Gyratory planning.
The green transition's productivism and wind power around Foggia

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This paper sets out to question the productivism that undergirds the green transition and impacts a specific territory and landscape in the Italian South, as a particular geography of the so-called Global South. In doing so, it seeks to question the logic at work within the implementation of wind turbine projects in the province of Foggia. The strategic reports and environmental assessment tools of territorial planning promote and legitimate this productivist orientation. The article in fact will firstly move from national

Introduction

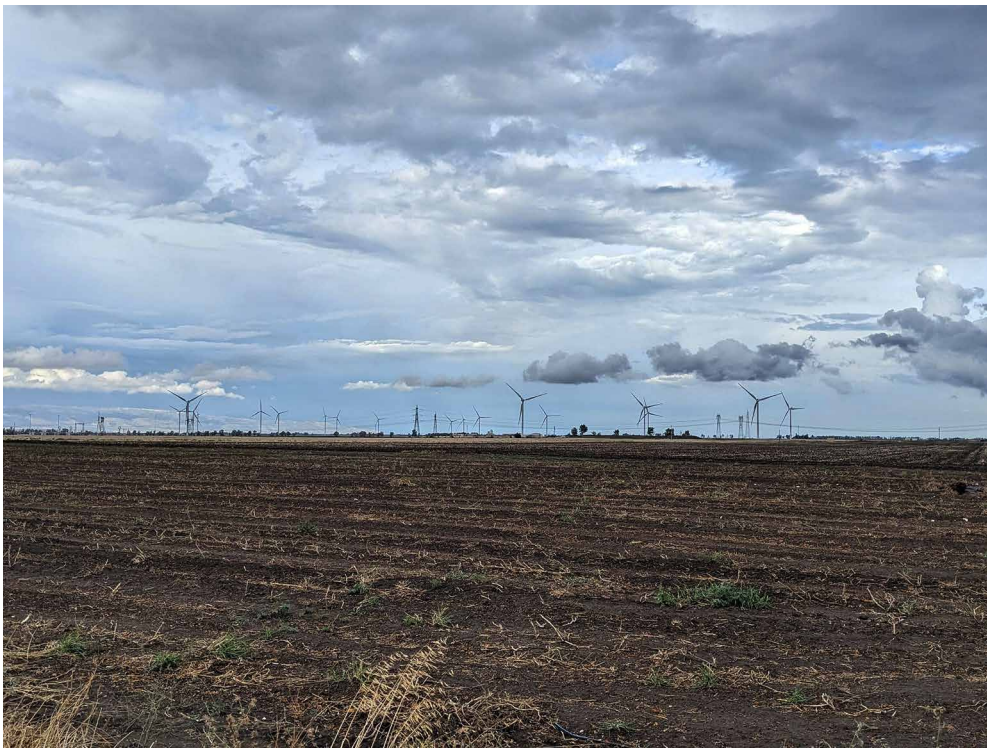
A particularly overcast September sky frames the Gargano promontory and the lanky figures of wind turbines in front of it. The dark and black earth underneath them is loaded with water. Much sought-after rain over the last few days has calmed down farmers and agri-food businesses in the province of Foggia for the moment, at least until the next drought. High winds peaked during the storm that has just blown over: today, the *Capitanata*, the geographical and historical region whose main urbanised area is Foggia, is not only one among the Italian national territories of agro-industrial production and workers' exploitation—most often under the mediatic spotlight on so-called "informal settlements" and the violence of "*caporalato* capitalism" (Perrotta and Raeymaekers, 2022)[1]—but also a site for the putatively-free appropriation of Nature's work or energy, in this case, that of wind.

Wind and the green infrastructure now posed to appropriate its energy are somewhat under investigated natural-infrastructural features of the Green Transition. Wind, compared to other

strategies of decarbonisation in Italy to the specific planning apparatus sustaining the green transition in Italy southern region of Puglia. Three specific wind turbine projects in the province of Foggia will then be considered: three wind farms respectively in the municipality of Ortanova, Borgo Tressanti and Borgo Mezzanone. The wager is that under the current productivist auspices of the Green Transition, wind energy production requires a form of gyratory planning that, trading on the legacy of internal colonialism and uneven capitalist development, reproduces the growthist paradigm of green capitalism. In doing so, gyratory planning warrants more infrastructure, while creating green sacrifice zones and seizing on the deprivation of rural organised abandonment.

geo-climatic elements of the Earth's biosphere which operations of extractive capitalism target in order to power the shift to more "sustainable" modes of production, is an invisible force of a seemingly unobtrusive and inappropriable order[2]. Yet, wind power infrastructure is at the forefront of the contemporary project to decouple emissions from growth, while keeping economic and political structures intact along with the logic of production which undergird them. Such a project however does not prevent capital from doing what it inherently does: grow (Hickel and Giorgos, 2020). In this sense, this paper seeks to contest the "productivist lineages" (Green, 2022) contained within visions of the Green Transition that sustain "a Keynesian commitment to a virtuous circle of rising investment, full employment, increasing income, and economic growth"; a legacy "both premised on the denial of ecological limits and tarnished by its historical association with environmental destruction" (ivi, p. 325).

In Green Transitions, energy, "as a socio-material apparatus that flows through political and cultural life" (Daggett 2019, p.3), is at the forefront of this unabated logic; including in the EU, given that production and use of energy constitute over 75% of its greenhouse gas emissions[3]. Equated to fuel in the 19th century and driven by "the gospel of labour and its veneration of productivity" (p.5), energy has since been one of the prime objects (and objectives) of modern politics. In this sense, "most visions of energy transition and fossil fuel divestment remain allied to the ideals of dynamism, efficiency and productivity" (ivi, p.186). In doing so, the production of energy and its productivism act as "a political rationality which justifies extractivism and imperial capitalism" (ibidem), building on the legacy of colonial projects to appropriate



Wind turbines around Orta Nova.
Source: Stefano Mastromarino
Fig. 1

and put to work all of the Earth's energy sources, while, quite simply, glossing over the fact that "having ever *more* energy is incompatible with multispecies life on Earth" (ivi, p.2). We might thus understand the Green Transition as indeed an *energy transition*, which finds in wind a perfect ally for its end of "green" production, consumption and accumulation. The EU's Green Transition policy in fact favours an acceleration in renewable energy, although such an advancement is currently not able to replace fossil energy production, since renewables are being added to an energy mix, rather than ushering in an actual post-carbon transition. Today's "war regime" (Mezzadra and Neilson, 2024, pp. 128-132) is moreover further thwarting ecological goals, as energy transitions intersect the militarised needs of energy security (Olivares, 2023) and, thus, increasing demands for *more* production[4]. Central to this contribution is the fact that more production for more energy means more infrastructure, and thus more impacts on territories. On the contrary, following economist Jeremy Green, among others, we might argue that today's production (and overconsumption) rather invites a "decelerated political economy" (Green, 2022, p. 337).

