and Muslims

As wind turbines turn into infrastructures of control, surveillance, and security in borderland territories, wind company staff, who circulate and move daily in these new extractive territories also themselves become border enforcers, protectors, and agents of everyday control and surveillance. Companies do not randomly assign their staff to border areas like Haroma or the area around Hajipir. They rely heavily on the history of successive 'saffron' waves that took place in Kutch and the problematic role that non-Muslim populations (Sikhs and Raiputs) have played as border enforcers or watchers. When they are not recruited from Raiput communities living in nearby villages like the Rajput Sodha mentioned earlier, most of the companies' representatives who are given clusters to supervise in border areas of Lakhpat are Sikhs and Punjabis. Indeed, Sikhs, as an ethnoreligious minority group in India, have always played a sensitive and problematic role in both the British Empire and the Hindu nationalist framework. Being imagined and constructed as a 'martial race' by the British army officials, a designation that classified certain castes as typically brave and well-built for fighting (Fox, 1985), they were highly encouraged to join the British Army and fight for the Empire. Their subsequent implementation on Kutch's border in the 1960s precisely relied on and supported this colonial representation, their alleged skills for battle, determination, and hard work in situations of difficulty. Finally, the Hindutva framework has always engaged with this minority group in a much more positive way than with any other (particularly Muslims), as Sikhism is still imagined as a member of the big 'Hindu family' (Moliner, 2011).

I have made quite a lot of wind site visits with Harjinder Singh, an engineer supervising the mechanical team of an Indian energy company and coordinating the different contractors for a given cluster of 15 locations south of Haroma. Harjinder is a 30-year-old Sikh who comes originally from Jalandhar in Punjab but has settled

¹⁶ During my fieldwork period, I heard of several cases of caste atrocity and anti-Muslim violence perpetrated in different tehsils of Kutch: https://timesofindia.indiatimes.com/city/rajkot/dalit-family-attacked-for-praying-at-temple-in-kutch/articleshow/87317253.cms; https://www.counterview.net/2021/02/kutch-communal-violence-provoked-to.html

in Bengal since his childhood. He joined the energy company three years ago, and his first workstation was in Kutch. Since the beginning, he has been awarded mostly borderland clusters populated by Muslim pastorals and has developed close relationships with people he calls 'my locals.' With his large orange *damala* styled turban and his impressive height, Harjinder is respected by the local Muslims he interacts with during his workday, is always greeted with a 'Sat Sri Akal Sardar-Ji' (a salutation related to Sikhs and Punjabis) and not the usual 'Namaste.' But as he develops friendly relations with them, he is also a problematic border enforcer and border protector, constantly controlling and monitoring the movements of Muslim pastorals in his cluster and reporting those he deems illegal and suspicious. Harjinder Singh recounts:

Once there was a guy claiming to come from Bengal, and he was asking for the road to Hajipir Dargah, but I found his Bengali a bit unfamiliar, he was using a dialect I never heard before. I told him to sit in my car, and I brought him directly to nearest police station. And I was right to keep an eye on him, he was an illegal Bangladeshi migrant trying cross the border with Pakistan.¹⁷

Harjinder is referring here to this collective hysteria and fear about illegal and infiltrated Muslim 'Bangladeshi'¹⁸ migrants that has been sparking intense debates in past years (Ibrahim, 2018). His statement also confirms that wind power infrastructures are at the crossroads of territorial control, surveillance, and security on the margins of the state. They reveal their contested political nature as infrastructures of power and domination embedded in struggles over belonging and identity, over who is and who is not a 'true', 'loyal' and 'legitimate' citizen. Wind turbine infrastructures take part in and enforce in new ways the exclusionary and racialized citizenship and security regime that was built in India after 1947 and has been imagining Muslims as the 'other', negative second-class citizens (Chatterji *et al.*, 2019; Ibrahim, 2021; Jayal, 2013). Draped with "an air of legality" (Lund, 2022), endorsed by the coercive powers of the law and police, and the unquestionable argument of working towards 'national security' and 'development', wind companies advance in these seemingly 'conquered' territories with a strong sense of impunity and untouchability regarding their extractive operations.