This text thus seeks to question how such a form of productivism undergirds planning tools and impacts specific territories and landscapes trading on the legacy of internal colonialism

and uneven capitalist development. In doing so, it sets out to upend the rationale behind the implementation of wind projects in Foggia's province. Energy projects, in the Mezzogiorno—Italy's Southern regions and its Islands—have indeed been premised on extractive practices which expose a state of continuous primitive accumulation, one that characterises colonial enclosures and appropriations (Orizzonti Meridiani, 2014). Indeed, this paper will align to the numerous positions that consider the Italian South as a specific geographical and historical site of the so-called Global South, beyond rigid European/non-European contrapositions[5]. What follows is therefore divided in three sections: the first will consider the general planning apparatus sustaining the Green Transition in Italy's Southern region of Puglia and the *Capitanata*; the second will look into three specific wind turbine projects in the province of Foggia; the third and last section will finally extract some thoughts for discussion regarding green transitional planning in this specific Global South. Indeed, the wager is that under the current productivist auspices of the Green Transition, wind energy production requires a form of *gyratory planning*, a notion and quip inspired by the turbines' very motion. Gyratory planning is used to indicate a planning strategy that, in order to overcome the complexities of capitalism's transition to sustainable modes of production, contributes to the preservation of an overruling economic productivism while entrenching forms of rural organised abandonment.

The Green Transition. Renewables in the Mezzogiorno and Puglia

The province of Foggia, north of the southern Italian region of Puglia, is the third Italian province by extension but at the low end in terms of population density. The latter has moreover spiralled downward in the last three decades, leaving visible signs of this abandonment all over the province: farmhouses (*poderi* or *casolari*) and entire rural towns [*borghi rurali*] left over from the reclamation and internal colonisation project of Italian Fascism (Protasi and Sonnino, 2003). The sparse distribution of the local population is noticeable when cutting through the vast horizon of its predominantly rural territory by car. The flat expanse of agricultural land gives the turbines an even loftier and more towering appearance; their sheer number gives this impression even more striking.

The Italian National Energy Strategy (*Strategia Energetica Nazionale* - SEN) is a 2017 long-term plan that sets the objectives and guidelines for the management and development of the country's energy resources. Such a strategy partly contains indications regarding the goal to reach decarbonisation by

2030 and 2050 put forward by the European Green Deal, which is more operatively being received, planned and implemented in Italy through the long-term PNIEC (*Piano Nazionale Integrato per l'Energia e il Clima* 2030), the short-term PTE (*Proposta di Piano per la Transizione Ecologica*) and the post-pandemic PNRR (*Piano Nazionale Ripresa e Resilienza*): State programmes which function as part of or in coordination with the Next Generation EU and the EU's 2021-2027 Multiannual financial framework. The complementary support offered by each of these plans aims at formulating an operative strategy for the Green Transition, understood as "a commitment to large-scale and rapid economic transformation linking decarbonization with major investment and job creation" (Green, 2022, p. 325). What follows will focus on the impacts these plans have on the Italian South.

Over a third of Italian national production in terms of electric energy from renewables comes from the Mezzogiorno thanks to frequent, steady winds and abundant sun radiation. In particular, the Mezzogiorno leads Italy in terms of wind power, almost a third of which is produced in Puglia (Bianchi *et al.*, 2022). SVIMEZ, an industrial think-tank who advises the Italian government's policy on economic development in the Mezzogiorno, calls for further investment in these two sectors of renewable energy: "investing in renewables is not only apposite to strike a new balance between the economy and the environment, but also to define the contours of a post-pandemic recovery with structural and long-term effects" (ivi, p. 594)[6]. In the wake of COVID-19, renewables are poised to serve not only the need to reduce negative externalities of production but also to pick up the economic pace, to the supposed benefit, specifically, of the lagging South of the peninsula. This intention aligns to the global goal of "sustainable growth", one which evades the "empirical flimsiness of the possibility of an absolute decoupling of economic growth from carbon emissions and damaging resource exploitation" (Green, 2022, p. 334). Yet, from SVIMEZ's analysis, Puglia emerges both as the main regional thrust along Italy's path toward sustainable development and, once again, as a key asset in reorganising national production. To meet PNIEC's plan of decarbonisation by 2030, in fact, SVIMEZ suggests doubling the installed capacity of wind infrastructure (Bianchi *et al.,* 2022, p. 585-586) and allocating to Puglia 24% of necessary national investments in wind energy (ivi, p. 588). But the reorganisation of production must *land* somewhere: SVIMEZ's productivist policy suggestion is a litmus test for the Green Transition's productivism overall, in that in aiming for the resumption and expansion of the national economy, it

glosses over the fact that economic production entails material social and environmental consequences. The impacts of such a plan would add onto existing territorial dynamics and befall on the regions of southern Italy: Puglia in particular, and already-deprived areas with predominantly rural landscapes such as the *Capitanata*, bear the brunt of the Transition.

Structural intervention against persistent economic and social lack has indeed been a stated intention of Italian governments since the post-unitary period. Focusing on the Italian South allows us then to home in on the ways in which green transitional planning builds on racial, spatial, temporal, and economic differences between a modern, mature Northern Italy and its backward, archaic South. As put by scholar Marta Petrusewicz, the so-called *questione meridionale* [Southern Question] is an "expression" for the broader Global North-South dichotomy, in that it "describes along a geographical axis the differences of development, both in nature and outcome, according to several binary oppositions: rich versus poor, modern versus backward, capitalism versus non-capitalism, and so on" (2012, p. 17). Since Italian *Risorgimento*, and through discursive and material configurations that traded directly on European colonial imaginary, "the Mezzogiorno", as an idea and geography, acted as a repressed dark side of the new nation-state: an *internal* difference which anticipated and has intersected other figures for the Other and their space, which operated, in turn, as *external* differences (Conelli, 2022). In this sense, the Mezzogiorno has come to be the backward South *within* the defaulter, southern EU member-state of Italy (Curcio, 2014).