Border infrastructures and performance of state sovereignty

Wind power expansion over the Lakhpat border area shapes a securitized, scrutinized, and permeable territory. The only other trucks, cars, and tankers navigating through this zone are owned by the BSF or by the few mining companies that erupted a few years ago on the border. Wind power and its complex ecosystem of wind turbines, CCTV camera, cables and lines, electrical poles and substations, contractors' camps, and storage areas enforce, materialize, and bring the border to life in a comparable way that military trucks, BSF camps and their flags, checkpoints, and their restricted and notified zones do. Wind infrastructures produce and reproduce borders and existing national boundaries for both outsiders (Pakistan) and insiders (Indian Muslims) paving the way for more extractive activities on these 'empty' lands near the border. They physically and materially become border infrastructures, standing on the edge of the nation between India and Pakistan (Thomas, 2021).

On some occasions, the wind complex aligns with and even blends with the military complex, with wind and military forming a new conglomerate where each of their prerogatives and jurisdictions have been renegotiated. Narendra Modi visited the Rann of Kutch and the border with Pakistan in December 2020 to lay the foundation stone of a hybrid low-carbon park of solar and wind infrastructure. This ongoing project undertaken by companies like Adani is indicative of the political nature of putting wind turbines right on the border, on land owned by the BSF. Indeed, in early 2020, the Government of Gujarat announced, with great fanfare, that 60,000 hectares of 'wastelands' (nearly the size of Greater Mumbai) had been cleared and allotted to a megaproject of 30,000 MW, generating 1.5 trillion Indian rupees (210 billion US dollars) of investment. The exact location of the project was not communicated in the media until Narendra Modi visited Khavda, the

¹⁷ Discussion, 16.06/21

¹⁸ A shorthand name for anyone coming indistinctively from West Bengal or Bangladesh.

last village and BSF camp before Pakistan on the northern flank of the border, up in Bhuj. I could not personally access this project because of administrative and security issues, but the data available that I have collected in the newspapers and on social media is extremely relevant. In his inauguration speech, Modi drew a direct connection between wind turbine implementation and national security and even mobilized the rhetoric of border repopulation through development programs:

Earlier there used to be a continuous exodus in this border area and the population also recorded negative growth. Elsewhere, the population was increasing and here it was on the decline, because most of the people in the border areas used to migrate. As a result, there was naturally a problem of security. Now that the migration has come to a halt, people are returning to villages which were once deserted. It has also cast a huge positive impact on national security. [...] The border security will also improve with windmills along the border. ¹⁹

Kutch's border with Pakistan is indeed not rigid and fixed; it is not materialized with any fences or walls. The natural environment of Kutch, constituted by earthquake-formed lakes and creeks that change their path over time or large areas of seasonal salt marshes and deserts like the Rann, shapes "borders' inherent recalcitrance" to the state's attempts at fixing and enforcing national boundaries (Thomas, 2021). In this context, wind turbine and solar infrastructures materialize and embody the border in a new-fashioned way. They become key "site[s] for the performance of [state's] own sovereignty in its borderlands" (Ibrahim, 2019, p. 428) and for the expansion of extractive imperatives to new areas.

This project is also about symbols, national pride, and glory; it acts as a display of power and technology towards the 'other' on the other side, Pakistan, rather than pure and optimal electricity production. Putting wind turbines in the middle of the Rann, an area very sparsely populated and mostly occupied by the army, is also a strategy to avoid controversial land acquisition and potential resistance from local populations to the disastrous consequences of wind energy extraction. I interviewed the representative of a big Indian energy company working on this on-going project over the past 10 years, and he emphasized the political nature and the difficulty of the project:

The 30 GW project in Kutch, bordering with Pakistan, it's a very big target, even realizing 20% of it will be difficult. It was dormant for the past 10 years and then everything got accelerated 2 years ago. The state government choose this area only because they needed a place with no population at all, no risk of villagers agitating, and it was also about national pride, it was also about sending a message to Pakistan: see, we are more advanced than you, we put wind turbines and solar panels on the border.²⁰

Borders are *par excellence* the private domains of the state, and for these reasons, borderland populations are subjected to 'hard' techniques of population management through everyday surveillance, security, and control. Borders are sites where the state's authority and sovereignty are exercised and expressed in even more intense, violent, and masculine ways, shaping in return specific border citizenship (Bhan, 2013; Cons & Sanyal, 2013; Sur, 2021). Wind turbines, as border infrastructures, are fully permeated by these projects of statemaking, border-making, citizenship-making, and unmaking. They are also entangled with everyday caste and religious conflicts over money, honor, and space.

¹⁹ Modi's speech, online translation, 15.12/20

²⁰ Discussion, 10.02/21

6. 'Saffronizing' the 'green' or 'greening' the 'saffron': Caste and religious conflicts over wind, money and space

The wind assemblage has not remained neutral or external to the constant competition and struggle taking place locally between Hindu and Muslim village(r)s for money, space, and honor. On the contrary, wind companies have understood that they can exploit these contradictions and tensions to their advantage, using money as an effective 'soft' counter-insurgency tool to 'win', or in more appropriate terms – buy "the hearts, minds and acquiescence of the population" (Kilcullen, 2006, p. 29). The wind assemblage and its representatives openly declared affiliation with a nationalist project of cultural identity revivalism and territorial reconfiguration. Wind turbines and their agents of enforcement sported and celebrated constant rituals of loyalty, patriotism, and religiosity (Sud, 2020, 2021). Wind turbines nurtured an everyday and 'soft' Hindutva presence in 'Muslim-dominated' areas and slowly contributed to the design of a pure vegetarian, upper caste, and Hindu territory. The available financial windfall and money coming from various compensations, contracts, and commissions on land transactions unleashed a fierce and quotidian struggle with competition between Hindu and Muslim village(r)s to either support or oppose wind companies.

Local wind enforcers, Rajput village(r)s and territorial reconfiguration: A pure vegetarian, upper-caste, and Hindu territory

I have mentioned in the previous section that companies' representatives assigned to border projects, when they are not Sikhs and Punjabis, are usually recruited locally from the dominant landowning Rajput communities. This is even more true for all the contractors, brokers, fixers, and other 'strongmen' who enforce projects on the border. Drawing on wind turbine expansion to new areas like Haroma village, these enforcers and mediators of the wind assemblage saw an opportunity here to accomplish their 'mission': assert and reassert Hindu pride and visible upper caste presence in 'Muslim spaces.'

As I shared daily routine work with such enforcers, on wind sites, contractor camps, or at tea stalls, I could observe how their everyday interactions with Muslim village(r)s were grounded in distrust, suspicion and conveyed the same sort of representations about the 'othered' Muslim discussed earlier in this article. Malisinh Jadeja, the security contractor I mentioned earlier, is a nice example of the conflations that exist between his active role in the 'green' extractive frontier and his ardent support for right-wing 'saffron' Hindu nationalist discourses. Malisinh is a wealthy Rajput Jadeja farmer who owns 50 acres of land in the neighboring sub-district of Abdasa and turned into a fierce security contractor four years ago when the first wind companies arrived in Lakhpat, thanks to his networks and contacts in the BJP. On a usual tour of the wind turbine locations he supervises, we approach a Muslim village situated a few kilometers away from Haroma. Because Malisinh assumes I share his political views, my interlocutor expresses, with much less restraint and barriers than in the public space, strong anti-Muslim stances:

You see, it is like Mini-Pakistan here, didn't you have the impression we have crossed the border and we have reached Karachi [laughing]? Honestly, you can't make any differences with Muslims from the other side of the border. They wear the same clothes, have the same beard, and these people are very recognizable, identifiable, their body is not like us Gujarati, they are not organized physically like us, they are much bigger, imposing, much dangerous [emphasis added].²³

²¹ Rajputs belong to the warrior aristocracy and ruling upper caste, and for this reason they embody masculine attributes of power, strength and muscle *par excellence*. They were also classified by the colonial administration as a 'martial race' (Rudolph & Rudolph, 1984).

²² Rajput communities are overrepresented among the categories of contractor, company staff, fixer of land broker. Among the 24 informants that were labelled under one of these categories, 13 are Rajput. On the socio-economic and caste profile of brokers and fixers of the wind assemblage in Kutch, see Singh (2022).

²³ Discussion, 01/04/21.