This dominant discourse has sanctioned strategies for a predominantly exogenous and localised accumulation of capital and power in the (Global) North. In effect, post-war Italy developed following a form of "internal dualism" (Rossi, 2014, p. 45), whereby the Italian Mezzogiorno acted first as a labour reserve and then as a space for the decentralisation of production. This binary relation between a developed North and a backward South works, in effect, as a "fundamental norm in the construction of control apparatuses for the South and for internal migrant labour" (Amendola, 2014, p. 55) which reproduces the very gap it seeks to overcome in order to maintain the Mezzogiorno in a relation of exploitation and dependency to its capitalist core(s). One dare say underdevelopment is a necessary function of development (Ferrari Bravo and Serafini, 2007) and that this internal dualism fosters a form of internal "developmentalism" whereby "the perception of a "gap" or belatedness in economic development is constructed as the main problem to be addressed through poli-

cies that actively promote development itself" (Mezzadra and Neilson 2019, p. 123).

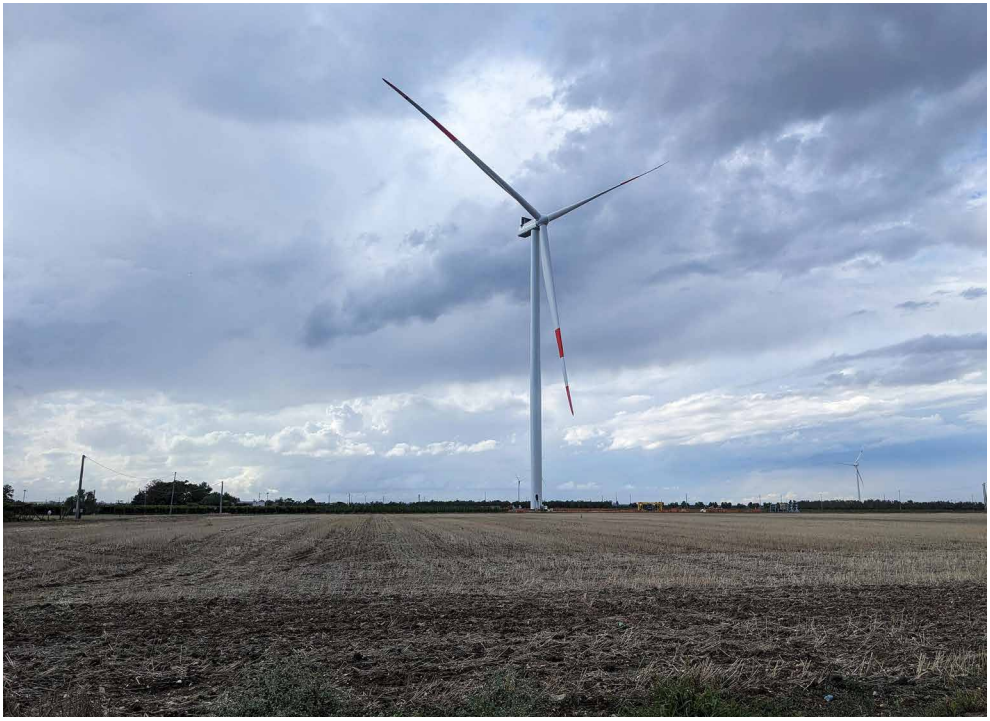
Planning plays a key role in articulating this developmental paradigm, even within the Green Transition. Decades of such developmentalism and years of neoliberal austerity which have furthered hardship, debt and abandonment in entire territories and populations of the Italian South, now thus intersect challenges presented by the contemporary shift to more environmentally attuned modes of production; above all, in terms of energy. In this sense, the PNIEC, the PTE and the PNRR aim at reducing the economic and social gap between Northern and Southern Italy, thereby stimulating employment in renewables and sustainable production, as well as territorial cohesion by way of major economic development and green infrastructure—but the extent at which these plans will not reproduce the developmental lack they seek to overcome remains an open question.

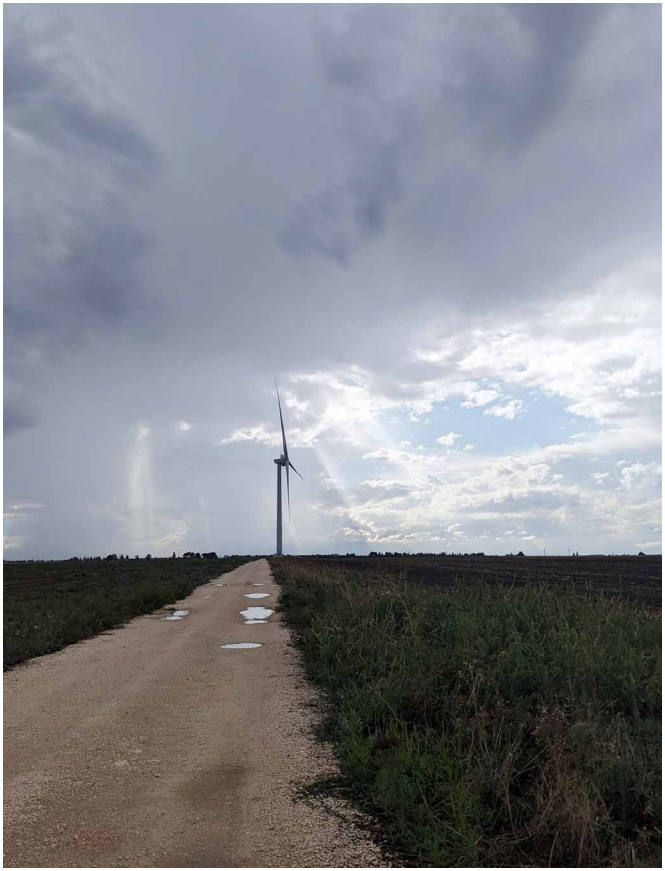
At the local scale, Puglia's *Piano Paesaggistico Territoriale Regionale* (PPTR) is one of the main tools for planning the (productivist) Green Transition. Energy is central to the former's objectives. Indeed, the PPTR guidelines are organised in three thematic areas—wind power, solar power, and biomass. Overall, these guidelines constitute "an energetic project" that sets out to strengthen the relationship "between energetic intensity and territory" (ivi, p. 10). In fact, the plan detects a high potential "to exploit renewable energy in the region" and "promote the agglomeration of wind and photovoltaic facilities" within production districts, so as to prevent further infrastructuring and mitigate their effects to the landscape (ivi, p. 8). Each of the three sections of the guideline document indicates "instructions" regarding the position of wind infrastructure in the Region and "suggestions" regarding its integration into the landscape at both a territorial and architectural scale.