When Malisinh specified 'us Gujarati', he obviously meant Hindu, and, most importantly, the upper caste people. This quote is extremely relevant to the historical construction of the Muslim body by Hindu nationalists as ill-disciplined, dangerous, and posing a threat to Hindus' survival. Imagined as more virile and strong, their sexuality is scrutinized and portrayed as hyperactive and aggressive, potentially abducting and harming the monolithic and upper-caste Hindu woman (Corbridge, 1999; Ibrahim, 2018; Jeffery & Jeffery, 1997).

Wind extraction implies spending most of the day outside, moving between villages and locations, contractors' camps, and company guesthouses. For these reasons, contractors, fixers, and company staff interact directly with the space they intend to change. At lunchtime, they mostly avoid places serving meat or owned by Muslims and prefer vegetarian restaurants like the *Sardar Hotel* in Dayapar, owned by a descendant of the first Sikhs who came in the 1960s. They also avoid drinking *chai* (tea) at stalls owned by Muslims or in Muslim villages, having developed habits and friendships with tea-stalls owners in Hindu villages. When we moved in the area of Haroma, the companies' staff and contractors I accompanied never stopped by the tea-stall and shop in front of the mosque, nor did they ever enter the village but always bypassed it. For their regular *chai* breaks, they would rather make a detour and go back to the nearby Junamay village, where the tea stall is owned by a Hindu Rajput person.

Constantly moving, occupying, and physically covering 'Muslim' spaces with their everyday physical presence, wind enforcers like Malisinh ostensibly sport affiliation to upper caste Hinduism, BJP, and Hindutva: you can spot upper-caste names ('Jadeja', 'Sodha') written on the back of company vehicles, and saffron and BJP flags hooked on the inside mirror, particularly during election times. Contractors' camps and their machines sport saffron flags and images of Hindu gods; some of the wind turbine sites even have their own dedicated *mandirs* (temples) and saffron flags. On my first visit to Haroma with company staff in early April 2021, I remember spotting in the distance a wind location surrounded by a dozen saffron flags. On my second visit to the village in June 2021, I managed to find this location with Shahid, the youngster from the village I was first introduced to. When reaching the location, Shahid specifies that although the security guard here is from Haroma, the civil contractor working on the location is an upper caste Rajput, and for this reason, with his fellow villagers, they constructed a new *mandir*. As more and more wind turbines get installed around Haroma village, more Hindu temples are being constructed, confirming Hindu presence over the whole space. All this visible presence of upper caste Hinduism materialized in the public space via the new 'green' extractive frontier seems to indicate and notify the 'other', the Muslim villager from Haroma, that part of 'his' territory has been reclaimed.

For Hindu villagers from the only two Rajput villages in the area, Junamay or Amyia, supporting wind companies or opposing them with blockades was a way to reassert religious and caste domination *vis-à-vis* neighboring Muslim village(r)s. It was a tool used by upper-caste Hindus in their everyday competition with Muslims for space, for symbols, and wealth. Rajput villagers of Junamay or Amyia alternatively opposed new locations in their village when security jobs coming under their 'jurisdiction' were awarded to Muslim villagers, their 'jurisdiction' being broadly defined as any Hindu village in the wind corridor; on the contrary, they voluntarily took contracts and supported wind companies inside and outside their own village when the opponent was a Muslim. I had a discussion with a Rajput (Jadeja) villager from Amyia who mentioned that he was currently opposing towers and transmission lines in his village, for the main reason that the contract had been awarded to a Muslim villager from Haroma and not a Hindu (from Amyia or even Junamay):

I won't stop blocking the construction until the contract is given to me. I will teach this Muslim a lesson. They think they can get all the money and the contracts from wind in the area because they are in majority, but we Rajputs are not afraid of anything.²⁴

Rajput villagers find themselves in a constant competition with Muslims to grab all the contracts as security guards, transporters (4x4 car drivers), and small-scale civil contractors; to monopolize individually and

²⁴ Discussion, 04/03/21

collectively (as a village and as a caste) all the money available from wind companies. Grabbing contracts, money, and compensation coming from wind projects via alternative support or opposition is precisely what helps Rajputs win the competition for success and wealth in the area, to win the symbolic struggle for images and sounds, and also to take their revenge on Muslims. Wind contracts and money obtained after bargaining also largely fund the underpinning project of 'saffronizing' space and building a Hinduized territory after it had become a 'green' extractive one:

We negotiated 250,000 Indian rupees (3,500 US dollars) per wind turbine location with companies, but we didn't do the Haroma system where they distributed money to each household. Instead, we invested the money in two new *mandirs* and one big community hall for our events, weddings and parties. It is the big building you can see here. Last month for *Navratri* [a Hindu celebration], we organized a big celebration there, everyone could hear our speaker, even in Haroma they could hear it. With all the wind money, people got pretty rich in Junamay. Now everyone has a Scorpio or Bolero²⁵, everyone has learned Hindi with the arrival of companies, and we even go to Ahmedabad. Everybody has money in the village, it's not like in Haroma where they are really poor, so we didn't give money to households but preferred to put that money for our *mandirs*, our religion and community events. ²⁶

Muslims, wind money, and honour

In Muslim villages, supporting or opposing wind companies simply did not have the same meaning as in Rajput and Hindu village(r)s. Muslim villagers I have encountered in Haroma and in neighboring villages, all expressed the same concern: supporting or opposing wind projects is about defending the reputation, honor, and name of their village, their caste, and their religion, and by extension, acknowledging the authority of their respective leaders. It also expresses a profound wish to reclaim rights, existence, and belonging to this territory, which is both coveted by wind companies' representatives and Hindu nationalists.

In Haroma, villagers unanimously supported their sole and unique political, religious, and caste leader, Hassan bhai, who acts as the village head and former president of the *tehsil panchayat*, in mediating and brokering companies' projects in the village in exchange for jobs and money. It was a way to acknowledge and recognize his leadership, authority, and legacy inherited from his father. All the positive evolution and progress in the village (in terms of road construction, money, and jobs related to wind turbine arrival) were all affiliated with and attributed to the 'good' leadership of Hassan bhai and his willingness to work for his fellow villagers. The analysis drawn by Farhana Ibrahim in the different context of development programs conducted under the leadership and 'charisma' of a Muslim leader in the Banni region of the Rann is highly relevant here: "all the development projects [...] are rescripted as miracles and prophecies set in motion through [Hassan bhai]'s charisma and foresight rather than an imposition from the state administration" (2021, p. 45)

Using that logic, the arrival of wind turbines in Haroma was more a consequence of Hassan bhai's *fait du prince* and his willingness to let the companies enter the village, than a pure imposition from the state or the companies. My initial entry into the village and later ins-and-outs were even conditioned on his expressed approval. But more generally, following Hassan bhai in either supporting or opposing wind companies was a way to defend the name and reputation of their village (Haroma), their caste (Mandra), and their religion in front of contractors and company's representatives who are mostly Hindus and Rajputs. Hassan bhai crystalizes and concentrates Haroma villagers' pride, reputation, and honor as Mandra and as Muslims; he crystalizes and embodies all their hopes and expectations for success and improvement.

The arrival of wind turbines in the Haroma corridor in 2018 has certainly strengthened and exacerbated the underground frustrations and tensions that pre-existed between the different communities, between Hindus and Muslims, between Mandra and Rajput, and between Haroma and Junamay villagers. The everyday

²⁵ The Mahindra Scorpio and the older Bolero are 4x4 diesel powered SUVs assembled in India.

²⁶ Discussion with a Rajput villager from Junamay, 05/12/21

frustrations and competition that pre-existed between Muslims and Rajputs converted into an open race to control and corner all the money, contracts, and jobs coming from the wind assemblage. Company representatives have managed to turn this situation to their advantage, dividing and segregating villagers and contestants along caste, religious, and village lines, as not everyone gets money. In many instances, companies try to bribe one caste against another in the same village, award a local contract to the leader of the resistance in order to end a village-level contestation, or seemingly give a contract to a Muslim from a different village until the Hindu contestant accepts the companies' deal or even agrees to do the same work at a cheaper price. "Violating the social norms" of reciprocity and trust and exploiting the existing skirmishes, frustrations, and anxieties between Hindu and Muslim village(r)s, company representatives and their supporters have been active "agents of social dissolution" through the use of "softer" means of compliance like money and contracts (Levien, 2015, p. 88), undermining the potential for collective action against their extractive projects.