The guidelines thus posit "wind power as a landscape project". In doing so, they explicitly acknowledge a two-fold synergetic and conflictual implication of these energetic landscapes, while stressing the fact that "aspiring to the integration of wind power infrastructure within the landscape is a pointless effort; rather, wind power infrastructure must become part of the landscape and its forms must contribute to highlighting its specificities" (ivi, p. 32). The PPTR's guidelines resign to wind power infrastructure's unavoidable presence and align to international strategies that aim at the "management" of the landscape rather than its "protection" when it comes to wind turbines. The synergetic goal is thus to work "while producing pleasant landscapes", that is, "in order to create a new landscape or refurbish an existing landscape through wind

power infrastructure" (ibidem). Such a goal brings forth the SEN's intention to mediate the impact of energetic intensity on environments and steward the landscape by "committing areas that cannot otherwise be valorised to the production of renewable energy" (ivi, p. 9). With this in mind, the PPTR's guidelines suggest clustering medium and large wind turbines in industrial areas or close to already environmentally-compromised extraction sites; make a push for smaller-size turbines which foster localised production and consumption; focus on inter-municipal planning instruments; and, finally, promote distributed partnerships and shareholding to reduce social conflict (that is, involving local actors within the decision process and creating new employment, in order to make infrastructure more acceptable to local groups).

If a new green infrastructure or production facility can potentially have negative environmental impacts, it has to go through an obligatory environmental impact assessment (*Valutazione di impatto ambientale* - VIA). The number of projects that require a VIA procedure in the province of Foggia is four-fold compared to the other provinces of Puglia (Bari, Barletta-Andria-Trani, Taranto, Brindisi and Lecce)[7]. Of course, this is due to the significant size of the province, but also an indication that Foggia's municipality is the powerhouse of the Region's transitional economy. Of the 514 projects certified by VIAs, the large majority (77%) comprises agrivoltaics (228) and wind turbines (158, plus 10 offshore sites). While the reason behind such a large number of agrivoltaics is evidently linked to the fact that Foggia's province contributes significantly to national agro-industrial production, the insistent presence of wind turbines depends on a series of other factors: ideal regional wind patterns, surrounding orography and topography (their so-called roughness), existing urbanisation and planning regulations, infrastructural viability and connectivity to the national grid. Finally, the efficiency and productivity of wind power depend on the speed and frequency of wind, as well as the size of turbines and of wind farms themselves (Bianchi *et al.*, 2022, p. 585). Following this framework and by overlapping several more specific criteria (regarding the environment, the landscape, historical-artistic heritage, agri-food and rural traditions, biodiversity), the PPTR defines the territorial grounds for the development of wind power infrastructure. The result is that areas south-east and north-west of Foggia are the most apposite for these plans. At the time of the PPTR's publication (early 2015), Foggia's province already ranked first in terms of number of wind turbines (PPTR, 2015, p. 21) and hosted almost 80% of total turbines in the Re-





Wind turbine east of Orta Nova.
Source: Stefano Mastromarino.
Fig. 2-3

gion (ivi, p. 24), to the point that, as put by the PPTR's intervisibility map, from *nowhere* in the province could one not see their unmistakable shape and motion (ivi, p. 28).

Since the PPTR instructs local plans to distribute wind turbines in cropland with low productivity, industrial areas and environmentally damaged extraction zones, Foggia's province perfectly responds to all these criteria. At lower altitudes, the south-east of the province presents favourable climatic conditions, good infrastructural connectivity, sparse towns, if not run-down isolated housing, industrial areas and vast expanses of parcelled agricultural land. In this sense, rather than the tightly-packed wind farms of the windier *Subappennino Dauno* to the West, this

contribution will consider an area South-East of Foggia located between the towns of Borgo Mezzanone, Borgo Tressanti, Orta Nova and Stornara: a key circular and voluminous area, indeed a three-dimensional *disc*, which, due to specific natural-infrastructural conditions, is key to the green development of the Region. In particular we will focus on three of the larger recent projects, both built and unbuilt, in this part of Foggia's province: the wind farm in the municipality of Ortanova (FG), located in an area called Lampino, the wind farm in Borgo Tressanti and the "Parco Eolico Borgo Mezzanone" in the homonymous town.

Wind Power. Orta Nova, Borgo Tressanti and Borgo Mezzanone

The capital fuelling this territorial transformation is both private and public. Major energy companies are the most active in economic investment in renewables, including wind power. To a lesser extent, also small to medium-size companies or foreign investors own or co-invest in Italian

wind farms. In some cases, public entities or state-owned companies (municipalities, consortia, or regional governments) may own shares in wind farms or lease public land to private operators in exchange for royalties. Part of this arrangement are private landowners who—often due to the low profitability of agricultural production—lease their land to wind energy operators, receiving compensation in the form of a fixed annual rent (usually, per turbine installed) or a percentage of the revenue generated by the wind farm. The electricity generated by wind farms is distributed through the national grid, managed by Terna (the Italian transmission system operator), which, in turn, feeds local distribution companies. Operators thus sell energy on the electricity market, often with the benefit of government incentives and premium prices, or through long-term contracts at fixed tariffs. Within this structure, however, one should neither overlook the social conflicts that underlie its processes of accumulation

(Lipari, 2020) nor how the volatility of energy prices and provision, government incentives, as well as the territorial rent-gap provoked by the Green Transition—equated to the sole question of energy—provides the grounds for on-going financial speculation in renewables.

The construction of wind infrastructure in the *Capitanata* reflects this organisation. Since late 2017, ten projects for wind-energy infrastructure have been implemented within this territory (ca. 50 sqkm) and one assessment is underway at the time of writing. These projects amount to 148 wind turbines within a small portion of the agricultural landscape of Foggia. The visual impact is significant, as the tall silhouettes of turbines rise from the flatlands of the *Capitanata* to interrupt the view of the hills toward Basilicata, as well as toward the eastward marine horizon.

Turbines produce energy by capturing and transforming wind energy into mechanical energy and then, thanks to a generator, into electric energy. Wind driven electric generators are called aerogenerators. By the mid-1920s much of such a technology was well known and has since developed in terms of size and yield following the familiar three-blade model (Gipe and Möllerström, 2022). The Oil Crisis of the 1970s sparked renewed interest in wind power as a substitute mode of energy production that would bypass the scarcity or geopolitical interruption of fossil resources, pushing the technological boundary up to the standards of Modern Wind Turbines (MWTs). In the 2020s, MWTs now have rotor diameters of over 150 metres (Gipe and Möllerström, 2023), whose blades' swept areas move huge volumes of air. We might consider 100-metre-high towers as an average for the kind of wind turbines deployed in the *Capitanata*, a size which requires a three- to five-times the height of the tower as a distance between each structure (Bianchi *et al.*, 2022).

The turbine project in Lampino comprises nineteen 4.2 MW turbines over a 1000 ha surface area located at about 3 kilometres from Orta Nova. The tip height (rotor plus tower) of these turbines is 180 metres. As the project description reads, quite intuitively, the actual covered area is less than 1000 ha, since it actually amounts to the space needed for each of the structures' foundations, installation site and service roads. Twenty-five-metre-deep foundation piles and a twenty-metre diameter foundation plates support the structure, while large level areas are created to hoist its components up in the air with cranes during installation. But this does not include the indirect land use of wind turbines, which precludes certain other activities once turbines are installed, due to their safety, logistics and size/distribution requirements.

But along with these more recognisable featu-

res of wind energy production, turbines entail "connection operations", that is, a network of underground and superficial infrastructures that support them and link them to the national system of power distribution. This element of connectivity comprises new *in situ* power grids and electrical substations, fibre optic monitoring systems, as well as kilometres of excavations for voltage cable conduits, local road-network renovation or extension, and other ground interventions for the construction site and its complex logistics. These operations carry on into the turbines' end of life. In fact, wind turbines finally also present problematic issues regarding their decommissioning. After 20 to 30 years, turbines need to be dismantled, renewed or repurposed. This operation means replanning roads, installation sites and earthworks, as well as planning future use. In this sense, as part of decommissioning, current legislation requires the project in Lampino to plan rewilding and a return to agricultural activity[8].

These operations together potentially (but not necessarily) alter land-use—in this area, most often to the detriment of agricultural land—increase local infrastructure, modify surrounding environments, such as ground- and superficial waters, disturb the fauna (bats and birds in particular), produce air and noise pollution, generate vibrations and electromagnetic fields and, finally, create a radically new landscape to be confronted by local inhabitants. VIAs assess the risk produced by these factors to the environment during construction, activity and decommissioning, and describe different degrees of risk in terms of visibility, size and period. The combination of these results informs specific regulations regarding preventive measures, while setting guidelines *vis-à-vis* the construction process and subsequent intervention or activity in the area (land use, re-naturalisation, buffer zones, traffic, etc). However, the reasoning of VIAs does not always come across as convincing. We might get a taste of this paradox by quoting at length the section regarding the wind turbines' impacts to the landscape from the public documentation for Borgo Tressanti's VIA procedure (2024, p. 70-71):

> Overall, in terms of visibility, the design is only actually perceived by the visitor in areas close to the facility itself. In fact, it is enough to move just 2-3 km and their [turbines] clear view is absorbed by the pre-existing anthropized landscape, which is rich in linear vertical elements (such as pylons, other wind turbines in operation) and horizontal volumetric elements, apparently considerably smaller in size, (such as business buildings, properties scattered along the main road, and visible residential centres, rows of trees along the road, etc.), which as a whole, however, create a visual barrier once they interfere in the perspective between the facility and the visitor. The potential impact on the landscape during installation will therefore have permanent duration, local extension and evident entity. In

A wind turbine being installed east of Orta Nova; in the foreground, the new road to it.
Source: Stefano Mastromarino.
Fig. 4

order to minimize the visual impact of the various structures of the project and contribute, as far as possible, to their integration into the landscape, the following solutions will be adopted:

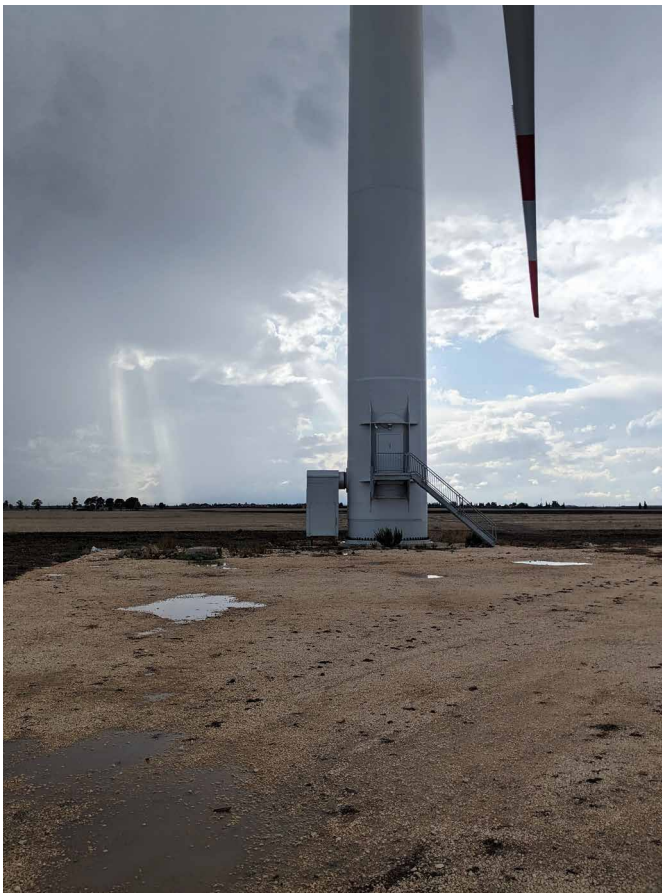
- coating the wind turbines with anti-reflective and chromatically neutral paints in order to minimize the reflection of sunrays;
- avoiding any type of fencing to make the presence of the facility "friendlier" and, above all, to allow activities detected ante operam to continue (cultivation, grazing, etc.);
- leaving the service road unpaved, using exclusively natural draining materials;
- burying all the cables that serve the facility.