Wind turbines and those who install them on a daily basis have also taken a clear stance in this everyday competition and frustration. They have 'greened' their 'saffron' project of territorial reconfiguration and cultural identity revivalism with their arrival of wind turbines, but they have also literally 'saffronized' their 'green' infrastructures with a set of saffron flags, upper-caste names, and Hindu gods. 'Green' extractive and 'saffron' frontiers were brought together in Haroma's wind corridor by the unique biopolitics of energy infrastructure and its power to organize life, reproduction, and vitality through ethno-religious and caste identities.

7. Conclusion

This article has exposed the compatibility of 'green' extractivism and low-carbon wind infrastructures with extremely authoritarian and ethno-nationalist projects of territorial reconfiguration and racialized citizenship-making along a unified and upper-caste Hindu cultural identity. In the context of a rising "authoritarian fix" within neoliberal capitalism (Bruff, 2014), 'green' extractivism and the global race after low-carbon resource materials constitute a major opportunity for national-populist governments like the BJP to impose a socially conservative *status quo* via violent modes of manufacturing consent.

I argue that extractivism and ethno-nationalism foster new and important frontiers as they redefine political relations between nature, people, and space on a 'blank slate' basis. These frontiers converge even more tellingly with infrastructure, where they produce violent regimes of governing and citizenship that racialize, differentiate, value and devalue human conduct, including and excluding different populations. The specific case of Kutch constitutes an empirical picture of what a so-called decarbonized world will look like – more extractive, dispossessive, and increasingly targeting vulnerable populations. The article also exposed future energy transition pathways that are insensitive for now to questions of democracy, inclusion, justice, and emancipation. This picture does not augur encouraging political outcomes for the future of India's democracy under Modi's neoliberal, authoritarian, and ethno-nationalist regime.

Installed in sensitive Indian border landscapes such as in the Kutch district, wind turbines merge with extractive imperatives to control and constantly occupy space and the performance of state sovereignty. These characteristics align with militarized border-making practices, 'hard' warfare techniques of population management, and increased surveillance that have been targeting Muslim borderland populations since the Independence. These 3-bladed turbine machines and their complex extractive assemblage of (non-)human elements embody a recovered upper-caste Hindu identity and its everyday material presence of temples, flags, and gods in public space. Companies also develop 'softer' means of infiltration and persuasion as they make sure village(r)s fight and compete with each other along existing caste and religious identities to grasp the small amount of money and jobs available. These findings directly contribute to political ecology's core argument that we need to look beyond the limited scope of installation sites and understand current energy regimes through a broader set of interrelated political, ecological, and social impacts. The current energy regime in India and its low-carbon version are fueled by a national political regime of exclusion and segregation.

The case study presented here is no exception. Increasing reports and findings coming from other parts of the world point towards the same direction: oppressive 'green' extractivism that merges with authoritarian regimes, militarization of borders and racialized conceptions of space and identity (Allan *et al.*, 2022; Dunlap, 2018b). In light of these developments, it becomes an urgent necessity to imagine alternatives to the ongoing

'green' extractive frontier that are profoundly anti-fascist, anti-caste, and anti-racist in nature. Crowley (2022) and Sharma (2017) provide valuable insights into what this emancipatory and equitable alternative energy regime may look like: anti-caste and anti-racist modalities of energy find important inspiration from the prominent Dalit leader B. R. Ambedkar and his critique of Brahminical (upper caste) Hinduism. Breaking with the Brahmanical Hinduism visions of nature through essence, permanence, and fixity, Ambedkar asserts the need to recognize "that there is nothing fixed, nothing eternal . . . that everything is changing, that change is the law of life" (1936, p. 79). This critique brings Ambedkar to a complete rethinking of the world, and particularly a reconceptualization of democracy, through ideas of impermanence, interdependence, and interconnexion. This anti-caste philosophy gives us a set of valuable tools and discourses for disrupting contemporary extractive and ethno-nationalist energy transition pathways and building alternative solidarities.

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