The wind park in Borgo Tressanti comprises 13 turbines with a 114-metre-high tower, whose 172-metre-wide rotor has a nominal capacity of 7.2MW (4.5 MW on average), for a total of 93,6 MW—roughly, the substitute equivalent of a thermal powerplant producing 96 tonnes of CO_2 a year (ivi, p. 5). According to Borgo Tressanti's VIA, existing anthropic features of the area—i.e., low buildings and a number of pylons in an almost entirely flat, cultivated and sparsely-urbanised area—mitigate the high structures, all the more so if such ele-

ments (towns, houses or warehouses, but also trees) interfere in the perspective between the structure and "the visitor". Moreover, the vertical figures of other, existing wind turbines are used to explain a supposed harmonic relation to the surrounding landscape. Neutral colour finishing and paint, the absence of physical barriers or exposed conduits, as well as the fact of leaving (often newly built) service roads untarmacked, are suggested as "solutions" to integrate the turbine within the landscape. Finally, the presence of other wind turbines is put forward as a way to support the design of new ones. These solutions set out to make such an integration "friendlier" and to allow pre-existing activities (that is, agriculture and grazing) to continue. The impact, nevertheless, the report concludes, will be "permanent", "local" and "evident".

Of course, the point here is not to make smart puns on the verbal somersaults of the report, nor to deny the irrevocable need for cutting emissions and stopping the considerable environmental harm of fossil energy production, but rather to emphasise a somewhat quixotic presupposition which underlies this, and other, wind-turbine projects. More importantly, perhaps, might we justify the design of new wind turbines by way of already-existing wind turbines? To what extent do strategic reports and planning instruments foster the Green Transition's productivism? Overall, the PPTR's guidelines are a set of thoughtful suggestions that steer clear from the convoluted manoeuvres with which Borgo Tressanti's VIA attempts to "hide" 100-metre-high turbines behind a tree. Yet, in giving up on the inevitability of wind turbines—as it cannot truly do otherwise insofar as it aligns to the national policies—the PPTR does not put into question the productivist tension of the Green Transition: its growthist compulsion to produce, and thus build, *more*.

We might further highlight how such questions are inscribed in or answered by regional planning tools and do so by way of another wind turbine project in one of the territorial disc's quadrants mentioned above. The wind farm in Borgo Mezzanone will be even larger than Borgo Tressanti's. While the Ministry of the Environment and Energy Security's public repository confirms the project has been accepted, its implementation is yet to take place, possibly due to the conflictual nature of the project. Twenty-four 150-metre-high towers with a 158-metre rotor amass a total 130 MW of electric power, enough to provide for about 50.000 families. The specificity of this project is that of aiming, adamantly, at combining landscape design features with energy production, as put by the *Piano Paesaggistico Territoriale Regionale*. This intention is in fact legitimated by the "decay"



Wind turbine east of Orta Nova
Source: Stefano Mastromarino.
Fig. 5

[*degrado*] or abandonment of the area, an aspect tackled by the guidelines for wind infrastructure contained in Puglia's PPTR.

The project's 24 wind turbines are planned around the so-called "Ghetto" of Borgo Mezzanone, an unauthorised settlement on the premises of a former air base in which two to four-thousand migrant workers live, depending on seasonal production, nearby a temporary reception centre (former *Centro di Accoglienza Richiedenti Asilo* - CARA). The ghetto, one of the biggest "slums" or "informal settlements" in Europe or, rather, "a central infrastructure of rural capitalist development" (Raeymaekers, 2024, p. 159), comprises shacks made of metal sheets, wood and other scrap material; huts in tuff or concrete blocks; small buildings in rebar and concrete superstructure; caravans and cars; interventions on the building units of the former airport or former CARA. Specific capitalist relations, unauthorised activities and officially unsanctioned forms of life make the ghetto "an outside space where people who are not considered worth governing through

the "lightness" of formal regulations are deliberately segregated and marginalized, while at the same time deprived of their ability to act autonomously" (ibidem). The PNRR plans to "overcome" this and other similar settlements as part of its objective to eliminate *caporalato* and other illegal activities[9].

On the other hand, the small settlement of Borgo Mezzanone was built in 1933 as part of the programme of internal colonization initiated by Mussolini's fascist regime, a prolongation of Piemonte's and liberal Italy's colonization projects and precursor to the post-WWII internal dualism mentioned above. In fact, building on similar earlier plans of post-unitary Italian governments, Mussolini's project favoured the mass transfer and settlement of predominantly rural populations to depopulated, untapped and conflictual areas of Italy, within the politically motivated Fascist ideology of ruralism, populationism and productivism (Protasi and Sonnino, 2003). Much closer to Foggia than to its local government in Manfredonia, roughly 400 people now live in Borgo Mezzanone. The totalitarian ambition to create an agrarian economy based around the spatial-productive model of the *Capitanata*'s rural towns has today turned into forms of rural segregation, isolation and abandonment which aggravate the modern-paradigmatic conflation between rurality and backwardness (Fanizza, 2012; 2015). The presence of the ghetto, its "immigrants" and seemingly overriding *caporalato* dynamics further entrench this condition by creating a stigma of decay, lawlessness and "blackness"[10] which, in dominant narratives, by now almost entirely coincides with the settlement's notoriety. Under the pressure of economic hardship, neglected built environment and basic infrastructure, depopulation, institutional desertion and racism, social relations in Borgo Mezzanone have suffered from the dynamics of what we might call *rural organised abandonment*. If Ruth Wilson Gilmore (2007) famously posed that the "organized abandonment" by capital and the State amounts to a form of planned, structural disinvestment in specific social groups and the replacement of social and infrastructural safety by way of compromised services[11], we might call *rural* organised abandonment the ways in which this governmental logic acts on the specificities of the rural lower-class and undocumented migrant people within a territory and landscape of intense agro-industrial production. In doing so, this governmental logic works in parallel to the selective process of inclusion/exclusion (Mezzadra and Neilson, 2013) and "the fundamentally racialized and gendered organization of agri-

cultural production and reproduction" (Raeymaekers, 2024, p. 159). Rural organised abandonment, in other words, is part and parcel of the logic of capital.

In this context, the plan for Borgo Mezzanone explicitly picks up on the PPTR's instructions to turn wind power infrastructure into a landscape project. While noting "some wind turbines which seem to harmoniously enter into dialogue with the rural surroundings" (PPTR, 2015, p. 6), the plan detects many run-down, dilapidated or abandoned farmhouses, unkept dirt roads, illegal dumps and demolition sites in the area, which might be turned into valuable elements of a renewed historical-cultural rural landscape. The turbine project seizes on this form of rural abandonment and social deprivation as an opportunity to *valorise* through "structural and immaterial renewal" (ivi, p. 5) the "partly compromised" environment of Borgo Mezzanone. In doing so, the plan explicitly quotes the PPTR's intention to turn wind power into an opportunity to renew territories which have been already affected by human intervention (ivi, p. 16). For example, the project detects the presence of agricultural production and agricultural building units or farmhouses as a means to suggest the area's cultivated landscape is already compromised (ivi, p. 39); the existence of other wind turbines in supposed harmony with their surroundings is used to legitimate further clustering (p. 40); purely quantitative results of crowding and azimuthal indexes are acknowledged as being high but accepted because they do not reach limit values, to the point that "aerogenerators do not alter views of the landscape" (ivi, p. 41). While the landscape project presents wind turbines in a harmonic relationship with the surroundings, on the other hand it defines the former-CARA and the ghetto, along with a biomass powerplant and a large industrial area in the area, as "negative elements". The area is "evidently not only compromised in terms of the environment and the landscape but, *especially*, in social and economic terms" (ivi, p. 45, emphasis added). On the contrary, the new turbine project will act as a "centre of attraction", a "real park" comprising several touristic and cultural elements (land art, cycling lanes, educational trails and "oasis", and the valorisation of individual farmhouses) distributed among the wind turbines. The former airbase will be turned into a park for open-air equipment and activities to be defined in collaboration with local institutions. This "Resource Park", the project description reads, will supposedly benefit the population and buildings of Borgo Mezzanone.

Gyratory planning?

In June 2025, the *Commissione Tecnica di Ve-*

rifica dell'Impatto Ambientale (CTVA) partially approved the VIA for the wind farm in Lampino and requested changes to the plan; the same month, the VIA for the project in Borgo Tressanti was refused by the Regional Landscape Authority and a decision on the following resubmission is pending; the third, in Borgo Mezzanone, was approved by the Cabinet in 2022, in order to overcome diverging positions regarding the project between the former Ministry of Ecological Transition and the Ministry of Culture. The form of rationality espoused by the visionary project for the wind park in Borgo Mezzanone in particular allows us to move toward a preliminary critique of the PPTR's guidelines intention to cluster wind power infrastructure, by contesting its underlying *gyratory* and "sacrificial" logic, one which moreover invokes a discussion of the productivism of green transitional planning, specifically in relation to energy. Through the PPTR, in fact, the Green Transition in Puglia seeks to turn socio-environmental deprivation into value, in a way that, particularly in Borgo Mezzanone's wind park project, hardly comes across as anything else other than the exploitation of productive labour power and the appropriation of Nature's unpaid work/energy (Moore, 2015, p. 51-74). In doing so, the PPTR aligns to an agenda which prolongs into current decarbonisation efforts the legacy of past productivist economic plans (Green, 2022), as well as the dynamics of internal colonialism and uneven development which, as suggested, are articulated in Borgo Mezzanone through a specific, yet structural form of rural organised abandonment.

First, picking up on the directives of higher-level national strategies, the PPTR suggests locating wind turbines in cropland with low productivity, industrial areas and environmentally irreparable sites, positing wind power infrastructure as a form of landscaping. All projects mentioned above, in this sense, trade on the cumulative negative aspects of existing anthropic features and environmental damage—detrimental characteristics of the landscape—to argue for further infrastructuring, in such a way seemingly contravening the PPTR's guidelines to avoid over-densification. Signs of this legitimising anthropic degradation are understood in spatial-environmental terms, but also, as Borgo Mezzanone's wind park shows, in social terms: the presence of illegal(ised) settlements or the effects of rural organised abandonment enacted on rural and migrant populations are pre-conditions for the proliferation of wind turbine projects, and thus a legitimation for further urbanisation, infrastructure, intervention. The presumed informality of the Ghetto becomes the legitimating grounds for *formal* intervention;

the dire social conditions in town become an argument for large-scale "sustainable" infrastructure. In doing so, for instance, Borgo Mezzanone's ghetto is consigned to a vague regeneration plan, as the group of turbines are planned to loom over the small rural settlement or even directly over the former airbase where the ghetto is currently located. This prefiguration suggests the project's intention to proceed as if highly conflictual contextual specificities did not actually exist, or as if high-powered conflict was actually a reason for large-scale infrastructuring.

Second, in either case—whether existing *degrado* is referred to the landscape or to social conditions—wind turbines are conceived as propellers for the positive effects of the Green Transition. Yet, such effects are not entirely clear at the local scale. How exactly would sky-high wind turbines renew the historical-cultural value of Borgo Mezzanone? In all projects mentioned above, one of such positive drivers is the production of energy from renewables due to the fact it contributes to cutting pollution levels. But such a beneficial effect of wind turbines arguably has to be assessed at the level of regional, national, if not global emissions, rather than direct, local impacts. While wind power will contribute to reducing emissions, its most concrete, tangible effects land in the immediacy of a specific territory. Wind power infrastructure in these documents is poised to be "attract factors" or crucial elements in reducing emissions and bringing about a sustainable future, leaving to the side the fact these very welcomed and urgent impacts invoke a totally different temporality and scale: wind turbines, in this sense, benefit everyone but their effects ultimately rest on the backs of the poorest and most deprived territories. In having to minimise the impacts to the landscape by clustering turbines in area that are already environmentally (and thus socially) compromised, it cannot but pave the way for the creation of dumping sites for the negative externalities of capitalist production. If production, along with jobs and (the possibility of local) economic revenue, is the undisclosed and overriding metric to assess a project's viability, its social and environmental impacts (their actual *sustainability*) are simply swept under the carpet. Rather than a mere "aesthetic" dimension of the landscape, wind power infrastructure brings up the vexed question of who and where production will land. An issue which trades on the developmental lack highlighted above that builds on the historical and geographical inscription of the Mezzogiorno within global North-South uneven relations.

Third, the rationale behind the turbine projects in Borgo Tressanti, Lampino and Borgo Mezzanone comes across as gyratory, or circular and winding: in all projects, the presence of wind

turbines in seemingly harmonious and unjustified relation to the surroundings is a reason for *more* infrastructure. Wind turbines call for *more* wind turbines, infrastructure licences *more* infrastructure, and thus, in turn, abandonment warrants *more* abandonment. The VIA assessments in particular expose a vicious circle whereby turbines are legitimised by their very presence, a *petitio principii* that reflects the autotelic structure of capitalist accumulation (Nancy, 2007). Planning tools such as the PPTR align to this principle, insofar as it promotes more turbines, and thus—considering how structural developmental intervention in the Mezzogiorno has been planned in post-unitary Italy—more abandonment. In other words, gyratory planning upsets the possibility that the Green Transition should move toward a decelerated political economy, insofar as it exposes the productivism at work in green energy production.

But where will the politics of the Green Transition spatialise and who will bear the (inevitable) consequences of green capitalist development, that is, who will bear, endure—indeed, sustain—"sustainability"? Which territories and populations will energise the production of renewable energy? This productivist tendency in Foggia's province, as elsewhere, furthers the densification of wind energy infrastructure. Some specific territories, in the Italian South in particular, as SVIMEZ's indications suggest, will thus bear the pressure of a "just" and "green" transition "for all". In this sense, we might detect in Foggia's province a logic subtending the creation of "green sacrifice zones", that is, the designation of territories (or segments thereof) in which socio-ecological environments and populations "will be affected by the sourcing, transportation, installation, and operation of solutions for powering low-carbon transitions, as well as end-of-life treatment of related material waste" (Zografos and Robbins, 2020, p. 543)[12]. In the Green Transition, unwanted or toxic energy infrastructure "will invariably migrate to communities that lack the political, social, and economic strength to oppose them, especially indigenous peoples and communities of color, often at the extreme social and geographical periphery of society [...] reinforcing environmental injustices and degrees of environmental racism" (Brock *et al.* 2021, p. 1762). Due to the history of capitalist development and to geo-climatic conditions, predominantly rural areas are set to be the socio-ecological frontier of the Italian Green Transition, creating green sacrifice zones which trade on the dialectics of the State's internal dualism—a cultural-economic "gap" kept in place by developmental policies for the end of capitalist accumulation—while exacerbating the peripheralization of populations under strategies of rural organised aban-

donment, such as, most evidently here, Borgo Mezzanone. In this sense, the (green) economy of the Transition, the socio-ecological characteristics of localised territories and landscapes will be renounced for the sake of national, and international, economic and political interest. In this context, the Mezzogiorno, as an idea and geography aligned to (Global) North/South differences, will be—once again—the frontier of capitalist accumulation through the appropriation of Nature's unpaid work and energy. Under such auspices, this situation offers little hope for energy and environmental justice (Scott and Smith, 2017; Knuth *et al.*, 2022).

This sacrificial logic is enabled, arguably, by a form of sustainability predicated on an overruling economic and productivist basis, one which commits to guaranteeing more jobs and economic security, while sweeping under the carpet the long-standing questions of environmental and social harm. In this sense, the PPTR understands sustainability in strictly economic terms and the Green Transition as a productivist project. The critique of such a project should not thwart the necessity to think of ways out of carbon-fuelled production, nor negate attempts by the PPTR to face the complex relationship between energetic intensity, territory and the landscape. Other than the so-called "forest effect" [*effetto selva*] caused by the excessive number and asynchronous rotation of turbines in a specific area, the intangible, seemingly unobtrusive dimension of wind power renders the contradictions of capitalist development even more delicate. Indeed, wind turbines emerge as a form of specific transitional planning in which the size and contradiction of wind turbines requires a scale of design whose very territorial and vertical—if not voluminous (Billé, 2020)—dimension requires us to think of a form of "unmaking": ridding ourselves of "any of our past illusions, such as those related to Progress or to 'cheap nature'", while undoing or avoiding the construction of "that which harms us" (Neyrat, 2019, p. 185). In Italy, the effects of this form of transitional planning are superimposed onto the (North-South) national geographies of uneven development and intersect other forms of structural exploitation and appropriation that constitutively define capitalist modes of production.

Notes

[1] This research owes to the collaborative research project "Al di là del campo. Indagare opacità, forme e visioni del superamento come logica territoriale" (research fund from the Politecnico di Torino, DIST - Interuniversity Department of Regional and Urban Studies and Planning) which focuses on current plans of "overcoming" informal settlements in agro-industrial production in Foggia's province. See: https://inappropriable.com/about

[2] Photovoltaic solar energy would invite similar questions, which could moreover be investigated in the same territory that is being examined in this paper. However, such a reflection falls beyond the space and scope of this research. For a critical introduction on the question of solar energy and technology in relation to capitalist modes of production, see Roos and Hornborg, 2024. On the territorial logic of photovoltaic energy see Brock et al., 2021.

[3] See https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/energy-and-green-deal_en

[4] Along with the Authority for the Regulation of Energy Networks and the Environment [Autorità di Regolazione per Energia Reti e Ambiente], the highest authority on energy in Italy is the Ministry of the Environment and Energy Security [Ministero dell'Ambiente e della Sicurezza Energetica]. The name already reveals the three-fold geopolitical nexus of war-energy-security that has forcefully made its way in recent years, particularly since 2022. On today's war regime through the lens of energy see: Padovan and Grasso, 2024.

[5] A thorough analysis of colonialism and coloniality in the Italian South, as well as of the militant and intellectual echoes between the literature on the Italian questione meridionale and post- and de-colonial theory and practice, is beyond the scope of this article. For a critical introduction on the intersections between (post-)workerism and post-/de-colonial theory, see, in particular, Mezzadra, 2008; Mellino, 2012; Orizzonti Meridiani, 2014.

[6] All quotes from planning documents are translated from Italian by the Author.

[7] This and all data that follows is elaborated from the Italian Ministry of the Environment and Energetic Security's public repository.

[8] Indeed, decommissioning is a problematic and currently unresolved area of wind turbines life cycle. Its blades in fact cannot currently be recycled. See, ANEV et al., 2021.

[9] On Borgo Mezzanone's ghetto and its treatment by broader national policies, please see our collaborative effort https://inappropriable.com/

[10] This term is here intended in its literal, sensible meaning of "colour"—as portrayed by dominant narratives—without alluding to the elaborate ontological claim proper to Black Studies.

[11] Ruth Wilson Gilmore defines organised abandonment as the "state-sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death." (2007: 28).

[12] For a discussion on wind farms as sacrifice zones, see (Karam and Shokrgozar, 2023)

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